

Monthly

Prepp

Current Affairs

Notes

August 2022



Mineral Security Partnership With US



Access to Clean, Healthy environment as Universal Human Right



Direct Election of Nagar Panchayats, Panchayat Heads



Reinvigorating the Chabahar Port

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GENERAL STUDIES 1

Salient Features of world Geography, Distribution of Key Natural resources across the world, Important Geophysical Phenomena such as earthquakes, Tsunami, Volcanic Activity, Cyclone etc

DEPLETION IN GROUNDWATER LEVELS

Priority: Medium



Primary Source: PIB

Prepp Prelims Booster: Groundwater Resources

Prepp Mains Booster: Distribution of Key Natural Resources

Context:

Recently, the Minister of State of Jal Shakti Ministry, in a written reply to Rajya Sabha informed that as per the recent study done by Central Ground Water Board (CGWB), groundwater levels in some parts of the Country are declining.

What was the reply regarding the groundwater depletion?

- According to the data gathered by the CGWB in November 2021 and compared to the decadal mean of November 2011 to November 2020, roughly 70% of the monitored wells have seen an increase in water level, while the remaining 30% have seen a decrease, generally between 0 and 2 meters.

What is the present status of groundwater depletion in India?

- According to the CGWB, many areas of India are experiencing a growing groundwater shortage because of the 230 billion meter cubes of groundwater that are extracted annually for irrigating agricultural regions.
- The irrigation is the largest category user in the nation, using 89 percent of groundwater that is taken.
- The groundwater used for household purposes, which makes up 9% of the extracted groundwater, comes in second. Groundwater is used by industry 2% of the time.
- Ground water also meets 50% of the needs for urban water and 85% of the needs for rural domestic water.
- The Central Ground Water Board states that a safe annual groundwater withdrawal is one where the extraction rate is kept to not more than 70% of the annual replenishable recharge.
- Recent studies have shown that groundwater levels are dropping in a number of locations in northern India, particularly in areas with dense populations.
- According to the information that is currently available, the country's extraction rate increased from 58 percent in 2004 to 63 percent in 2017.
- Regionally, the level of groundwater extraction differed. The 70% threshold has been passed by Punjab, Rajasthan, Haryana, Delhi, Chandigarh, Himachal Pradesh.
- 202 of the 534 districts in 22 States and UTs had extraction stages ranging from 71% to 385%.

- Added to that, the quality of the groundwater is also getting affected. A district that is safe in terms of quantity has become vulnerable when the quality of the water declines. Major issues include contamination with fluoride, iron, salinity, nitrate, and arsenic.
- Compared to 109 districts in 2006, up to 335 reported nitrate pollution in 2017. Human health is impacted by elevated nitrate levels.

What are the reasons for the depletion of groundwater?

- Increased demand:** Groundwater resources are being overused as a result of rising household, industrial, and agricultural water demands and dwindling surface water supplies.
- Limited storage facilities:** because of the hard rock terrain, with the additional drawback of little rainfall, especially in the states of central India.
- Green Revolution:** Groundwater was over extracted as a result of the Green Revolution's ability to make water-intensive crops grow in areas that frequently experience drought and water shortages.
- Rapid depletion** results from routinely drawing groundwater without first waiting for its recharge.
- Electricity subsidies and high MSP for crops** that require a lot of water are other major contributors to depletion.
- Industrial Needs:** Water contamination, such as that caused by septic tanks, landfills, leaking underground gas tanks, and excessive fertiliser and pesticide use that harms and depletes groundwater supplies.
- Federal Concern:** Because water is a State matter, efforts on water management, such as water conservation and water harvesting, and providing enough drinkable water to inhabitants of the nation fall primarily under the purview of the States.
- Water contamination:** Groundwater resources are harmed and depleted as a result of water contamination from sources like landfills, septic tanks, leaking underground gas tanks, and excessive fertilisers and pesticide use.
- Inadequate regulation:** Groundwater laws that are not properly enforced encourage groundwater resource depletion with no consequences.
- Pollution of Groundwater:** Groundwater is contaminated and rendered useless as a result of deforestation, inefficient agricultural practices, industrial chemical effluents, and a lack of sanitation.
- Natural Causes:** Uneven rainfall and climate change are two natural factors that are impeding groundwater recharging.

What are the Government Initiatives taken to address the depletion of groundwater?

Atal Bhujal Yojana (Atal Jal)
Jal Shakti Abhiyan (JSA)
Jal Shakti Ministry
Mass Awareness Programs

Promotion of efficient Use of Water
Program for Aquifer Mapping and Management
Atal Mission for Rejuvenation and Urban Transformation (AMRUT)
National Water Policy (2012)

Way Ahead

- **Artificial Groundwater Recharge:** This procedure involves either injecting water through wells directly into the aquifer or spreading or impounding water on the ground to improve penetration through the soil and percolation to the aquifer.
- **Groundwater Management Plants:** By installing groundwater management plants at the local level, you may inform the populace of the groundwater resources available to them and encourage prudent use of those resources.
- **Regular groundwater level assessments** should be made to make sure that there is enough information available for developing new strategies and policies.
- **Assessment of land use:** Research should be done to determine how much agricultural land is used and how much of it is occupied by overtly exploited units.
- This will make it easier to choose appropriate crop designs in water-stressed regions.
- **Modifications to farming practises:** On-farm water management strategies and improved irrigation techniques should be employed in order to improve the water table in places where it is being overused.
- **Agriculture electricity subsidy reforms:** The flat rate of energy negatively impacts the use of groundwater in agriculture, necessitating a redesign of the agricultural power pricing structure.
- **Preventing groundwater pollution** also entails taking measures to reduce and regulate the disposal of industrial waste into aquifers beneath the surface of the ground.
- The coordination of federal, state, and local governments - Actions must be taken to maximise the advantages of groundwater conservation programmes.
- Implementing the **recommendations** made by the **Mihir Shah Committee** in 2016 could involve merging the Central Water Commission and the Central Ground Water Board and creating a national water framework with an integrated viewpoint.

ARIDITY ANOMALY OUTLOOK INDEX: IMD

Priority: High



Primary Source: Indian Express

Prepp Prelims Booster: Precipitation

Prepp Mains Booster: Important Geophysical Phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone, drought etc

Context:

In July 2022, according to the Aridity Anomaly Outlook (AAO) Index just released by the Indian Meteorological Department (IMD), at least 85% of districts in India will experience arid conditions.



What is the Aridity Anomaly Outlook Index (AAOI)?

- The index tracks agricultural drought, which occurs when soil moisture and rainfall are insufficient to allow good crop growth until maturity, leading to crop stress.
- A deviation from the expected value indicates a water deficit in these areas, which could have a negative influence on agricultural activity.
- The Indian Meteorological Department (IMD) has developed it.

Characteristics:

- An actual drought indicator that takes into account water balance.
- The Aridity Index (AI) is calculated across timescales of two or four weeks.
- The actual aridity for each period is contrasted with the average aridity for that time period.

What are the parameters of the AAOI?

- Temperature, wind, and solar radiation values are needed to compute potential evapotranspiration as well as actual evapotranspiration.
- The amount of water that is really evacuated from a surface as a result of evaporation and transpiration is known as **actual evapotranspiration**.
- The greatest or feasible evapotranspiration for a particular crop as a result of evaporation and transpiration is known as **potential evapotranspiration**.

What are the findings of the Outlook report?

According to the India Meteorological Department's Aridity Anomaly Outlook Index:

- At least 85% of districts in India experience arid weather (IMD).
- Only 63 of the 756 districts are not arid, while the remaining 660 are either mildly, moderately, or severely arid.
- 65 of the 196 districts that are experiencing a "severe" level of dryness are in Uttar Pradesh (highest).
- With 33 districts, Bihar had the second-highest number of dry regions. Additionally, the state has a 45 percent rainfall deficit.

- Jharkhand, Haryana, Madhya Pradesh, Delhi, Telangana, Maharashtra, Andhra Pradesh, Jammu and Kashmir, Punjab, West Bengal, Rajasthan, Karnataka, and Tamil Nadu are other districts that are experiencing "extreme arid" conditions.
- A persistent rainfall deficiency in these locations over the past six months is also highlighted by the Standardised Precipitation Index (SPI) on the Drought Early Warning System (DEWS) platform.
- The ongoing kharif sowing has been impacted by the dry conditions, as evidenced by the 13.26 million hectare decrease in the area sown under various kharif crops as of July 2022 compared to the same period in 2021.

What is the Standardised Precipitation Index (SPI)?

- The SPI is a popular measure for describing meteorological drought on various periods.
- The SPI is closely tied to soil moisture on short time scales, and it can be related to groundwater and reservoir storage on longer time scales.
- The Indian Institute of Technology, Gandhinagar (IIT-G) platform's SPI on the Drought Early Warning System (DEWS), a real-time drought monitoring platform, reveals a persistent rainfall deficit in these areas over the previous six months.
- UP, Jharkhand, Bihar, West Bengal, and some regions of the North East are experiencing extreme drought, which could have an impact on their agriculture.

What is the Indian Meteorological Department (IMD)?

- In 1875, the Indian Meteorological Department (IMD) was established. It is a department of the Government of India's Ministry of Earth Sciences.
- It is the main organization in charge of seismology, meteorological observations, and weather forecasting.
- The World Meteorological Organization has six regional specialised meteorological centres, and IMD is one of them.
- The cyclones in the northern Indian Ocean are named by the IMD which is one of the Six Regional Specialized Meteorological Centre (RSMC) of Tropical Cyclones.

WHY LOW WATER LEVELS ON THE RHINE RIVER HURT GERMANY'S ECONOMY

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Rhine River

Prepp Mains Booster: Important Geophysical phenomena such as earthquakes, tsunamis, Volcanic activity, cyclones, etc.,

Context:

Due to the abnormally hot and dry weather, the Rhine river's water levels are extremely low, making it difficult for many ships to travel the vital European shipping route fully loaded.



Rhine River: It is one of the principal rivers in Europe is the Rhine . The river's source is in the southeast Swiss Alps, in the canton of Graubünden. It forms part of the Swiss-Liechtenstein, Swiss-Austrian, Swiss-German borders. The Rhine gradually changes to a primarily western path in Germany and flows into the Netherlands before emptying into the North Sea.

What is the significance of the River Rhine?

- The Rhine is a **key shipping route** for a variety of goods, including wheat, chemicals, and coal.
- It runs from the Swiss Alps to the North Sea through industrial areas of Germany.
- It serves as a **crucial connection between industrial manufacturers and international export terminals** in North Sea ports like Rotterdam and Amsterdam, while canals and other rivers connect the Rhine to the Danube and enable shipping to the Black Sea.

What happens when water levels are low?

- **lighter load:** To avoid running aground when water levels drop, cargo vessels must sail with a lighter load. Recently, some shippers claimed they were **only loading around 25%** as much freight onto ships as usual.
- **The additional cost of cargo:** This results in the need for additional ships to transport cargo that could formerly fit on a single ship, raising the cost of freight.
- Typically, shipping companies can pass on increased expenses to cargo owners, who then pass those prices forward to customers.

What is the critical water level?

- Authorities do not restrict the river, and shipping does not halt at any particular water level. Owners of vessels must decide if they can function securely.
- At the Kaub chokepoint near Koblenz, to sail fully loaded, vessels require around 1.5 meters of Kaub reference waterline.

How will it impact the German Economy?

- The German economy is already struggling with high inflation, supply chain delays, and skyrocketing gas costs as a result of Russia's invasion of Ukraine in February.
- Shipping bottlenecks are an additional burden on the German economy.
- **GDP:** According to economists, the Rhine shipping slowdown might reduce this year's overall economic growth in Europe's biggest economy by as much as 0.5 percentage points.
- **Higher costs:** Low Rhine water levels could result in production reductions and higher costs for chemical manufacturers like BASF.
- **Energy:** Coal power plants, which are once again popular as a substitute for Russian gas, are also experiencing a shortage of fuel because vessels can't transport enough coal.
- Two of the utility Uniper's plants, which account for 4% of Germany's capacity for coal-generated power, have issued a production reduction alert.

RAT HOLE MINING

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Rat Hole Mining

Prepp Mains Booster: Environmental Pollution and Degradation, Distribution of key natural resources.

Context:

Despite ban, the practice of unscientific rat-hole mining is prevalent in Meghalaya. Recently, an illegal rat hole coal mine in Urak, Meghalaya collapsed, causing deaths of workers.

What is Rat Hole Mining?

- It is a primitive and hazardous method of mining for coal. It involves digging of very small narrow tunnels (hence called rat holes), usually 3-4 feet high, which workers (more often children) enter and extract coal.
- It is practised mostly in Northeastern states, especially in Meghalaya because coal seam found in the hilly region is very thin, less than 2 m in most cases.
- The coal from these mines is taken out manually, and then loaded into a bucket or a wheelbarrow and dumped on a nearby un-mined area. From here, it is carried to larger coal dumps for trade.

Why is it used?

- Since the coal seam is extremely thin, there is no other economically viable method.
- Removal of rocks from the hilly terrain and putting up safety pillars inside the mine to prevent collapse makes it costlier.

- So, this technique of mining has been locally developed and the most commonly used one.

Two types of Rat holes

- Vertical shafts are dug, leading to mines, where horizontal tunnels are dug
- Horizontal holes are dug directly in the hillsides to reach coal seams.

Reasons for its prevalence

- In backward regions of northeast, due to lack of employment opportunities and under-education, people see rat-hole mines as a livelihood opportunity
- Mostly, child labourers are a major portion of employees involved in rat hole mining, because of their thin body shape and ease to access depths.

Impact of Rat Hole Mining

- **Ecology:** Rat-hole mining in Meghalaya has turned water sources of many rivers, especially in Jaintia Hills district, into acidic.
- The degraded water quality was seen with high concentration of sulphates, iron and toxic heavy metals, low dissolved oxygen (DO) and high BOD.
- Areas around mines are used for piling of coal, which has become a major source of air, water and soil pollution.
- Off road movement of coal trucks and other vehicles in the mining area causes further damage to the ecology of the area.
- **Risk to lives:** It is unsafe for workers. The mines usually branch into networks of horizontal channels, which are at constant risk of caving in or flooding.
- There have been several mishaps where workers had been trapped to death due to the sudden collapse of such mines.

NGT Ban

- National Green Tribunal (NGT) had completely banned rat-hole mining in Meghalaya in 2014, stating that it is unscientific and unsafe for workers.
- However, in 2019, Supreme Court held that NGT ban will be applicable, if coal mining is done lawfully with due clearances under Mines and Minerals (Development and Regulation) Act, 1957 and the Mineral Concession Rules, 1960. Despite this, illegal rat hole mining still continues.

EUROPE'S GREAT DROUGHT

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Europe's great drought

Prepp Mains Booster: Important Geophysical Phenomena such as earthquakes, drought, tsunamis, volcanic activity, cyclone etc., Climate Change, Food Security, Disaster and Disaster Management..

Context:

After the record-breaking summer heat, 2022 may be the worst drought year in Europe in 500 years. Legendary rivers have been reduced to shallow streams, hitting power generation. The current drought is said to be the worst in 500 years. Since the year-long drought that killed tens of thousands of people in Europe in 1540, there has allegedly never been a summer this dry in Europe.

What is the situation of drought in Europe?

- This year's dry spell comes after a record-breaking heatwave that caused temperatures to reach record highs in numerous nations.
- Even medium-sized boats cannot be supported on some of Europe's largest rivers, including the Rhine, Po, Loire, and Danube, which are normally formidable waters.
- Ship wreckage and the ominously termed hunger stones, which were carved into rocks by former generations during earlier periods of extreme drought, have emerged from the past depths as water levels have dropped.

What are the recent impacts of the drought?

- **On Agriculture:** Nearly 90% of the geographical area in Switzerland and France, about 83% in Germany, and close to 75% in Italy, was facing agricultural drought.
- **Water Transportation:** It has been the most visible impact. Europe depends heavily on its rivers to move cargo in an economical manner. With water levels down to less than a metre in some stretches, most large ships have been rendered unusable.
- **Power generation:** Lack of adequate water has affected the operation of nuclear power plants, which use large amounts of water as coolant which has resulted in shortage of electricity and an unprecedented rise in energy prices.

What are the reasons for drought in Europe?

- Droughts are not uncommon in Europe but it is the severity of this drought that is unique due to following reasons:
- **Reduced Rainfall:** Rainfall has been scanty in several countries. The UK had its driest July since 1935, and France since 1959. The Netherlands also received having one of the driest years ever, and Germany received only half its normal rain in July
- **Heatwaves:** unusually high temperatures in severe heatwaves experienced by Europe earlier have led to increased evaporation of surface water and soil moisture.
- The severity of the current drought can also be attributed to the fact that it has appeared so soon after the 2018 event. Many areas in Europe were still to recover from that drought.

How will the drought affect the European economy in Future?

- As a result of Russia's invasion of Ukraine in February, the European economy is already experiencing hardships such as high inflation, supply chain disruptions, and skyrocketing gas prices.
- The European economy is additionally burdened by shipping bottlenecks.
- GDP: The water transportation slowdown may lower the continent's largest economy's overall economic growth this year by as much as 0.5 percentage points, according to experts.

Drought:

- Drought is a temporary reduction in water or moisture availability below the normal or expected amount for a specific period.

Types of Droughts :

- **Meteorological Drought:** It is a situation where there is a reduction in rainfall for a specific period below a specific amount.
- **Hydrological Drought:** It is associated with reduction of water. There are two types of hydrological droughts,
- **Surface Water Drought:** It is concerned with drying up of surface water resources such as rivers, streams, lakes, ponds, tanks, reservoirs etc.
- **Agricultural Drought:** It is also called Soil Moisture Drought. When soil moisture and rainfall conditions are not adequate enough to support the crops, thereby resulting in crop failures.
- **Ecological Drought:** When the productivity of a natural ecosystem fails due to shortage of water and as a consequence of ecological distress, damages are induced in the ecosystem.

Causes of Meteorological Droughts:

- Lean monsoon and below average rainfall
- Late onset or early withdrawal of monsoons
- Prolonged breaks in Monsoon

Causes of Hydrological Droughts:

- Large scale deforestation
- Ecologically hazardous mining
- Excessive pumping of ground water

Causes of Agricultural Droughts:

- Excessive use of HYV(High Yielding Varieties) seeds
- Change in cropping pattern e.g. with introduction of green revolution.

FLOOD SITUATION IN KERALA: KERALA STARES AT A REPEAT OF 2018 FLOODS AS RAIN FURY CONTINUES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Floods

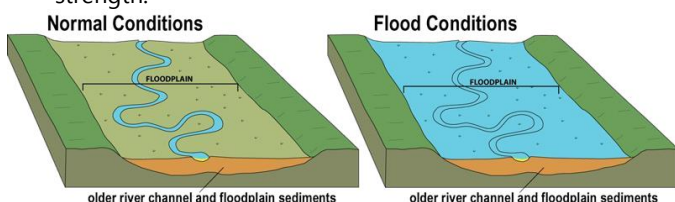
Prepp Mains Booster: Important Geophysical Phenomena such as earthquakes, Tsunami, Flood, Drought etc; GS 3 - Disaster and Disaster Management.

Context:

Recently, Kerala is once again facing a situation resembling a flood as the state's central region is being pounded by heavy monsoon rains. Additionally, a low pressure system that will develop over the Bay of Bengal on Sunday is predicted, which is likely to make the rains worse.

What is Flood?

- It is the overflow of water onto typically dry terrain. Floods can happen during torrential rainfall, as a result of ocean waves hitting the shore, fast snowmelt, or when dams or levees fail.
- Even a few inches of water can cause destructive floods, or the water can reach a house's roof.
- Floods can happen suddenly or gradually over a long period of time, lasting for days, weeks, or even longer. Of all weather-related natural disasters, floods are the most prevalent and extensive.
- The most hazardous floods are flash floods, which combine extreme speed with a flood's destructive strength.



What is the status of Floods events in India ?

- India is extremely susceptible to floods. According to NDMA Over 40 million hectares (mha) of the 329 million hectares (mha) total geographic area are at risk of flooding.
- Floods are a frequent occurrence that result in significant human casualties as well as damage to property, infrastructure, and public services. The fact that flood-related damages are on the rise is cause for alarm.
- Each year some part of India experiences a flood. For example:
 - In 2016 Assam floods: resulted in floods affecting 1.8 million people and flooding the Kaziranga National Park.
 - Following heavy rain in July 2017, Gujarat state of India was affected by the severe flood.
 - Following high rain in late August 2018 and heavy Monsoon rainfall from August 8, 2018, severe flooding affected Kerala.

- rain in late July and early August 2019, series of floods that affected over nine states in India. Kerala, Madhya Pradesh, Karnataka, Maharashtra and Gujarat were the most severely affected.
- Flash flood in Hyderabad in October 2020 that caused 98 fatalities, a part of the 2020 North Indian Ocean cyclone season.
- Widespread flooding in areas of Konkan region of Maharashtra on 22 July 2021 caused by exceptionally heavy rainfall.
- 2022 Assam floods, heavy flooding in Assam State in May 2022.

Why is there a rise in the events of flood in India?

In contrast to other natural disasters, floods have well-documented causes. They tend to happen slowly and frequently in recognised areas and at predictable times throughout the year. Floods have a variety of reasons. Important causes of floods include:

Natural Causes:

- Cloud bursts and heavy precipitation - Cloud bursts and heavy concentrated rainfall restrict rivers' ability to accept further surface run-offs from precipitation, causing water to spill over into nearby areas. In essence, cloud bursts are thunderstorms that produce unusually heavy rains (>50 to 100 cm in a short period of time). All of these have the potential to do significant harm quickly.
- Significant ice and snow melting increases the water in the river basin which may cause floods.
- Large-scale catchment area changes, sediment deposition/river bed silting, and river system changes the water carrying capacity of river basin, leaving more water in small basin. This resulting in floods
- The failure of dams
- When a tropical cyclone lands, the waters might overflow, and coastal communities can experience tsunamis and landslides.

Anthropogenic/man-made causes:

In contrast to other natural disasters, humans are crucial to the development and spread of floods.

- Deforestation:** It causes landslides and soil erosion. It is to blame for the disappearance of plants and soils, which stabilise the soil and serve as a sponge to soak up the majority of rainwater. Additionally, it causes river beds to silt up, all resulting in the flood conditions.
- Unscientific land use and poor farming techniques:** Some farmers have left their fields naked, causing dirt and water to flood into the waterways. Floods can even be brought on by picking the wrong way to plough.
- Increased unplanned urbanisation:** By introducing hard, impermeable surfaces, it has decreased the ability of the soil to absorb rainfall. As a result, less water seeps into the ground, increasing the amount and pace of surface run-off.
- This is caused by the indiscriminate encroachment of wetlands and streams, the insufficient capacity of drains, and the neglect of the drainage system.

- Ineffective waste management also makes the issue worse by clogging lakes, canals, and sewers.
- **Ignoring Pre-Disaster Planning:** According to the history of flood management, the majority of the effort has gone towards post-flood recovery and relief.
- There aren't enough gauging stations at hydroelectric plants and reservoirs to measure flood levels, which is a key factor in flood forecasting and prediction.
- **Gadgil Committee Recommendations Not Obeyed:** The Madhav Gadgil committee suggested in 2011 designating an area of about 1,30,000 square kilometres as an environmentally sensitive zone (spanning Gujarat, Karnataka, Kerala, Maharashtra and Tamil Nadu).
- However, none of the six states—Kerala in particular—agreed with its suggestions, which included a ban on mining, restrictions on development, and embargoes on hydroelectricity projects.
- The regular floods and landslides that have resulted from this neglect are now readily apparent.

Why is Kerala experiencing heavy rain floods in 2022?

At least three weather conditions that cause heavy rain are now present in Kerala.

- First, Kerala is receiving moisture from strong westerly winds coming in from the Arabian Sea.
- Second, there is an east-west shear zone that is present over the southern peninsula at a latitude of 10 degrees.
- This vertical zone, which can exist in the lower, middle, or upper atmospheric altitudes, permits the interaction of vigorous winds moving at high speeds.
- Additionally, this zone permits the monsoon winds to continue their activity, resulting in heavy rainfall across the region they are affecting.
- Third, a north-south trough that is closer to south Kerala and runs between the Chhattisgarh and Comorin regions is generating widespread rainfall.

Way Forward

- To ensure the prompt opening of dam spillways and develop holding capacity in the reservoirs to absorb surplus rainfall, there is unquestionably a rationale for increased coordination between forecasting agencies and reservoir management authorities.
- To ensure disaster preparedness, a comprehensive flood control plan is also required.
- Affordable housing is the first aspect of urban growth that must be addressed in order to prepare for future climate change.
- The best illustration of how to survive calamities is Japan, which experiences earthquakes and even tsunamis more frequently than other countries.
- In policy and law, it should be made very clear how to manage watersheds and create an emergency drainage plan.

- When creating a drainage plan, it is important to take into account natural limits like watersheds rather than political boundaries like election wards.

WHAT ARE CLOUDBURST INCIDENTS AND ARE THEY RISING ACROSS INDIA?

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Cloud bursts

Prepp Mains Booster: Important Geophysical phenomena such as earthquakes, tsunamis, Volcanic activity, cyclones, etc; Disaster and Disaster Management

Context:

- In different areas of Himachal Pradesh and Uttarakhand cloudbursts and flash floods have destroyed property and killed more than 20 people.
- These two states have had isolated instances of extreme rains that led to landslides and flash floods that affected train and road traffic and caused home and wall collapses.



What is cloud burst?

- A cloudburst is a brief period of **severe localized rain**.
- Widespread destruction can result from brief bursts of **extremely high rainfall over a short geographic area**, especially in hilly areas where this occurrence is most frequent.
- However, not all cases of extremely heavy rainfall involve cloudbursts.
- A cloudburst is defined very precisely **as an hour of rainfall totaling at least 10 cm over an area measuring 10 km by 10 km**.
- According to this definition, a cloudburst would also be defined as 5 cm of rain falling over the same area in a half-hour.
- A location can receive 10% of this annual rainfall in one hour during a cloudburst event.

Mechanism:

- Cloudbursts happen when saturated clouds are unable to produce rain because of the upward movement of the very warm current of air.
- Raindrops get larger and are propelled upward by the air current rather than falling.
- They eventually became too heavy to hold and fall, causing more rain than usual. There isn't a real "burst," but rather an intensified version of a torrential downpour.

How often do cloudbursts occur?

- Cloudbursts are a typical occurrence, especially during the monsoon season.
- The majority of these occur in the **Himalayan states because of the regional structure, wind patterns, and temperature differential between the lower and upper atmosphere.**
- These incidents' effects do not just affect a narrow area.
- Due to the topography, periods of intense rainfall frequently result in landslides and flash floods, which inflict significant damage downstream.
- This is the reason why, regardless of whether the amount of rainfall satisfies the qualifying criterion, every unexpected downpour that causes the destruction of life and property in hilly places is referred to as a "cloudburst."

Are cloudbursts predictable?

- The precise amount of rain that will fall at any given location **cannot be predicted** by weather scientists.
- The forecasts also cover a sizable geographic area, typically a state, a meteorological division, or at the very least a district.
- The **forecasts** become increasingly **hazy** as they zoom in over **smaller locations.**
- Theoretically, it is conceivable to predict rainfall over very small areas, but this would require a very extensive network of meteorological equipment and sophisticated computational power that, given current technology, seems to be **impractical.**
- As a result, it is impossible to predict specific cloudburst incidents. A cloudburst's potential is never included in a forecast.
- However, there are warnings for periods of heavy to extremely heavy rainfall, and these are typically predicted four to five days in advance.
- The likelihood of exceptionally heavy rain, which could lead to cloudburst-type events, is predicted six to twelve hours in advance.

Are cloudburst incidents increasing?

- No long-term trend indicates that the frequency of cloudbursts, as defined by the IMD, is increasing. However, it is well known that there are more instances of excessive rainfall and other weather-related occurrences worldwide, not just in India.

- While India's annual rainfall hasn't altered significantly, a larger percentage of it is now falling over a shorter period of time. This indicates that even during the rainy season, there are extended periods of **dry weather alternating** with intensely wet spells.
- This type of trend, which is linked to **climate change**, does indicate that there may be an increase in cloudburst incidents.

Role of women and Women's Organization, Population and Associated Issues, Poverty and Developmental Issues, Urbanization, their problems and their remedies

REPLACEMENT LEVEL FERTILITY ACHIEVED IN INDIA

Priority: Medium



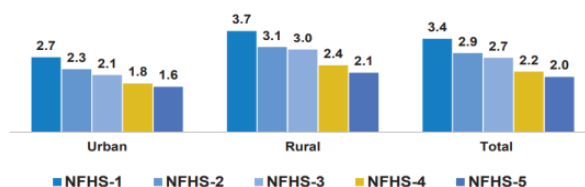
Primary Source: The Hindu

Prepp Prelims Booster: Human geography

Prepp Mains Booster: Population and associated issues

Context:

- At the National Family Planning Summit 2022 the Union Minister of State for Health and Family said that India has reached replacement level fertility, with as many as 31 States/Union Territories having a Total Fertility Rate of 2.1 or less.
- India greatly increased the use of modern contraceptives between the years of 2012 and 2020 by adding more than 1.5 crore new users.



What is replacement level fertility?

The fertility rate at which **a population precisely replaces itself from one generation to the next** is known as replacement level fertility. One can assume that 2.1 children on average are needed for replacement level fertility.

Highlights of National Family Planning Summit 2022

- The Union Minister emphasised that the National Family Planning Program has received further impetus as a result of Mission Parivar Vikas (MPV) 2016.
- Innovative tactics used in the programme, such as the distribution of **Nayi Pehel kits, Saas Bahu Sammelan, and Saarthi vans**, aid in engaging the neighbourhood and launching conversations about **family planning**, healthy birth spacing, and the value of small families.
- The Minister also launched the **Medical Eligibility Criteria (MEC) Wheel Application**, the E-Module of Family Planning Logistics Management System (FPLMIS), and the Digital Archive on Family Planning under the heading of Digital Intervention during the event.

- Minister also unveiled the **India Family Planning 2030 vision** document.

What are the steps being taken by government steps being taken by the government for population control?

- Mission Parivar Vikas**: In order to significantly **increase access to contraception and family planning** services in 146 **high fertility districts with a Total Fertility Rate (TFR) of 3 and above** in seven high priority states, the government has launched Mission Parivar Vikas. These districts are from the states of Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand and Assam that **itself constitutes 44% of the country's population**.
- New Contraceptive Choices** like Injectable contraceptive (Antara programme) and Centchroman (Chhaya)
- Post-partum IUCD (PPIUCD)**, a new technique for inserting IUCDs right away after delivery, has been introduced.
- Redesigned contraceptive Packaging** - In order to boost demand for condoms, oral contraceptives, and electronic contraceptives.
- Compensation plan for sterilisation acceptors**: The **MoHFW compensates** both the beneficiary and the service provider (and team) **for lost wages** incurred during the course of performing sterilisations.
- In 146 Mission Parivar Vikas districts, the **Clinical Outreach Teams (COT) Scheme** has been introduced to provide family planning services through mobile teams from recognised organisations in remote, underserved, and challenging-to-reach areas.
- Plan for ASHAs** to provide **contraceptives** to beneficiaries' at **doorsteps**.
- Plan for ASHAs to **Ensure Birth Spacing**
- Plan for including **pregnancy testing kits in ASHAs' medicament kits** for community use.
- The Family Planning Logistic Management and Information System** (FP-LMIS) is a specialised programme that makes it **possible to forecast, purchase, and distribute family planning supplies** efficiently to all levels of healthcare facilities.
- Clients are covered by the **National Family Planning Indemnity Scheme (NFPIS)** in the **event of death, complications, or failure** following sterilisation.
- Establishing Quality Assurance Committees** in all states and districts to ensure the standard of care for family planning services.
- Appointment of specialised RMNCH+A counsellors** at facilities with a high caseload.
- Enhanced demand creation processes** via a multi-pronged media strategy.

Way Forward

- Even if India's fertility has reached replacement level, our intervention efforts must continue to **focus on** the large population in the **reproductive age range**.

- It is time for India to shift its attention from the supply side, which includes families, communities, and society, to **the demand side, which includes providers and delivery systems**. This emphasis allows for significant change rather than gradual progress.

SURVEY DATA ON POVERTY AND BROAD POLICY POINTERS

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Poverty

Prepp Mains Booster: Poverty and developmental issues, urbanization, their problems and their remedies .

Context:

Recently based on the multidimensional poverty measurement, it was found that the Poverty Ratio in Tamil Nadu reduced to 1.57% in 2020-21 from 4.89% in 2015-16. The scholars have talked about the quality of the survey data used to assess poverty in India. For a number of reasons, scholars have questioned the reliability of NFHS data on poverty statistics.

What is the Multidimensional Poverty Index of NITI Aayog of India (MPI)?

- The Multidimensional Poverty Index (MPI) was estimated by NITI Aayog using survey data from NFHS 4 and the baseline report was released in 2021. The Head Count Ratio and Intensity of Poverty combine to form the MPI.
- The MPI's justification is that poverty results from simultaneous deprivations in a number of functions, including standard of living, health, and educational attainment.
- The weighted average of deprivations was determined using 12 variables from these three sectors that were specified by NITI Aayog. The poverty ratio, also known as the head count ratio, is the percentage of the population with a deprivation score higher than 0.33 compared to the entire population.
- Estimation of the Intensity of Poverty is multidimensional poor's weighted-average deprivation score. For instance, throughout this time, Tamil Nadu's poverty intensity decreased from 39.97% to 38.78%.

What are the issues with the NITI Aayog's poverty index?

- The population as a whole was poorer than the population classified as multidimensionally poor in the majority of the measures taken separately.
- The NFHS survey data's quality determines how effective the MPI is as a tool for a data-driven public policy.

What elements affect the NFHS data's quality?

- Since its inception in the 1950s, the sample surveys of the National Sample Survey Organisation (NSSO) have been the subject of discussion among statisticians and economists regarding both sampling and non-sample mistakes.

- Two time periods were used to obtain the NFHS data. One was during the pandemic, and the other was following the lockdown.
- The statistics of the complete database are interpreted by the difference in time period. For instance, in the post-lockdown period, there was less deprivation in terms of nutrition and maternal health, and there was more schooling and school attendance.
- Other problems with NFHS data include arbitrary reporting of death ages, disparities in data quality between educated and illiterate respondents, time taken to conduct surveys of various household types, and market-based approaches to data collection.
- All of them have significant effects on health statistics like fertility and mortality rates.

What actions should be taken in order to combat poverty using the NFHS Data?

For improving the NFHS:

- The sample design and response quality should be improved in India in order to improve the NFHS.
- Analyzing the information and drawing conclusions about a problem from several databases will help to enhance data collection methods.
- The government must continue to use survey data to inform policy decisions as well as to contribute to the improvement of data quality.

For reducing poverty:

- Survey data only provides general policy pointers, whereas programmatic interventions should be crafted with ground-level realities;
- People may be severely underprivileged in a few areas, but they may not necessarily be poor across the board. Therefore, combating poverty should not only be multifaceted but also global.

WOMEN SCIENTISTS IN INDIA

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: Women Scientists in India

Prepp Mains Booster: Welfare Schemes for Vulnerable Sections - women, Gender Equality. Issues Relating to Development and Management of Social Sector/Services Education, Human Resources.

Context:

- The recent appointment of Dr. N. Kalaiselvi as the first female director general of the Council for Scientific and Industrial Research (CSIR) highlighted an important trend of women's involvement in science research.
- Due to different measures taken by succeeding governments, the Department of Science and Technology (DST) data indicates that 28% of participants in extramural Research & Development projects in 2018-19 were women, up from 13% in 2000-01.

WOMEN IN SCIENCE

SCIENTISTS

Post-doc and above,
including researchers
& faculty

2015
13.9%

2018
18.7%

2020
20%*

*2020 data approximate, still being analysed

ENROLMENT

Year	Undergrad	PG	MPhil	PhD
2011-12	13.2%	9.62%	17.58%	22.9%
2012-13	13.2%	14.26%	28.39%	28.3%
2013-14	14.1%	13.84%	27.22%	27.8%
2014-15	15.4%	14.09%	27.9%	27.7%
2015-16	16.2%	14.49%	27.6%	27.5%

What are the Key Findings?

Findings of the Department of Science and Technology:

- From 232 in 2000-01 to 941 in 2016-17, there were more than four times as many female main investigators in R&D.
- In 2018, there were 18.7% more women researchers than there were in 2015.
- Although there is an upward tendency in the overall data, there are less women researchers in engineering and technology than in the natural sciences, medicine, and agriculture.
- However, the proportion of female scholars in the humanities and social sciences is substantially greater, at 36.4%.
- There are fewer women researchers than the average global number at the post-doctoral level.

All India Survey on Higher Education (AISHE) 2019:

- According to AISHE, women make up 53% of undergraduate and 55% of graduate students studying science.
- But at the doctoral level, women outperformed men with a graduation rate of 44% to 56%.

What is the overall status of women's involvement in the scientific field?

National Statistic:

- Over 60,000 scientists will be working in India by 2022, up from 30,000 in 2014.
- The percentage of women working in biotechnology and medicine is 40% and 35%, respectively.

Department of Science and Technology (DST):

- There are 97 scientists in the DST, and 35 of them are women.
- The DST has made a significant advancement in that 11 of its 18 divisions are currently led by women, a 61% representation rate that is perhaps the highest of any federal agency.

Other Institutions:

- The Defence Bio-Engineering and Electro-Medical Lab (DEBEL) in Bangalore has 33%, NIPER Hyderabad has 21%, and the Coalition for Disaster Resilient Infrastructure (CDRI) has 18%.

What steps has the government taken to encourage women to pursue science?

PM KIRAN:

- To give women scientists and technicians a variety of professional prospects, the Department of Science and Technology (DST) is implementing the "Knowledge Involvement in Research Advancement through Nurturing (KIRAN)" Scheme.
- The primary goal of these initiatives is to increase the representation of women in the field of research and development in order to achieve gender parity in the science and technology sector.
- Additionally, it offers women between the ages of 27 and 57 who want to continue their higher studies in science and technology after taking a career break fellowship support ranging from Rs 25000 to Rs 55000.

Gender Advancement for Institutions That Are Transforming (GATI):

- The Department of Science & Technology introduced the GATI (Gender Advancement for Transforming Institutions) (DST).
- It will create a thorough Charter and a methodology for evaluating gender equality in STEM (Science, technology, engineering, and mathematics).
- 30 academic and research institutions have been chosen by DST for the first phase of GATI, with an emphasis on the representation of women in leadership positions, faculty, and the number of female students and researchers.

Vigyan Jyoti Yojna:

- Launched by the Department of Science & Technology is the Vigyan Jyoti Scheme (DST).
- It aims to equalize the playing field for deserving high school girls who want to major in Science, Technology, Engineering, and Mathematics (STEM) in the higher Education.

Prime Minister's Research Fellows (PMRF) Scheme:

- Prime Minister's Research Fellows (PMRF) Scheme, which provides direct admission to such students in the Ph.D. programmes at IITs, IISERs, and IISc, was launched by the Indian government in 2018 in an effort to draw deserving students including girls into research.
- The program's goal is to draw the nation's top talent to doctoral (Ph.D.) programmes where they can conduct cutting-edge science and technology research with a focus on national issues.

Indo-US Fellowship for Women in STEMM (WISTEMM) program:

- Women scientists can work in research labs in the US through the Indo-US Fellowship for Women in STEMM (WISTEMM) programme.

Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE) Programme:

- It aims to enhancing R&D infrastructure and building cutting-edge research facilities to foster excellence in science and technology at women's universities.

CAN WOMEN BE TRUE REPRESENTATIVES OF THE PEOPLE?

Priority: Low



Primary Source: The Hindu

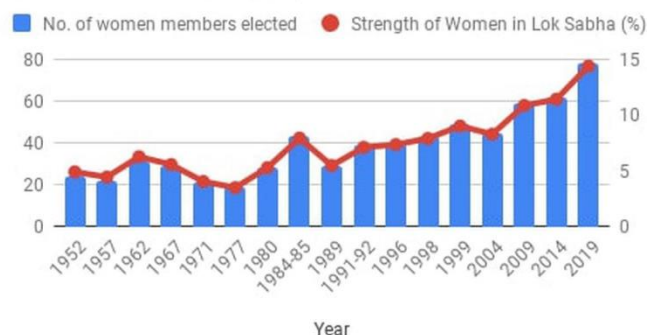
Prepp Prelims Booster: Women in Parliament

Prepp Mains Booster: Parliament and State legislatures—structure, functioning, the conduct of business, powers & privileges, and issues arising out of these; Role of women and women's organization

Context:

- Sadia Hussain's article, 'Performance of Women in Parliament: A Quantitative Study of Questions by Women Members in Lok Sabha (1999-2019)' draws attention to how well women do in the Lok Sabha through a quantitative examination of the inquiries made by female floor leaders.
- It refutes assertions that female lawmakers merely serve as "gungi gudiya"—silent dolls—during Question Hour in Parliament and that their presence in politics is merely symbolic.

Women in Lok Sabha



Question Hour: Question Hour is the first hour of every sitting of the Lok Sabha which is available for asking and answering questions. It usually starts at 11 AM when the House meets for the session. On the other hand, the question hour in Rajya Sabha usually starts at 12 PM when the house meets for the session.

Women in politics:

- The article places women's role in Indian electoral politics in context.
- According to Nivedita Menon's research on feminist theory and politics in India, there hasn't been a single women's movement there in the past 20 years that has challenged gender and patriarchal conventions.

- To gain power, women have had to **employ alternative strategies**.
- Women's political participation has benefited from their income and education.
- According to studies, more women have begun to form economic groupings, and their increased **financial independence** has encouraged them to become more **politically engaged**.
- The **narrowing of the gender gap in voter participation** is encouraging gender equality in politics.

Access to power versus participation

- For the first time since independence, when only 22 women were represented in the 543-member Lok Sabha, the 2019 general election marked an important turning point for women in politics as 78 women were elected to the lower house of Parliament.
- However, the author argues that this figure still does not accurately reflect the proportion of women in the nation.
- Since Question Hour is a time when lawmakers can act without interference from their parties, how women behave during that time is important.
- The characteristics of a leader are substantive representation or acting in the best interests of the people represented.
- Do women who hold elected office simply speak for themselves or also for the people who supported them? Do they avoid talking about topics like national security, finance, agriculture, and railways in favor of "softer subjects" like the advancement of women and children, health, and sanitation?

What does the study say?

- The study demonstrates the **transition from descriptive representation to substantive representation**.
- **Defies the stereotype:** It defies the stereotype that female lawmakers only discuss sensitive topics or act as passive observers in the House of Commons.
- Although men participated in more debates and asked more questions than women, the number of questions asked by women has significantly increased. Contrary to popular opinion, women representatives raised more questions about agriculture, finance, human resources, home affairs, health, and family welfare than they did about women's issues.
- Male legislators were more likely than female peers to ask inquiries about issues affecting women. The representatives appeared to be unaffected by gender stereotypes, thus these are extremely positive indicators.
- **The disparity in quantity and nature of the questions:** The ability of representatives to ask challenging questions was significantly impacted by the intersectionality of identities.
- There were fewer queries from members of marginal States, regardless of gender.

- The majority of the queries were posed by BJP women, whether they were in positions of authority or opposition.
- The quantity and nature of the questions posed in the lower house **varied** according to the members' party affiliations, education levels, geographical backgrounds, ethnicities, castes, and ages.
- In this way, the author clarifies the peril of viewing women as a homogeneous group as well as how identities interact and affect how women are portrayed politically.

Way Forward

- The study examines the conflict between women's responsibility to more fully reflect women's issues and their concern for adequately addressing matters affecting the general public.
- Women are **shattering preconceptions** by simply acting like their male counterparts, despite the expectation that they contribute a feminine aspect to the public political sphere.
- Using the performance framework to analyze these discussions of gender and politics, one comes to the conclusion that the issue of women's **underrepresentation is merely superficial**.
- The issue of structural inequality, where women are marginalized on various levels, is what lies beneath.
- The author illustrates how proportional representation will result in better representation of women's concerns using examples from Latin American Parliaments. Additionally, representation develops into a social phenomenon that cannot be separated.
- The process is influenced by social, cultural, economic, religious, and political forces. The rise in political involvement is encouraging gender equality and inclusion in politics.
- However, there is still a long way to go because of the socioeconomic and cultural factors that continue to socialize women to dislike politics and prevent them from pursuing it as a career.

ACCULTURATION

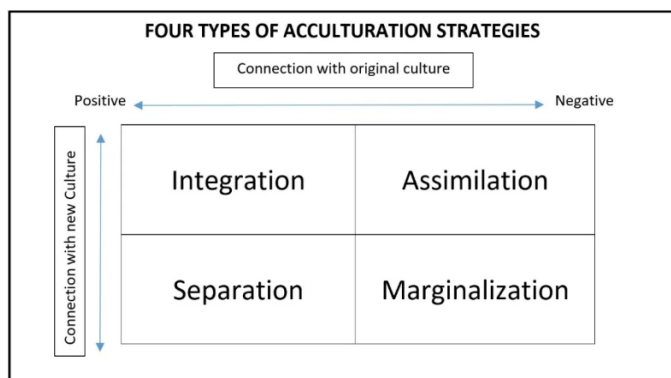
Priority: Low

Primary Source: The Hindu

Prepp Prelims Booster: Acculturation

Context:

Based on the article "Acculturation" published in The Hindu on 24th August 2022.



Background

- American geologist John Wesley Powell first used the term "acculturation" in a study for the U.S. Bureau of Ethnology in 1880.
- He described it as the psychological alterations brought about in people as a result of cross-cultural imitation and interaction with many cultures.

What is acculturation?

- According to sociologists, acculturation is a two-way process in which the minority culture adapts elements of the majority culture to fit in and the majority culture is likewise influenced by the minority culture.
- It is currently understood as the process through which an individual or group from one culture interacts with another, absorbing its beliefs and customs while maintaining its own unique identity.
- The notion is most frequently used in the context of a minority group's cultural exchange with a dominating majority group after migrating to a new society.
- As a result of the research conducted in 1918 by W.I. Thomas and Florian Znaniecki on Polish immigrants in Chicago, assimilation — the process through which a group adopts a new culture and essentially replaces its previous culture, leaving only traces behind — has been better understood.
- The study of Black Americans in white American society, on the other hand, helped researchers better understand the idea of acculturation.
- Dietary habits, fashion, art, architecture, workplace culture, and literature** are just a few examples of the many facets of life that are impacted by acculturation.
- The process can take place between groups that might not be a majority or minority in society, as well as at the individual and group levels.

What are different types of Acculturation strategies?

- Although most people use the terms interchangeably, assimilation and acculturation are two different things. One of the many potential results of acculturation is assimilation.
- Acculturation can lead to rejection, integration, marginalization, or transmutation** depending on the techniques used by people or groups involved in a cultural

exchange. Furthermore, because cultures change over time, the results of the procedure could change with time.

- Assimilation:** Assimilation describes the process by which people or groups finally blend into the culture they first encountered. It happens when one's culture is given little weight and "fitting in," which is seen as essential for survival in a new cultural environment, is given significant priority.
- Separation:** It is the process through which an individual or group interacts with a different cultural group but chooses not to adopt certain characteristics of that group's culture because they want to preserve their own distinctive identities without becoming "contaminated" by that culture's values and practises.
- In racially or culturally divided civilizations, it is common to reject new cultures while upholding one's own traditions and practises.
- Integration:** A person or group integrates when they keep their original culture while adjusting to a new one. In this case, cultural acceptance is important for the proper operation of society. In a multicultural society with a sizable percentage of minority groups, this tactic is adopted. Those who employ this tactic can effortlessly transition between the values and norms of the various cultures they have acquired when interacting with groups from both cultures.
- Transmutation:** The process of transmutation emphasises both preserving one's own culture and incorporating elements of a new culture.
- But rather than integrating and alternating between two distinct cultures' codes and conducts, the cultures are combined to form a new one. As a result, when two cultures are uniquely combined, a new culture is born that is embraced by both individuals and communities.
- Marginalisation:** When people or groups rarely contact with a new cultural group, marginalisation happens. This tactic isolates the individual or group, forcing them to the margins of society where they are ignored by the majority.
- It becomes very impossible to communicate and integrate with a different cultural group in a culture where cultural exclusion is practised because of the barriers formed between the two.

Acculturation in the Indian context

- Practically every element of Indian life has been impacted by Persian culture.
- Cuisines:** Popular foods like biryanis and faloodas, as well as spices like saffron and cumin seeds, have Persian roots and have influenced many aspects of our culture.
- Languages:** One of the most remarkable examples of the blending and transformation of civilizations is the Urdu language, which is a combination of Arabic, Persian, Turkish, and Hindi.
- Literature:** The first Hindi short narrative, Rani Ketki ki Kahani, and Jaysi's Padmavat were both written in Urdu script.

- **Architectural Influences:** Hindu architectural influences can be seen in the designs of Christian churches in Kerala, such as the Pazhaya Suriyani Pally (ancient Syrian church) in Chengannur and the Cheriapally (little church) in Kottayam.
- The integration of Hindu and Christian traditions and cultures in Indian society can be seen in the sculptures of Christian deities inside lotuses that resemble those of Hindu deities, the carvings of cows, elephants, and monkeys on church walls, and the use of nilavilakku, or traditional temple lamps, in churches.

Conclusion

- Since migration and encounters with other cultures have always been a component of the development of civilization, acculturation is an inevitable social process.
- Due to the multi-cultural makeup of today's society, these encounters have ingrained themselves into our daily lives.
- Through acculturation, we can discover and comprehend new aspects of diverse cultures while still appreciating their distinctions.
- Different cultures can be marginalised and separated as a result of resentment toward other cultures and the conviction that one's ancestry is superior, which ultimately disrupts a society's ability to operate.
- A peaceful society must have a harmonious exchange of cultures among distinct populations.

Jawaharlal Nehru writes in his book "The Discovery of India, Indian unity is not something imposed from the outside but rather, "It was something deeper and within its fold, the widest tolerance of belief and custom was practised and every variety acknowledged and even encouraged." **Nehru** was the one who coined the expression "**unity in diversity**" to characterize the nation.

GENERAL STUDIES 2

Indian Constitution, Functions and Responsibilities of the Union and the States, Separation of Powers between various organs Dispute Redressal Mechanisms and Institutions, Parliament and State Legislatures, Appointment to various Constitutional Posts, Powers, functions and Responsibilities of various Constitutional Bodies

HOW IS THE CHIEF JUSTICE OF INDIA APPOINTED?

Priority: High



Primary Source: Indian Express

Prepp Prelims Booster: CJI

Prepp Mains Booster: Judiciary

Context:

- Recently, Justice Uday Umesh Lalit was appointed as the 49th Chief Justice of India. At the Rashtrapati Bhavan, Justice Uday Umesh Lalit took the oath of office in front of President Droupadi Murmu to become the 49th Chief Justice of India.
- He will be the second Chief Justice of India to be chosen from the bar without first holding the position of a high court judge.



What is the eligibility criteria for Chief Justice of India?

- In addition to being an Indian citizen, the candidate must meet the following requirements:
 - have served as a judge of a High Court for at least five years, or of two or more such Courts in succession;
 - have served as an advocate of a High Court for at least ten years; or
 - be, in the President's opinion, a distinguished jurist.

Who appoints the CJI?

- According to Clause 2 of **Article 124** of the Indian Constitution, **the President** appoints the **Chief Justice of India and the other Supreme Court judges**.
- According to Article 124, the President may "deem necessary" to appoint a judge of the Supreme Court "**after consultation**" with other judges.
- The President should **contact the CJI, Governor, and Chief Justice of the High Court in question, according to Article 217**, which addresses the appointment of High Court judges.
- Additionally, CJIs serve until the age of 65, whereas High Court justices leave their positions at the age of 62.

What is the procedure followed for recommending and appointing judges?

- The appointment of judges is done using the more than 20-year-old **collegium system**, which consists of the **five senior-most Supreme Court and High Court judges**.
- From the candidates initially nominated by the collegium, the Intelligence Bureau (IB) occasionally conducts a background investigation.
- Although the government may also object, **the collegium's will typically takes precedence**.

- The term "**collegium**" is **not mentioned in the constitution**, which only speaks of consultation by the President.
- This manner of appointment has frequently been contested in court due to the ambiguity of the word "consult," which has resulted in decisions like the **First Judges Case**, when it was determined that the President can reject the CJI's proposal if there are "cogent reasons."
- This indicated that the President or administration would have more influence over appointment decisions.
- This changed as a result of subsequent lawsuits and rulings.
- As a result of the "**Third Justices Case**," the Supreme Court established rules for nominations and transfers, giving rise to the current collegium structure in which decisions must be made by a majority of the five seniormost judges.
- Because of this, it has become widely accepted in recent years that the judiciary's independence from the administrative branch should be protected when making nominations.
- Typically, the court's senior judge (in terms of years of service) is suggested as the chief justice's successor. Former Prime Minister Indira Gandhi famously broke with this tradition when she chose Justice AN Ray above his seniority as CJI in 1973.
- **Seniority** is to be the standard according to the government's **Memorandum of Procedure for Appointing Supreme Court Judges**.
- It states that in order to appoint the following **Chief Justice of India, the Union Minister of Law, Justice, and Corporate Affairs requests the advice of the outgoing CJI**.
- After the collegium's recommendations are finalized and received from the CJI, the Law Minister will put up the recommendation to the Prime Minister who will advise the President on the matter of appointment.

Chief Justice of India

- The CJI and the other Supreme Court judges are appointed by the President of India.
- In terms of the CJI, the outgoing CJI recommends his successor.
- In practice, it has been strictly by seniority since the 1970s supersession issue.

Judges of the Supreme Court

- The proposal was initiated by the CJI for the other Supreme Court judges.
- The CJI consults with the rest of the Collegium members, as well as the court's senior-most judge from the High Court to which the recommended person belongs.
- Consultees must record their opinions in writing, which should be kept in the file.

- The recommendation is sent by the Collegium to the Law Minister, who then forwards it to the Prime Minister, who advises the President.

For High Court Chief Justices

- The High Court Chief Justice is appointed in accordance with the policy of having Chief Justices from outside the respective states.
- The decision on the elevation is made by the Collegium.
- A Collegium of the CJI and two senior-most judges recommend High Court judges.
- The proposal, on the other hand, is led by the outgoing Chief Justice of the High Court concerned, in consultation with two senior-most colleagues.
- The recommendation is forwarded to the Chief Minister, who urges the Governor to the proposal to the Union Law Minister.

Why is the collegium system criticized?

Lack of transparency: The lack of openness in the collegium system is its fundamental drawback.

Nepotism: Nepotism may be prevalent, as indicated by the 230rd report of the Law Commission of India, which was submitted in 2009.

- The report stated: "Sometimes it appears that this high office (HC Judge) is patronised."
- A person has a better chance of advancement if a close relative or well-wisher is or has previously served as a judge in the higher courts, a senior advocate, or a political higher-up.
- **Noncompetent:** Such a person does not necessarily need to be competent because occasionally even less competent individuals are admitted.

What is a Memorandum of Procedure?

- The Memorandum of Procedure (MoP) is the playbook agreed upon by the government and the judiciary on the appointment of judges and it is a crucial document as the Collegium system of appointing judges is a judicial innovation that is not mandated through legislation or text of the Constitution.
- Three Supreme Court decisions—the First Judges Case (1981), Second Judges Case (1993), and Third Judges Case (1998)—have evolved into the MoP, which now serves as the benchmark for appointing judges.
- But after the Supreme Court overturned the constitutional amendment that established the National Judicial Appointments Commission (NJAC), which intended to alter the appointment process, the MoP was renegotiated in 2016.

What is the procedure for the removal of CJI?

- According to the constitution, "A Judge of the Supreme Court shall not be removed from his office except by an order of the President passed after an address by each

House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting."

- The address must be presented to the President during the same session and must be based on either proven misbehavior or incapacity.

Collegium system

The Collegium system refers to the system of appointing and removing judges that have emerged as a result of Supreme Court decisions rather than an Act of Parliament or a provision of the Constitution.

Memorandum of Procedure (MoP)

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National Judicial Appointments Commission Act, 2014:

- The Narendra Modi administration passed the NJAC Act, 2014 to set rules for how the NJAC recommends candidates for appointment as Chief Justice of India, other Supreme Court judges, Chief Justices, and judges of High Courts, as well as for their transfers.
- The Supreme Court, however, declared in October 2015 that the Constitutional amendment creating the NJAC was unconstitutional.

NO DISTRICT-LEVEL MINORITY GROUPS, SAYS SC

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Minorities

Prepp Mains Booster: Indian Constitution- Significant Provisions, Judiciary

Context:

Recently, the Supreme Court orally observed that it is "contrary to law" to identify linguistic and religious minority communities on a district-by-district basis. A Supreme Court bench stated that the minority status of linguistic and religious

minorities must be taken into account from a state-wide perspective.



What was the petition in the Supreme Court about?

- The court was hearing a petition claiming that Hindus do not get minority status in States where they are "socially, economically and politically non-dominant and numerically inferior".
- The petition had also sought a declaration from the court to identify minorities district-wise.
- The Petition also claimed that followers of Judaism, Bahaism, and Hinduism, who were the real minorities in Ladakh, Mizoram, Lakshadweep, Kashmir, Nagaland, Meghalaya, Arunachal Pradesh, Punjab, and Manipur, could not establish and administer educational institutions of their choice, thus jeopardizing their basic rights guaranteed under Articles 29 and 30.

What was the Supreme Court's Observation regarding the Petition?

- The SC observed that petition to recognize minorities at the district level is contrary to law. There is an 11-judge Bench judgment of **T.M.A Pai versus State of Karnataka case of 2002**, which holds that identification of the minorities should be done at the State level.
- The Supreme Court cannot pass "general" directions to States to bestow certain communities with minority status.
- SC can only look into concrete cases of denial of rights to minorities, the court cannot pass general orders.

What are the TMA Pai Foundation Case 2002 observations regarding the petition?

- In the aforementioned case, an 11-judge bench decided on the issue of the scope of minorities' constitutional rights to form and run educational institutions of their choosing under Article 30(1)[1] read with Article 29(2)[2].
- The verdict addressed minority (aided and unaided) institutions' rights and legal restraints.

Observations:

- A religious or linguistic minority under State law may only be identified by the State.

- Even with a Central statute, the State in question will be the unit rather than the entire country for identifying the minority.
- In Article 30(1), the phrase "of their choice" refers to professional education.
- All educational institutions, whether majority or minority, must abide by any regulation of national interest.
- The right under Article 30(1) is not unqualified; as a result, it is subject to local ordinances as well as other Constitutional clauses.
- The question of whether followers of a sect of religion can claim minority status even though that religion is in majority in that particular State was left unanswered.
- The question as to what are the indices to determine an institution as a minority institution, whether the fact that it was established by or is administered by persons belonging to a religious or linguistic minority is determined by its character, was also left unanswered.

Who is a minority in India and who can decide the status of Minorities?

- Currently, the Union Government has the authority to treat any community as a minority community under the Minority Educational Institutions or NCMEI Act 2004.
- The Union Government has designated six communities in India as national minority communities in compliance with the Act: Muslims, Christians, Sikhs, Buddhists, Parsis, and Jains.

Who can decide the status of Minorities?

- As per the Constitution both, Centre and State, have concurrent power to decide on the minorities in India.
 - The Center had given minority status to Jains in 2014.
 - States can also designate a religious or linguistic group as a minority community within its borders, as Maharashtra did in 2016 with Jews.

Are minorities defined in India?

- Although the term "minorities" appears in various articles of the Indian Constitution, the term "minority" is not defined. The Constitution, on the other hand, recognizes religious and linguistic minorities in India.

What are the various provisions for minorities in the Constitution in India?

Constitutional Provisions

- **Fundamental rights: Cultural and Educational Rights (Articles 29-30)**
- **Article 29:** It provides that any section of the citizens (Minority or Majority) residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.
 - It ensures protection to both religious and linguistic minorities.
- **Article 30:** All minorities have the right to establish and administer their own educational institutions.

- Article 30's protection is limited to religious and linguistic minorities and does not apply to any other group of citizens (as under Article 29).
- **Article 350-B:** The Article provides for a Special Officer for Linguistic Minorities appointed by the President of India. It would be the duty of the Special Officer to investigate all matters relating to the safeguards provided for linguistic minorities under the Constitution.

Statutory provisions

- **Article 246:** The National Commission for Minorities Act, 1992, was enacted by Parliament under Article 246 of the Constitution, read with Entry 20 of the Concurrent List in Schedule Seven.
- National Commission for Minority Educational Institutions Act 2004

What are the Steps taken by Govt for Minorities?

Separate Ministry

- The Ministry of Minority Affairs was established with the goal of improving the socioeconomic conditions of minorities through affirmative action and inclusive development so that every citizen has an equal opportunity to actively participate in the development of a thriving nation.

Schemes:

- The **Ministry of Minority Affairs** was established with the goal of improving the socioeconomic conditions of minorities through affirmative action and inclusive development so that every citizen has an equal opportunity to actively participate in the development of a thriving nation.
- **Prime Minister's 15 Point Programme** for the Welfare of Minorities
- One of the Program's main goals is to ensure that a fair share of priority sector lending goes to minority communities and that the benefits of various government-sponsored initiatives reach the underprivileged, which includes minority communities' disadvantaged portions.
- The Program is being executed by the appropriate Central Ministries/Departments through State Governments/Union Territories, and it calls for a set percentage of development projects to be located in minority concentration districts.

KARNATAKA HC SETS ASIDE THE CREATION OF ACB

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Anti-Corruption Bureau

Prepp Mains Booster: Structure, organization, and functioning of the Executive and the Judiciary; Statutory, regulatory and various quasi-judicial bodies

Context:

- Recently, the High Court of Karnataka set aside the constitution of a separate Anti-Corruption Bureau (ACB), under the direct control of the Chief Minister, in 2016 and restored power of Lokayukta to probe cases of graft against public servants.
- The ACB was set up by withdrawing the powers vested with the Karnataka Lokayukta police wing to probe all cases under the Prevention of Corruption Act, 1988 against public servants.



The Chief Minister in power can misuse ACB to control his opponents within his party or the opposite parties. The conditions of the executive government order clearly depict that there is a possibility to favour the party in power or the partymen

KARNATAKA HIGH COURT



What did the High Court observe?

- The High court observed that "the State government is not justified in constituting the Anti-Corruption Bureau by an executive government order, dated March 14, 2016, exercising its executive power under Article 162 of the Constitution of India when the Karnataka Lokayukta Act, 1984, has occupied the field to eradicate corruption in the State.
- The court restored the Lokayukta police wing, which operated before the establishment of the ACB, with the authority to look into corruption charges in Karnataka while declaring that the ACB stood abolished with the immediate effect.
- The court made it quite apparent that any open inquiries, investigations, and cases that the ACB was pursuing were transferred to the Lokayukta police wing for future legal action.

What is the Lokayukta?

- Lokayukta is an anti-corruption ombudsman organization in the states across India. The Lokpal and Lokayuktas Act, 2013, made it possible to create the institutions of Lokpal at the federal level and Lokayuktas at the state level to investigate claims of corruption against public officials and other related issues.

Historical Background:

- The idea of a constitutional ombudsman was initially put out in India's parliament in the early 1960s by Ashok Kumar Sen, who was then the country's minister of law.
- The establishment of two independent authorities - at the Union and State levels - to investigate complaints against public officials, including MPs, was suggested by the First Administrative Reforms Commission in 1966.
- The Lokpal bill was introduced in the Lok Sabha in 1968, but it expired with the dissolution of the Lok Sabha, and since then, it has repeatedly expired in the Lok Sabha.

- Eight attempts to pass the Bill were made up until 2011, but none were successful.
- The Lokpal and Lokayukta positions were recommended for appointment by the Commission to Review the Working of the Constitution in 2002, which also suggested keeping the PM out of the purview of the authority.

What is the present status regarding the Lokayukta?

- In 2013, parliament passed the Lokpal and Lokayukta Act 2013. The Lokpal and Lokayukta Act, 2013, also referred to as the Lokpal Act, aims to appoint a Lokpal for the Union and a Lokayukta for each state to look into allegations of corruption or wasteful spending against public servants.
- The Act is applicable to "public servants" both inside and outside of India, and it covers the entire nation.
- The Lokayukta will serve as a watchdog in our democratic system, supporting citizens in reporting cases of corruption, along with the Income Tax Department and the Anti-Corruption Bureau.
- In many states, there is a discernible variation in the patterns of the structure and the function of Lokayuktas.

Appointment of Lokayukta:

- Two independent, unbiased organisations called the Lokayukta and Up-Lokayukta were established to look into the actions and decisions of public employees.
- In addition to being independent of the legislative and executive branches, these authorities are held to the same criteria as judges on the Supreme Court and High Court.
- Their appointment is made by the Governor. When appointing appointments, the Governor confers with the State High Court Chief Justice and the Opposition Leader in the State Legislative Assembly.

Qualification and Term of office:

- The Lokayukta must have judicial training in the states of Uttar Pradesh, Himachal Pradesh, Andhra Pradesh, Gujarat, and Odisha.
- But there are no statutory requirements in the states of Bihar, Maharashtra, or Rajasthan.
- The Lokayukta's term of office is typically established at five years or 70 years of age (Himachal Pradesh), whichever comes first, and they are not eligible to be reappointed.

Jurisdiction:

- When it comes to the Lokayukta's jurisdiction, there is no uniformity.
- For instance, in Himachal Pradesh, Andhra Pradesh, Madhya Pradesh, and Gujarat, the Chief Minister is subject to the Lokayukta's authority, but not in Maharashtra, Uttar Pradesh, Rajasthan, or Bihar.
- Ministers and higher government officials are subject to the Lokayukta's jurisdiction in the majority of states. In Maharashtra, there are also current and former civil servants.
- The state legislature is the Lokayukta's boss. Its yearly report is delivered to the legislature, and the House typically accepts its recommendations.

Functions and Powers of the Lokayukta:

The following are the authorities that the Lokayukta possesses in this situation:

- Supervisory powers, which include the power to oversee and guide things that have been referred for an initial inquiry or investigation;
- Power to search and seize;
- Power of civil court in certain situations;
- Power to use state government officers' services;
- Power to confiscate assets, proceeds, receipts, and benefits arising from or procured by means of corruption;
- Power to recommend transfer or suspension of a public employee related to an allegation of corruption;

What are the Issues with lokayukta?

The following recommendations were not followed by the Lokpal and Lokayukta Act of 2013:

- Whistleblower protection was among the Jan Lokpal Bill's main demands. The Act does not cover whistleblower protection. A unique law will be required for it.
- There is only one Lokayukta-related section of the Act, and it requires that states approve the Lokayukta Act within a year. However, there is no information available regarding their make-up, abilities, or other traits. In actuality, states have total discretion over the selection, operation, and conditions of their own Lokayuktas.
- There are no clauses in the Citizen's Charter.
- In order to challenge the Lokayukta, which is unable to conduct its own investigations, there are insufficient processes.

Way Forward

The following recommendations were made to the Indian government by sixteen Lokayuktas at the 11th All India Lokayukta Conference:

- Make the Lokayukta the central repository for all allegations of corruption; provide the Lokayukta control over state-run investigative organisations;
- Bring bureaucrats under the Lokayuktas' jurisdiction, giving them the authority to conduct searches and seizures and to initiate contempt proceedings;
- Give the Lokayukta administrative and financial independence to enhance its functioning; and Submit non-governmental organisations (NGOs) with government funding to the Lokayukta's jurisdiction.

LOK ADALATS SETTLED 81 LAKH CASES IN ONE DAY

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: National Lok Adalat

Prepp Mains Booster: Dispute Redressal Mechanisms, Judiciary, Statutory Bodies.

Context:

- Recently the third National Lok Adalat, which was overseen by the National Legal Services Authority (NALSA) and presided over by Chief Justice of India, UU Lalit, was held and 81 lakh cases were handled.

- The NALSA reports that this year, three National Lok Adalats relieved the trial courts of 2.2 crore cases, reducing their massive backlog of 4.2 crore cases.

What was the outcome of the third National Lok Adalat?

- The third National Lok Adalat was notable for the success of digital Lok Adalats (NLA).
- With a total settlement value of more than Rs 5,500 crore, it resolved 81 lakh cases, including 63 lakh pre-litigation cases and 18 lakh pending cases.

What is NALSA?

- NALSA has been constituted under the Legal Services Authorities Act, 1987, and the Chief Justice of India is the Patron-in-Chief of NALSA.
- It aspires to organize Lok Adalats for peaceful conflict resolution and to offer free legal services to socially disadvantaged groups.
- As a result, the Legal Services Authorities Act of 1987 granted the Lok Adalats statutory status.

What is Lok Adalat?

- It is one of the alternative dispute resolution processes, a forum where conflicts or cases are arbitrated or amicably resolved.
- In order to offer fair and prompt justice, it is essentially a form of party-based (parties participating in the conflict) justice in which litigants and judges cooperate to address issues through negotiation, persuasion, and mutual consent.

Who organizes Lok Adalat?

- Lok Adalat may be held at whatever intervals and locations the State government, the district authority, the High Court legal services committee, or the Tehsil legal services committee deems appropriate.
- In all courts, from the Supreme Court to the Taluk Levels, where many cases are decided, National Lok Adalats are held on a regular basis, with Lok Adalats held across the nation on a single day.

What is the composition of Lok Adalat?

- Every Lok Adalat convened for a region must include active or retired judges.
- Other people that the High Court/Tehsil legal services committee, the state/district government, or both may designate.
- Members of the Lok Adalats are the people who make decisions in the Lok Adalats. These individuals simply serve in the capacity of statutory conciliators; they do not exercise any judicial authority.
- They are thus limited to persuasion and are not permitted to exert pressure or coercion on the parties.
- As a result, the Lok Adalat will base its decision on a compromise or agreement struck between the parties rather than making the decision on its own.

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What are the types of cases at Lok Adalat?

- Transfer or change of land title cases, compoundable criminal offences, family disputes, encroachment on forest lands, land acquisition disputes, motor accident claims and cases which are not sub-judice.
- The Lok Adalat shall have no jurisdiction in respect of any matter or case relating to an offence not compoundable under any law.
- Compoundable offences are those in which the parties involved can effect a compromise.

What are the powers of Lok Adalat?

- In each case that is now before the court, Lok Adalat has the authority to decide if a compromise or settlement between the parties to a dispute is possible.
- Any issue that is within the scope of the Lok Adalat's organisation but is not brought before one of its courts (pre-litigation stage).
- The verdict reached by the Lok Adalats is regarded as a civil court's judgement.
- There is no right of appeal against such an award in any court of law, and it is final and binding on all parties.

What is the difference between Lok Adalat and a regular Court?

- The law court sits at its premises where the plaintiffs come with their attorneys and witnesses go to the people to deliver justice at their doorstep, whereas Lok Adalat takes place outside of those premises.
- It is a venue that the people themselves or interested parties like social organisations, social activists, legal advocates, and public-spirited individuals from all walks of life provide.
- It is merely a strong platform set up by the people themselves to allow the common people to air their complaints against government organisations or other citizens and, if feasible, seek a just resolution.

PARLIAMENTARY PANEL REVIEWS GOA CIVIL CODE

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Uniform Civil Code

Prepp Mains Booster: Indian Constitution- Significant Provisions, Secularism.

Context:

Recently, the parliamentary standing Committee on Law and Personnel has reviewed Goa's uniform civil code and some of the panel's members believe that the uniform civil code of Goa contains some peculiar and out-dated clauses regarding matrimony.

What is Goa Civil Code?

The Goa Civil Code is a set of civil laws that govern **all residents** of the coastal State **irrespective of their religion and ethnicity**.

History:

- In 1867, Portugal enacted a **Portuguese civil code** and in **1869 it was extended** to Portugal's **overseas provinces that included Goa**. It is considered a Uniform Civil Code.
- By virtue of **Section 5(1)** of the **Goa, Daman, and Diu Administration Act, 1962**, which stated that "all laws in force in Goa, Daman, and Diu or any part thereof shall continue to be in force therein until amended or repealed by a competent legislature or other competent authority," the Portuguese Civil Code in Goa persisted in India.
- As a result, Goa continues to be governed by this Portuguese civil code which came to be known as Goa Civil Code.

Features:

- A Muslim man whose marriage is registered in the State cannot practice polygamy.
- A married couple shares **property equally** and **assets are divided equally** between the man and woman on divorce.
- The law also **doesn't recognise bigamy or polygamy**, including for Muslims
- **Compulsory registration of marriages before a civil authority**, ensuring that the wife is an equal inheritor

What are the findings of the parliamentary committee?

- The majority of the state's residents were seen to be content and comfortable with it.
- However, there were a few odd provisions in the legislation that dealt with marriage and property partition that were out-of-date and not based on the idea of equality.

Why is the Goa Civil Code reviewed by the parliamentary committee?

- Goa Civil Code (GCC) has drawn attention amid calls for the adoption of a Uniform Civil Code (UCC) throughout the nation.
- The Goa CM had argued that the Goa Civil Code might serve as a template for implementing the UCC throughout the nation by pointing out its many advantages.

What is Uniform Civil Code (UCC) ?

- The UCC is a set of laws that all residents must abide by regardless of their gender, caste, or religion. These laws cover personal issues including marriage, divorce, adoption, inheritance, and succession.
- It is based on the idea that there is no connection between religion and law in modern society.
- Article 44 of Part IV (Directive Principles of State Policy) of the Constitution states that the State shall endeavor to provide a Uniform Civil Code for its citizens throughout India's territory.

Why Does India Need A Uniform Civil Code?

- **Integration of the Nation:** For the protection of India's most vulnerable citizens (women and religious minorities), as well as the promotion of national unity and solidarity, a single code is required.
- **Protection of Vulnerable Sections of Society:** The Uniform Civil Code attempts to safeguard vulnerable sections of society, like women and religious minorities, as envisioned by Ambedkar, while simultaneously boosting nationalistic ardor via unity.
- **Creating a secular society:** The UCC would sever the ties that bind law and religion, which is a goal that a secular, socialist society would highly value. Additionally, it complies with constitutional requirements set forth in Article 44 of the Directive Principles of State Policy.
- **Personal Laws will be simplified:** The code will make the complicated laws of marriage ceremonies, inheritance, succession, and adoptions more accessible to everyone. All citizens, regardless of their faith, will be subject to the same civil law.
- **Constitutional Obligation:** The Preamble expresses the objective of secularism because a secular republic necessitates a common law for all citizens rather than differing norms depending on religious practices.
- **Gender Justice:** If the Uniform Civil Code gets passed, all personal laws will be abolished and existing laws that discriminate against women will be repealed.

What are the issues associated with UCC?

- **Constitutional Challenges:** Implementation Of UCC will lead to the Fundamental rights violation.
- There is concern that the universal civil code will infringe on the fundamental rights of conscience, free profession, practise, and spread of faiths (Article 25), and the freedom to administer religious affairs (Article 26).
- The right to freedom of Religion (Article 25- 28) will contradict with the right to equality (article 14 -15)
- Additionally, under Article 25, a person's freedom of religion is constrained by "public order, health, and morals."
- **Opposition from Religious groups:** This is one of the most basic and evident obstacles to overcome when bringing up the UCC. Fundamentalism, which is deeply established in many Indian religions, does not appear to be fading even in the twenty-first century.

- **Not recommended by Law Commission:** According to a 2018 Law Commission of India report, the Uniform Civil Code is "not required nor desirable at this point" in India. According to the Commission, secularism cannot conflict with the nation's strong tradition of diversity.
- **Diverse personal laws:** Uniformity of any kind is difficult to attain due to the wide range of personal laws and the devotion with which they are followed. Finding a common ground amongst diverse communities is quite difficult.
- **False Perception of Secular society:** Many people still have misconceptions about what the unified civil code actually implies. There are still incorrect views about it, particularly among minorities, making a reasonable discussion about its implementation difficult.
- **Political willpower:** The government may lack the resolve to confront the repercussions of repealing the main faiths' personal laws and persuade the public of the justice and reform they seek to bring to society in order to improve as a nation.
- **Encroachment on religious liberty:** Many people, particularly minorities, see the Uniform Civil Code as an infringement on their religious liberty. They are concerned that a common code will ignore minority traditions and impose regulations imposed and influenced mostly by the majority faith communities.

Way Ahead

- **Awareness:** Major public awareness initiatives are needed to change current personal law reforms, and these initiatives should be driven by the communities themselves.
- **Gradual approach:** A fragmented civil code must be replaced with a uniform one, but the change must be gradual and not abrupt. The administration will therefore need to implement changes piecemeal.
- **Law Commission's recommendations:** The Commission places a focus on initiatives to combine national diversity with claims about universal human rights.
- To expose bias and preconceptions across all religions, it argued for the codification of all personal laws.
- They will eventually be tested on the anvil of the fundamental rights of the constitution.
- It might contribute to the formulation of universal principles.
- These may facilitate putting equity first rather than imposing UCC.
- The better course of action would be to make minor adjustments that would eliminate some of the underlying ridiculousness in some personal rules and make them appropriate for the modern world. It's important to examine differences among religions as well. This could establish the groundwork for later enactment of a UCC.

SUSPENSION OF MPS: THE RULES, AND THE POWERS OF PRESIDING OFFICERS

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: State Legislature

Prepp Mains Booster: Parliament and State Legislatures - Structure, Functioning, Conduct of Business, Powers & Privileges and Issues Arising out of these.

Context:

- Recently, the two Houses of Parliament have suspended 27 lawmakers so far this week (23 from the Rajya Sabha and 4 from the Lok Sabha MPs)
- The Lok Sabha suspensions are effective for the remainder of the session, while those from Rajya Sabha are effective for the remainder of this week.

What is the suspension of MP?

- To ensure that the House runs properly, the Speaker of the Lok Sabha and the Chairman of the Rajya Sabha serve as the Presiding Officers.
- The Speaker and the Chairman** has the **authority** to compel a member **to leave the House** or **suspend him/her** in order to ensure that business is handled properly.

Why the suspension of MP?

- Suspension of the MPs is due to the disruption caused by the MPs in the proceedings of the house.
- Over the years, the political analysts and experts have discussed and identified four broad reasons leading to disorder in legislatures.

These are:

- MPs don't have enough time to bring up important topics.
- Government indifference and the Treasury benches' retaliatory stance.
- For political or publicity purposes, parties willfully provoke commotion.
- Not taking prompt action against MPs who disrupt parliamentary processes
- These interruptions have an impact on Parliament's ability to undertake discussions on urgent subjects.
- The 16th Lok Sabha (2014–19), according to the PRS report, lost 16% of its allotted time due to disturbances.

What are the rules regarding the suspension of MPs?

Lok Sabha

Rule Number 373

- According to Lok Sabha Rule Number 373 of the Rules of Procedure and Conduct of Business, presiding officers have the authority to force an MP to leave the chamber for

any unruly behaviour.

- According to this rule, any Member who has been given permission to leave the room must stay away for the balance of the meeting.

Rules 374 and 374A - to handle more obstinate (uncooperative) members

- If a member of Parliament (MP) continues to disrupt the House despite numerous warnings, Rule 374 gives the Presiding Officers the authority to name the legislators.
- The House may then introduce a motion to suspend the MP for no longer than the remainder of the current session.
- In December 2001, Rule 374A was added into the Rule Book. The goal was to avoid making a motion for suspension, which was necessary.
- The Speaker may designate an MP under this regulation, who will then be automatically suspended for five days or the remainder of the session, whichever is less.
- With the caveat that the House may, at any moment, decide to end such a suspension upon a motion being made.

Rajya Sabha

Rule 255 of the Rule Book of Rajya Sabha

- It gives the Rajya Sabha Chairman the authority to order any Member to leave the House right away if they engage in any unruly behaviour.

Rule 256 of the Rule Book of Rajya Sabha

- This rule gives the Chairman the authority to identify any members who consistently flout the Chair's authority or violate Council norms.
- The House may then vote to suspend the Member for a term that does not include the balance of the current session.
- It is important to keep in mind that, in contrast to the Lok Sabha (under rule 374A), the Rajya Sabha cannot suspend a member without first passing a motion for that purpose.

Can courts intervene in a matter of suspension of MPs?

- The Indian Constitution's Article 122 states that parliamentary proceedings cannot be challenged in court.
- However, there have been certain instances where courts have gotten involved in how legislators operate procedurally.
- For instance, the Maharashtra Legislative Assembly passed a motion suspending 12 BJP MLAs for a year during its 2021 Monsoon Session.
- The Supreme Court heard the case and determined that the resolution was only valid for the rest of that session.

What are the Terms of suspension?

- The session's remaining time is the maximum amount of time that can be suspended.



- Members who are on suspension are unable to enter the chamber or participate in committee meetings.
- He won't be able to provide notice for debate or submission.
- He forfeits his right to receive an answer to his inquiries.

Can Suspending the MPs be the solution?

- The presiding officers are utilising the suspension power to quickly punish MPs who are interfering with the proceedings in order to remedy the problem.
- However, every time a member of parliament is suspended, there are strong feelings on both sides.
- The current ruling party always insists on maintaining order, while the opposition consistently asserts its right to protest.
- Therefore, experts believe that a balance must be struck and that any response to disruptive behaviour must be long-lasting and consistent with democratic principles.

MPS DON'T HAVE IMMUNITY FROM BEING ARRESTED IN CRIMINAL CASES

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Members of Parliament

Prepp Mains Booster: Structure, organisation and functioning of the Executive, Legislature and Judiciary.

Context:

Recently, Rajya Sabha Chairman Venkaiah Naidu clarified that Members of Parliament (MPs) do not have immunity from being arrested in criminal cases — when the House is in session or otherwise. He also noted that MPs could not avoid summons from law enforcement agencies.

What are Parliamentary Privileges?

- Parliamentary privileges are certain rights and immunities and exemptions enjoyed by members of the house (legislature), individually and collectively, so that they can "effectively discharge their functions".
- When any of these rights and immunities are being disregarded, the offence is called a breach of privilege and is punishable under law of Parliament.

What are provisions related to Parliamentary Privileges?

- Constitution of India (under **Article 105 for Parliament**, its members & committees and **Article 194 for State Legislature**, its members & committees) confers certain privileges on legislative institutions and their members to:

- Protect freedom of speech and expression in the House and insulate members against any litigation over matters that occur in these houses.
- Protect against any libel through speeches, publishing or printing.
- Ensure their functioning without undue pressure, influence or coercion
- Ensure sovereignty of Parliament.
- Currently, there is no law enacted by Parliament that codifies all the privileges of the legislators in India.
- Rule No 222 in Chapter 20 of the Lok Sabha Rule Book and correspondingly Rule 187 in Chapter 16 of the Rajya Sabha rulebook govern the privileges of members.

Privileges are based on five sources:

1. Constitutional provisions
 2. Various laws of parliament
 3. Rules of both the houses
 4. Parliamentary conventions
 5. Judicial interpretations
- Whenever any of these rights and immunities are disregarded, the offence is called a breach of legislative privilege and is punishable under the law of Parliament.
 - However, there is no objective definition and guidelines on what constitutes a breach of privilege and what punishment it entails.

Types of Privileges

Individual Privileges

- **Freedom from Arrest:** Members of Parliament cannot be arrested during session and 40 days before and 40 days after the session. Protection in this case, is available only in civil cases and not in criminal cases.
- **Freedom of Speech:** Members of Parliament/state assembly are entitled to the freedom of speech in the houses and are not liable to any court proceedings for the speech given in the house or its committees. However, this right of members is regulated using the rules guiding such provisions of the house.
- **Exemption from Attendance as Witnesses:** Members of Parliament/state assembly are exempted from jury service. They can refuse to appear as a witness in a case pending in a court and give evidence when Parliament is in session.

Collective Privileges

- **Right to Publish Debates and Proceedings:** Parliament/Assembly has freedom of press to publish true reports about Parliamentary proceedings. But, this is not the case in secret sittings. It can also prohibit the press from publishing its proceedings, when needed.
- **Right to exclude strangers:** Parliament/Assembly can hold a secret sitting of the legislature and exclude

strangers (those who are not members or visitors) from the proceedings.

- **Right to Punish Members and Outsiders:** Parliament/Assembly has punitive powers to punish those who are judged guilty of contempt of the House. Only they can make rules to regulate their own proceedings. There is also a bar on the courts from making inquiries into the proceedings of the house (speeches, votes etc.)

What recent observations has the Chairman of Rajya Sabha made?

- **Under Article 105 of the Constitution:** MPs enjoy certain privileges so that they can perform their parliamentary duties without let or hindrance.
- **Civil Cases:** MP cannot be arrested in a civil case, 40 days before the commencement of the session or committee meeting, and 40 days thereafter.
- This privilege has already been incorporated under Section 135A of the Civil Procedure Code, 1908.
- **Criminal matters:** In connection with criminal matters, MPs are not on a different footing than ordinary citizens. It means that an MP does not enjoy any immunity from being arrested in a criminal case during the session or otherwise.
- **1966 Observation of Dr Zakir Hussain (then Rajya Sabha Chairman):** MPs do enjoy certain privileges so that they can perform their duties. One such privilege is freedom from arrest when Parliament is in session, but it is limited only to civil cases and not criminal cases. This is because they are not allowed to interfere in the administration of criminal proceedings.
- **K Anandan Nambiar Case (1965):** Supreme Court held that a Member of Parliament can not claim any special status higher than that of ordinary citizen and is as likely to be detained, arrested, or questioned even during the session.
- **Earlier observations:** Lawmakers are bound to respect the law and legal procedures. No member can avoid appearing before any investigating agency, when called upon to do so, by citing reason of House duty.

PARLIAMENT PASSES NATIONAL ANTI-DOPING BILL, 2022

Priority: Low



Primary Source: The Indian Express

Prepp Prelims Booster: National Anti-Doping Bill

Prepp Mains Booster: Statutory, regulatory, and various quasi-judicial bodies; Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

Recently, Indian Parliament passed the National Anti-Doping Bill, 2022 after it was approved by Rajya Sabha. The Lok Sabha had already passed the bill earlier. With this, India joins a league of nations like the United States, China, France or Australia, Japan, South Korea to have statutory anti-doping law and a dope test laboratory.



What is Doping?

It is an unethical practice of consumption of certain prohibited substances by athletes to enhance their sporting performance. Performance enhancing drugs (PEDs) is another term used for prohibited substances/drugs used by athletes to improve their athletic performance.

What is the significance of the Bill?

- The bill seeks to build institutional capabilities in anti-doping and enable the hosting of major sports events.
- It aims to protect the rights of all sportspersons by achieving, time-bound justice to athletes, apart from enhancing cooperation among agencies in fighting doping.
- It also reinforces India's commitment to fulfilling international obligations for clean sports.
- It gives effect to the United Nations Educational, Scientific and Cultural Organization (UNESCO) International Convention against doping in sports and compliance with such other obligations and commitments.
- It will help in establishing a robust, independent mechanism for anti-doping adjudication.
- It will give legal sanctity to the functioning of NADA and the National Dope Testing Laboratory (NDTL).
- It will help in creating opportunities for science, academic research, and manufacturing relating to Anti-Doping.
- It will also establish standards for the manufacturing of sports nutritional supplements in India.

What are the key features of the bill?

- **Objective:** To provide a statutory framework for the functioning of the National Anti-Doping Agency (NADA) and National Dope Testing Laboratory in sports.

- To protect the interest of sportspersons by providing them ample space for them to put forth their versions especially when they face anti-doping charges
- **Prohibition of Doping:** It prohibits athletes, athlete support personnel, and other persons from engaging in doping in sport.
- **Consequences of Violations:** Sportspersons violating the anti-doping rule will face disqualification and also forfeiture of medals, points, and prizes. They will be also ineligible to participate in competition or event for the prescribed period, financial sanctions etc.
- **Statutory Backing for National Anti-Doping Agency (NADA):** The Bill provides for constituting this NADA as a statutory body.
- **Structure:** It will be headed by a Director General appointed by the Central government.

Functions of NADA:

- Planning, monitoring, and implementing anti-doping activities.
- Investigating anti-doping rule violations,
- Promoting anti-doping research.

Powers to NADA:

- It can conduct investigations, levy sanctions for anti-doping rule violations, and frame disciplinary procedures to be adopted.
- It also has powers of inspection, sample collection, sharing, and free flow of information.

The National Board for Anti-Doping in Sports

- The Bill establishes it to make recommendations to the government on anti-doping regulation and for compliance with international commitments on anti-doping. It will oversee the activities of NADA and issue directions to it.

Dope Testing Laboratories

- The bill makes the existing National Dope Testing Laboratory a principal dope testing laboratory. It also allows the central government to establish more National Dope Testing Laboratories.

What is NADA?

- It was set up in 2005 as a registered society under Societies Registration Act, 1860 with a mandate for Dope free sports in India.
- Now given statutory status through National Anti-Doping Bill, 2022.

Primary objectives

- Implement anti-doping rules as per WADA (World Anti-Doping Agency) code,
- Regulate dope control program,
- Promote education and research, and

Create awareness about doping and its ill effects.

What are the issues with Bill?

- **Qualification of Director General of NADA:** They are not specified in the Bill and are left to be notified through Government Rules.
- **Removal of Director General of NADA:** It only allows the Central Government to remove Director General from the office on grounds of misbehavior or incapacity or "such other ground".
- Thus, leaves these provisions to the discretion of the Central government, which may affect the independence of functioning of the Director General.
- This also goes against the mandate of the World Anti-Doping Agency which mandates that such bodies must be independent in their operations.
- **Powers of the board:** Under the Bill, powers of the board to remove the members of the Disciplinary Panel and Appeal Panel on grounds are not specified.
- They will be specified by regulations. There is also no requirement to give them the opportunity of being heard. This may affect the independent functioning of these panels.

What is the World Anti-Doping Agency (WADA)?

- It is an international independent agency to promote, coordinate, and monitor the fight against drugs in sports.
- It was set up in November 1999 under International Olympic Committee
- It is recognized by UNESCO International Convention against Doping in Sport (2005).

Functions of WADA:

- Its primary role is to develop, harmonize, and coordinate anti-doping regulations across all sports and countries.
- It does so by ensuring proper implementation of the World Anti-Doping Code (WADA Code) and its standards, conducting investigations into doping incidents, conducting research on doping, and educating sports persons and related personnel on anti-doping regulations
- It publishes the list of prohibited substances at least once a year and distributes it to all the signatories. It exempts the use of prohibited substances if needed for therapeutic use, as specified.

MAHARASHTRA ASSEMBLY PASSES AMENDED ACT ON CIVIC BODIES REGARDING DIRECT ELECTION OF NAGAR PARISHAD, PANCHAYAT HEADS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: ULBs

Prepp Mains Booster: Devolution of powers and finances up to local levels and challenges therein.

Context:

- The bill to alter the 1965 Maharashtra Municipal Council, Nagar Panchayats, and Industrial Townships Act was introduced by CM Chief Minister Eknath Shinde.
- The amendment was put forth to permit the direct election of the heads of the municipal council or Nagar Parishad.

What is a Nagar Panchayat?

Nagar Panchayat, for a transitional area, i.e., an area that is being transformed from a rural to an urban area.

Who is the chairperson elected directly/indirectly?

It has been left to the State legislature to prescribe by law the manner of reservation of the offices of the Chairpersons of Municipalities.

What are Provisions of Urban Local Bodies under the 74th Constitutional Amendment Act?

- Article 243Q mentions the Constitution of Municipalities i.e. Nagar Panchayat, Municipal Council, and Municipal Corporation.
- Article 243R mentions the Composition of Municipalities, it states that all of its members are directly elected by the people of the Municipal area which is divided into territorial constituencies known as wards..
- Article 243 S mentions about constitution and composition of ward committees consisting of wards and member of wards who represent that ward in the Municipality
- Article 243 T deals with the reservation of the seats in every Municipality.
- Article 243W deals with the powers, authorities, and responsibilities of municipalities include urban planning, financial and social development, and so on.
- Article 243X states that the constitution has left it open to the Legislature of a State to specify by law matters relating to the imposition of taxes.

Article 243 ZE says that there will be a Metropolitan Planning Committee in every Metropolitan region to set up a draft improvement plan for the Metropolitan region overall.

Concerns

- Not only will it guarantee that wealthy candidates defeat those from lower socioeconomic status, but it will also prevent candidates from Scheduled Caste and Scheduled Tribe from holding the top position. As the amendment

does not provide for reservation of seat to women, SCs, STs, OBCs, and Women.

- The provision to introduce a motion of no confidence against the head is not included in the Bill.
- There could be a situation where the head is from one party and the members are from another, causing tension in the local body's management.
- Similar decisions to elect the head directly were made in the past but were later overturned since they were considered to be undemocratic.
- It will lead to more competition and therefore more spending in elections.

Advantages

- The elected head will get legal protection and stable tenure.
- The direct election will give more democratic legitimacy.
- It will increase the accountability of the elected head.
- It will prevent horse trading that takes place during the indirect elections.

Historical Background

- The first municipal corporation in India was set up at Madras in 1687, and in 1726 the municipal corporations were set up in Bombay and Calcutta.
- In 1870, **Lord Mayo's resolution for financial decentralization** paved the way for local self-government.
- The famous resolution by Lord Ripon, which is also called the Magna Carta of Local Self Government, was issued by Lord Ripon's Government on 18th May, 1882.
- By the Government of India Act 1919, the local self-government was transferred to ministers responsible to new provincial legislatures.
- The Municipal Act of 1919 and District Municipalities Act of 1920 in Madras, gave powers to the Councils to elect their own chairmen and frame their own budgets.
- Another Act passed in 1925 made the city municipalities, with a population exceeding one lakh wholly elective.
- Government of India Act, 1935 introduced provincial autonomy and local self-government was declared as a provincial subject.
- The National Government appointed a committee in 1948 known as the Local Finance Inquiry Committee, to report on ways and means for improving the financial resources of local bodies.
- In 1985, the National Commission on Urbanization was appointed by the Central government which gave its report in 1988. Commission was set up to study and give suggestions on all aspects of urban management.
- The Constitution (74th Amendment) Act, 1992 is a landmark step of the Government of India to strengthen local self-government in cities and towns.

WHISTLEBLOWER COMPLAINTS: HOUSE PANEL SUMMONS TWITTER EXECUTIVES

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Whistleblower

Prepp Mains Booster: Important Aspects of Governance, Transparency and Accountability, Transparency & Accountability.

Context:

A day after a former Twitter executive claimed that the Indian government "forced" Twitter to hire people who were "government agents" and had unrestricted access to enormous amounts of the platform's user data, the Parliamentary Standing Committee on Information Technology has called executives of the social media platform for a hearing.

What was the complaint of whistleblowers?

- Former Twitter employees stated in a lawsuit submitted to the Securities and Exchange Commission (SEC) that Twitter "knowingly" allowed a "Indian government agent direct unsupervised access to the company's servers and user data."

What is whistleblowing?

- Whistleblowing is the act of revealing information about illegal or unethical behaviour within a company to any concerned stakeholders or employees.
- A whistleblower is someone who raises suspicions about a person or group involved in such illegal activity.

History of the Whistleblowers Protection Act

- In order to fight corruption, the Indian Legislation Commission urged in 2001 that a legislation protecting informants be passed. It had also drafted a measure to deal with the issue.
- In response to a plea brought after the infamous murder of an NHA officer, the **Supreme Court of India directed** the Central government to establish "administrative apparatus for acting on allegations from whistleblowers till a legislation is implemented" in 2004.
- In response, the government published the "**Public Interest Disclosure and Protection of Informers Resolution (PIDPIR)**" in 2004.
- This resolution gave the Central Vigilance Commission (CVC) the power to respond to claims made by informants.
- In its 2007 report, the **Second Administrative Reforms Commission** recommended that a separate law be passed to safeguard whistleblowers.
- India has been a **signatory** to the **United Nations Convention Against Wrongdoing** since 2005 (though it has not yet been ratified), which calls on states to make it simpler for public officials to report corruption and to protect witnesses and experts from retaliation.

- The Convention also guards against victimisation of the person making the complaint.
- The **Whistleblowers Protection Bill**, which was introduced in 2011 and **became an Act in 2014**.

What are the highlights of the whistleblower protection act 2014?

- Mechanism:** The law sets a mechanism for receiving complaints about allegations of corruption or willful abuse of authority or discretion against any public official and for conducting an inquiry into those allegations.
- Competent Authority:** It permits anyone to disclose a public interest before a Competent Authority, including a public employee. The law has outlined numerous competent authorities in detail.
- No Anonymous Complaint:** The legislation clearly specifies that no action will be taken by a competent body if the complainant does not verify his/her name and forbids the filing of anonymous complaints.
- Time limit for filling complaint:** Seven years is the maximum time frame for filing a case.
- Exemptions:** Under the Special Protection Group Statute of 1988, the Special Protection Group (SPG) personnel and officials are exempt from the application of the act.
- Appellate Court:** Within sixty days of the order's date, anyone who feels wronged by a Competent Authority order may file an appeal with the relevant High Court.
- Penalty:** Anyone who knowingly or recklessly divulges the identity of a complainant will be subject to a fine of up to Rs 50,000 and a term of imprisonment of up to 3 years.

What issues do whistleblowers face?

- Governments, businesses, and even society on some level despise whistleblowers; in some nations, they are even referred to as "traitors." This viewpoint is best shown by the story of Julian Assange and Edward Snowden from Wikileaks.
- Whistleblowers risk being sacked from any position, office, or work, legal action, criminal accusations, and social disgrace.
- Character assassination, disciplinary action from the workplace, and challenging legal procedures are a few examples of vindictive tactics intended to make someone's employment more challenging and/or insignificant.
- Despite the large fines, whistleblowers are still in a hazardous situation because these prosecutions typically involve a complex combination of facts and employment history.

What steps may be taken to strengthen the whistleblower?

- Awareness:** It is important to spread knowledge about the Whistleblowers Protection Act's purpose and principles. To inform employees and employers about the importance of the Whistleblowers Protection Act, seminars should be given in both public and private sectors of business.

Employees must be made aware of the various disclosure techniques.

- Furthermore, even while the Act permits anonymous disclosures, it makes no mention of absolute anonymity.
- The Whistleblower Act permits the whistleblower's identity to be made public. If this is done, there is a chance that the whistleblower will suffer harm.
- The phrase "competent authority" should be redefined and given a broader definition to encompass a number of organisations and agencies that are now not included, such as the lower judiciary.
- The Act ought to create a Protection Agency that would assist current whistleblowers in making appropriate public disclosures as well as protect those who have already come forward.
- The state should come up with a plan for handling baseless complaints, perhaps by setting up a strong screening process. Removing the ability to report anonymously complicates the whistleblower procedure and deters people from raising issues.

ELECTORAL BONDS: PARTIES MOP UP OVER RS 10,000 CRORE SINCE 2018

Priority: High



Primary Source: Indian Express

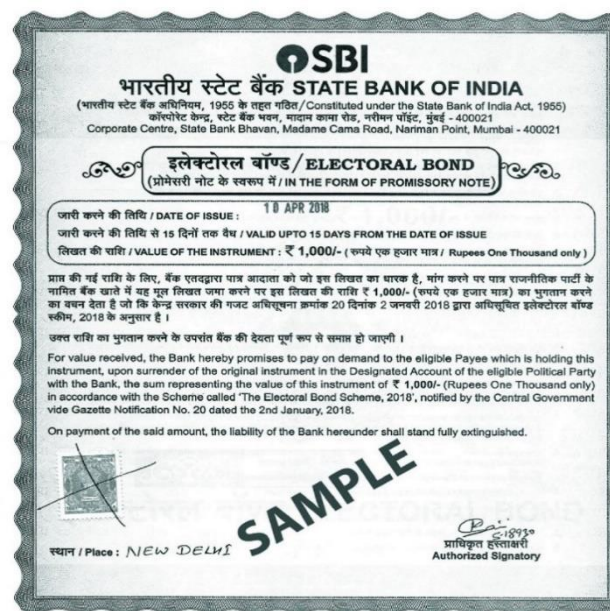
Prepp Prelims Booster: Electoral bonds

Context:

- According to information available from State Bank of India (SBI), donations to political parties through electoral bonds (EBs) have surpassed the Rs 10,000 crore milestone, with parties receiving an additional Rs 389.5 crore through such bonds in the 21st sale of EBs held between July 1 and 10.
- As a result, since the EB scheme was established in 2018, the total revenue collected by parties has increased to Rs 10,246 crore from various anonymous contributors in 21 rounds.

What are electoral bonds?

- These are a type of **debt instrument** that donors can purchase from a bank and then provide to a political party to cash in.
- **Only an approved person may redeem** these by depositing the funds into a designated account held with a bank.
- **SBI issuing bonds** in denominations of 1,000, 10,000, one lakh, ten lakh, and one crore rupees.
- Donors acquire electoral bonds in an anonymous manner, and they are **only valid for 15 days** after they are issued.
- The only bank permitted to sell these bonds is SBI.
- The **Central Government** may specify that the bonds will be offered for sale for 10 days each in the months of January, April, July, and October.
- **No Interest is payable** on Electoral Bonds under this Scheme



- SBI deposits these into the Prime Minister's Relief Fund if a party hasn't encashed its bonds within 15 days.

Who is eligible to buy electoral bonds?

- As per provisions of the Scheme, **Electoral Bonds** may be purchased by a person (as defined in item No. 2 (d) of Gazette Notification), **who is a citizen of India or incorporated or established in India.**
- An individual may purchase Electoral Bonds alone or in a group with other individuals.
- To be eligible to receive Electoral Bonds, a political party **must be registered under Section 29A of the Representation of the People Act, 1951 (43 of 1951)**, and it must have **won at least 1%** of the votes cast in the most recent general election for the **House of People or the State's Legislative Assembly.**
- A qualifying **political party may only redeem** the electoral bonds through a bank account with the authorised bank.

What are the criticisms against these bonds?

- The electoral bonds programme is mostly criticised for doing the exact opposite of what it was intended to do, which was to increase election financial transparency.
- **Anonymity** : For instance, some contend that electoral bonds' anonymity only **applies to the general people and the opposing parties.**
- Such bonds are sold through a government-owned bank (SBI), which gives the government access to information about the financiers of its adversaries.
- **Highest Denominations** : Election-related bonds were introduced with the goal of facilitating easy funding of political parties by the general public, however more than 90% of the bonds issued have been of the highest denomination (Rs 1 crore).
- **Corporate Funding** : Additionally, there was a limit on how much a business may donate to a political party prior

to the announcement of the electoral bonds scheme: 7.5% of the average net profits of a corporation over the previous three years.

- However, the **government removed this restriction after amending the Companies Act**, according to critics, allowing corporate India to get unrestricted funds.

THE COAL MINING PROTESTS IN THE HASDEO ARANYA REGION

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Coal Mining

Prepp Mains Booster: Mechanisms, laws, institutions, and Bodies constituted for the protection and betterment of these vulnerable sections;

Context:

In the past year, there have been numerous anti-mining demonstrations in the Hasdeo Aranya Forest region. Recently, the Chhattisgarh Legislative Assembly also passed a private member resolution demanding the central government revoke the allocation of any coal mining blocks in the ecologically vulnerable Hasdeo region.



What is a private member resolution?

- A MLA of a house who is not a Minister — whether he/she happens to be from the ruling party or not — is considered a private member.
- Private members can bring private member resolutions in the house and if passed by the house, it becomes an expression of what the House thinks.
- It is different from a private member bill which becomes law in case of approval of the state legislature.

Recent instances of such private member resolutions: They were passed by State Assemblies of Punjab and Kerala, during the farm law agitation, where both state legislatures had expressed their displeasure against the then Centre's proposed (now withdrawn) farm laws.

What is the Geographic location of Hasdeo Aranya forests?

- It is spread across 1,878 sq km in North-Central Chhattisgarh. It falls under the Korba, Sujapur and Surguja districts of Chhattisgarh with a sizable tribal population.
- It lies in the catchment area of the Hasdeo river (which is the largest tributary of the Mahanadi river which originates in Chhattisgarh and flows through Odisha into the Bay of Bengal).



What is the importance of Hasdeo Aranya forests?

- It is the largest un-fragmented forest in Central India consisting of pristine Sal (Shorea robusta) and teak forests. It is renowned for both its abundant biodiversity and its coal reserves.
- It is often referred to by people as the lungs of Chhattisgarh. Its forests are ecologically sensitive due to the rich biodiversity they offer and due to the presence of a large migratory corridor for elephants.

What is the mining activity status in the region?

- Underneath Hasdeo Aranya, there is Hasdeo Arand Coal Field (HACF) spread over nearly 1,880 sq km and comprising 22 coal blocks.
- HACF has around 5 billion tonnes of coal reserves. 18 blocks in it have a projected capacity of 120 million tonnes per annum, which can support a thermal production capacity of 20,000 MW.
- Mining these coal blocks is vital for meeting planned thermal power targets, as 70% of India's power production is coal-fired.

What is the Clearance Status for Mining?

- In 2010, the Centre categorised Hasdeo Aranya to be a “no-go” zone for mining. It also had ruled out mining in any of these blocks.
- Due to demand for mining, the Union Environment Ministry in 2011 granted clearance for the mining of one coal block. At present, of the 22 blocks, seven blocks have been allotted to different companies. Of these, two- Chotia (I and II) and Parsa East Kete Basan (PEKB) blocks are operational.
- However, the state government had withdrawn clearances to mining companies after the gram sabhas opposed mining in Madanpur South and Gidmudi Paturia blocks that were allotted to Andhra Pradesh Mineral Development Company (APMDC) and Chhattisgarh State Power Generation Company (CSPGC).
- Four other blocks which were listed for auction by Centre, were also taken off the list after the State government requested Centre to not allow mining in these blocks located in the catchment areas of the two important rivers Hasdeo and Mand.

What will be the environmental impact of Mining in this region?

- Two studies by ICFRE and Wildlife Institute of India (WII) have underlined the importance of biodiversity in the region and noted that mining will undoubtedly affect it.
- It will aggravate the issue of human-elephant conflicts due to habitat loss or clearing of forests because of mining.
- Loss of the natural environment due to mining will have a serious impact on the community in form of loss of livelihood, identity, and culture, especially with regards to tribal people living in the area
- It will lead to the displacement of people and further cause marginalisation of tribals.
- The forests here are a catchment of the Hasdeo River, which is critical for the flow of the perennial Mahanadi river.
- It is also the watershed of Hasdeo Bango reservoir, and thus, critical for irrigation of 3 lakh hectares of “rice-bowl” state.

Welfare Schemes for vulnerable Sections of the population By centre and States, Issues Relating to Development and Management of Social Sector/ Services relating to Health, Education, Human Resources

OVER 35.5% KIDS STUNTED, GOVT RELEASES TARGET TO CURB MALNUTRITION

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Malnutrition

Prepp Mains Booster: Issues Related to Children and Women, Health, Government Policies & Interventions

Context:

The Union Minister for Women and Child Development in a written statement tabled in Rajya Sabha, told the target for reducing malnutrition in the nation, particularly among children. She stated that the ministry aims to reduce stunting and undernutrition (underweight prevalence) among children under 6 years old by 2% annually.

What is Malnutrition?

- Malnutrition, in all its forms, includes **undernutrition** (wasting, stunting, underweight), inadequate vitamins or minerals, anaemia, overweight, obesity, and resulting diet-related noncommunicable diseases.
- The term malnutrition addresses 3 conditions:
- **Undernutrition:** includes **wasting** (low weight-for-height), **stunting** (low height-for-age) and **underweight** (low weight-for-age).
- Both stunted and wasted children are considered to be **underweight**, indicating a lack of proper nutritional intake and inadequate care post-childbirth.
- **Anaemia** is a condition where there aren't enough healthy red blood cells in the blood.
- **Micronutrient-related malnutrition:** includes micronutrient deficiencies (a lack of important vitamins and minerals) or micronutrient excess; and
- Overweight, obesity and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes and some cancers) are also emerging forms of malnutrition.

What are the targets set by the Government?

- The government aims to cut the prevalence of underweight and stunting in children under the age of six by 2% annually.
- The government wants to reduce anaemia in children between the ages of six and 59 months, low birth weight by 2% annually, and women's and adolescent girls' anaemia by 3% annually.

What is the present status of Malnutrition in India?

Recently released NFHS-5 Report gives us insight of malnutrition status in India:

- According to the NFHS-5,
 - **Stunting** has reduced from 38.4% to 35.5%,
 - **wasting** from 21.0% to 19.3%
 - **Underweight** is down from 35.8% to 32.1%,.
- Meghalaya has the highest number of stunted children (46.5%), followed by Bihar (42.9%).
- Maharashtra has 25.6% wasted children (weight for height), the highest, followed by Gujarat (25.1%).
- Jharkhand has the highest percentage of women (26%), between 15 and 49 years, who have a below-normal Body Mass Index (BMI).

What are the factors behind poor nutritional outcomes?

- **Agriculture Output:** Due to factors such as decreasing soil fertility, fragmented lands, and fluctuating farm

produce market prices, agriculture output from small and marginal holdings is either static or dropping.

- **Low Income:** One group of people's relative income has been declining.
- This has a negative impact on their ability to buy enough nutritious food, especially when food prices are rising.
- **Inefficiencies in Public Distribution System:** The state's public distribution system is inefficient and inaccessible to the general public which are creating the issue of food security in addition to malnutrition.
- **Rural Unemployment:** The impoverished rural livelihoods sector, as well as a lack of alternative sources of income, have contributed significantly to the expanding joblessness in rural areas.
 - According to the PLFS 2017-18, rural unemployment was at a worrying 6.1 percent, the highest level since 1972-73.
- **Inadequate attention towards health and sanitation:** Availability of Ample drinking water, water for daily usage, healthcare facility, toilet facilities has also negatively impacted the nutritional status in the past.
- **Others factors:** A number of intricate elements with roots in our socio-cultural environment contribute to malnutrition: Like female literacy, adequate food intake to pregnant women, social taboos, unhealthy hygiene practices etc. are examples of such issues.

What are the initiatives taken by the government to address malnutrition?

Poshan Abhiyan

- The Government of India approved it in **2017** and it is a **multi-ministerial convergence effort** to ensure the attainment of malnutrition free India **by 2022**.

Integrated Child Development Scheme:

- It was launched on **2nd October 1975** and the scheme focuses on early **childhood care and development** to improve the nutritional indicators.
- The target group under the scheme are: children in the **age group of 0-6 years, pregnant women and lactating mothers**.

Matritva Sahyog Yojana:

- Indira Gandhi Matritva Sahyog Yojana (IGMSY) is a **Conditional Maternity Benefit** (CMB) initiative. The scheme was launched in **2010**.
- The scheme was launched for **pregnant and lactating women** to improve their health and nutrition status to better-enable the environment by providing cash incentives to pregnant and nursing mothers.

Pradhan Mantri Matru Vandana Yojana:

- It is a **centrally sponsored scheme launched in 2017**.
- Pregnant women and lactating mothers will receive Rs. 6,000 in their bank accounts to help them get better delivery facilities and to compensate for salary loss. This money will be only available for the family's first child.

Mid-Day Meal Scheme:

- The Mid-day Meal Scheme is a school meal programme aimed at improving the nutritional status of school-aged children.
- It is applicable to all students in government schools, government-aided schools, special training centers, and madrasas that are supported under the Samagra Shiksha Abhiyan.

National Food Security Mission:

- Its aim was to increase the production of specific crops over time by expanding the area and improving productivity.
- It was based on the National Development Council's agriculture sub-suggestions committee's (NDC).

National Nutrition Mission:

- It is the government's **flagship programme to improve nutritional outcomes** for children, pregnant women and lactating mothers.

Anemia Mukd Bharat Abhiyan:

- The mission, which was started in 2018, intends to increase anaemia's yearly rate of decline from one to three percentage points.

Way Ahead

- Additionally, there is a need to eliminate gaps and inefficiencies in the current system through education, community involvement, and empowerment.
- To ensure their sustainable development and enhanced quality of life, there is a greater need now to expand investment in women's and children's health and nutrition.
- The last-mile delivery of essential nutrition services and treatments must be ensured by direct interaction with nutritionally vulnerable groups (such as the elderly, pregnant women, people with special needs, and young children).
- Programs should be monitored and evaluated, and both systemic and local issues should be addressed.
- The nation should take innovative and practical measures to combat hunger and the rising anaemia burden.

HIGHER EDUCATION COMMISSION OF INDIA

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: Higher Education Commission of India
Prepp Mains Booster: Issues Relating to Development and Management of Social Sector/Services relating to Education.

Context:

The Government of India recently revealed that it is revising the draft legislation (Draft Higher Education Commission of India (Repeal of University Grants Commission Act) Bill, 2018) that will establish the Higher Education Commission of India (HECI) for interdisciplinary college and university education. The updated draft will be in accordance with India's National Education Policy.

What is Higher Education Commission of India (HECI)?

- The Higher Education Commission of India (HECI) is supposed to replace the University Grants Commission (a statutory body) which has been responsible for the maintenance of the standard and disbursal of grant function to higher education in India.
- HECI is envisaged to function as a body that lays down uniform standards for the development of education in India.
- HECI is expected to function as the common, single point regulator for the higher education sector to relook and repeal existing Acts and restructure various existing regulatory bodies.

What is the Draft Higher Education Commission of India Bill, 2018?

- "Draft Higher Education Commission of India (Repeal of University Grants Commission Act) Bill, 2018" is the name of the bill.
- It was introduced in January 2018. However, it was never passed by the Parliament. And in 2020, the Government of India introduced the National Education Policy 2020.

What are the features of the Draft Higher Education Commission of India Bill, 2018?

Establishment of HECI:

- The Bill provides for establishing the Higher Education Commission of India by repealing the University Grants Commission Act, 1956.

Coverage of HECI:

- India by repealing the University Grants Commission Act, 1956.
- The Bill is applicable for all higher educational institutions established, under any Act of the Parliament excluding Institutions of National Importance so notified by the Government, Act of State Legislature and to all Institutions Deemed to be Universities so notified by the Government.

Composition of the Commission:

- The bill provides for the composition of the HECI, Term of office of Chairperson, Vice Chairperson and 12 Members.

Separation of academic and funding aspects:

- HECI will be in charge of ensuring academic quality in universities and colleges
- The Ministry of Education (MoE) will be responsible for funding universities and colleges.

Functions of the commission:

- Upholding intellectual standards within the institution of higher education
- Describe the learning objectives for higher education programmes of study;
- Set standards for curriculum development, teacher preparation, assessment, research, and any other component that affects student learning outcomes in higher education institutions;

- Analyze the performance of higher education institutions on a yearly basis in relation to the established standards;
- Encourage HEIs to conduct research and work with the government to provide appropriate financing for that research;
- Establish a strong accreditation process that will allow multiple HEIs to evaluate students' academic progress;
- Offer institutions that are deemed to be failing to uphold the necessary academic criteria coaching;
- Order the closure of any institutions that do not meet basic requirements without harming the interests of the students or do not receive accreditation within the allotted time;
- Establish minimum credit requirements for institutions awarding degrees, and specify such requirements;
- Advise the Central Government or any State Government: Provide advice to the Central Government or any State Government on any matter that they may refer to the Commission for consideration, as the case may be.

What are the issues with the Draft HECI bill 2018?

- Fear of Political interference: The structure of the commission is such that it will give executives more say in appointment and thus influencing the decision making regarding education.
- Vagueness: The bill is not clear on how shifting the grant-related functions to the ministry will result in less interference of the government in higher education.
- Fear of Over-regulating and micromanaging of universities: The HECI is likely to overregulate and micromanage colleges because of its mandate to improve academic standards with an emphasis on learning outcomes, evaluation of academic performance by institutions, and teacher training.
- Impact on autonomy: The bill proposes to give the Union government the authority to remove the HECI chairperson and vice-chairperson for reasons such as "moral turpitude" will once more limit the regulators' autonomy, which will have an effect on universities' autonomy.
- Institutions of National Importance: The proposed HECI Act does not apply to Institutions of National Importance (INIs) which also creates the exception and vagueness.

SAKSHAM ANGANWADI AND POSHAN 2.0

Priority: Medium



Primary Source: PIB

Prepp Prelims Booster: Saksham Anganwadi and Poshan 2.0

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health; Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes

Context:

- Recently, the "Saksham Anganwadi and Poshan 2.0" operational guidelines have been released by the Ministry of Women and Child Development.

- The plan has received the government of India's approval for execution throughout the 15th Finance Commission's time frame of 2021-22 to 2025-26.



Saksham Anganwadi and Poshan 2.0

- Saksham Anganwadi and Poshan 2.0 is an **Integrated Nutrition Support Program**.
- Through a strategic shift in nutrition content and delivery and the development of a converging eco-system.
- It aims to address the **problems of malnutrition in children, adolescent girls, pregnant women, and lactating mothers**.
- It also seeks to develop and promote practices that foster health, wellness, and immunity.
- Poshan 2.0 will concentrate on **maternal nutrition, infant and young child feeding** norms, treatment protocols for SAM/MAM, and wellness through AYUSH practices.
- It will be supported by the "Poshan Tracker," a new, reliable ICT centralized data system that is being connected with the RCH Portal (Anmol) of the MoHFW.

Funding

- It is a **Centrally-sponsored scheme** being implemented through the State Governments/ UT administrations based on a cost-sharing ratio between the Central Government and the State Government. Centre – State cost-sharing patterns of all components are given below

Category	General	Salary	Supplementary Nutrition
States/UTs with Legislature	60:40	25:75*	50:50
NE/Himalayan States (including J&K)	90:10	90:10	90:10
UT Without Legislature	100:0	100:0	100:0

Why are ongoing schemes reorganized under Poshan 2.0?

- to address various gaps and shortcomings in the ongoing nutrition program,
- to improve implementation
- to accelerate improvement in nutrition and child development outcomes

What is the vision of the scheme?

- The problematic issue of malnutrition among young children (under the age of six), adolescent females (14–18), and pregnant and nursing women is one that Poshan 2.0 aims to address.
- Poshan 2.0 is essential for India's development because more than two-thirds of its population are women and children.
- The primary focus** of this program's design is on achieving the **Sustainable Development Goals**.
- The SDGs, notably **SDG 2 on Zero Hunger** and **SDG 4 on Quality Education**, will benefit from Poshan 2.0.
- The Mission will concentrate on the essential significance of early childhood care and education, nutrition, and growth and development for children's well-being, growth, and development into healthy and successful people.

What are the objectives of the scheme?

- To support the country's efforts to grow its human capital;
- To address the problems associated with malnutrition;
- To promote nutrition education and healthy eating practices for long-term health and welfare; and
- To address nutritional deficiencies using important measures.
- To reduce the prevalence of stunting and anemia as well as wasting and underweight.

What are the important components of the scheme?

The existing scheme components have been reorganized under Poshan 2.0 into the primary verticals listed below:

- Nutrition Support** for POSHAN through **Supplementary Nutrition Programme (SNP)** for children of the age group of 06 months to 6 years, pregnant women, and lactating mothers (PWLM);
- and for Adolescent Girls in the age group of 14 to 18 years in Aspirational Districts and North Eastern Region (NER);
- Early Childhood Care and Education [3-6 years]** and early stimulation for (0-3 years);
- Anganwadi Infrastructure** including modern, upgraded Saksham Anganwadi; and
- Poshan Abhiyaan

SOCIAL SECURITY FOR UNORGANISED WORKERS

Priority: Medium



Primary Source: Social Security for Unorganised Workers

Prepp Prelims Booster: Social Security

Prepp Mains Booster: Welfare Schemes for Vulnerable Sections of the population by the Centre and States and the Performance of these Schemes

Context:

Recently, according to information provided to Rajya Sabha by the Ministry of Labour & Employment, more than 28 crore unorganised workers have registered on the e-Shram Portal, and the government is developing social security programmes specifically for these individuals.



What is Social Security?

- The International Labour Organization (ILO) describes social security as a comprehensive measure taken by the government intended to eliminate deprivation, ensure that each person has a basic minimum income, and shield each person from any uncertainties.
- There are various types of social security available in India. These are:
 - Old-age Pension
 - Gratuity
 - Insurance Cover
 - Health and medical insurance
 - Maternity benefits
 - Disability benefits
 - Provident fund benefits
 - Unemployment allowance

What are the constitutional provisions for social security?

Preamble

- The Preamble of the Indian Constitution calls for the construction of a socialist state with the goal of eradicating disparities in standard of living, status, and income.
- All Indian citizens are guaranteed equality of status and opportunity under the Indian constitution.

Fundamental Rights:

- **Article 21:** Right to life and personal liberty guarantees better life to every individual in society. Thus, advocates social security for Indians.

Directive Principles: The Directive Principles of State Policy list a number of provisions that attempt to provide social security for Indians, including the following:

- **Article 38:** The state is responsible for maintaining social order in order to advance public welfare.
- **Article 38 (1):** The State shall promote the welfare of the people by ensuring and preserving a social order, "social, economic and political," which shall be the basis of all institutions of national life.
- **Article 38 (2):** The state must work to reduce income irregularities and to try to eliminate disparities in status, resources, and opportunities, not only between individuals but also between groups of persons who live in various places or have different occupations.
- **Article 39:** It guarantees equal rights to all citizens to adequate means of subsistence, distribution of wealth and material resources to serve the common good, and prohibition of concentration of wealth and production means, among other things.
- In accordance with **Article 41**, important social security measures include securing the right to work, an education, and public support in the event of unemployment, old age, illness, disability, and other circumstances of unjustified need.
- **Article 42:** Providing for fair and humane working conditions and maternity leave.
- **Article 43:** Workers shall be paid a living wage.

Why is there a need for social security in India?

- **Informal Nature of Indian Economy:** According to the Periodic Labour Force Survey (PLFS), 419 million of the 465 million workers, or 90% of the workforce, labour in the unorganised sector.
- **Vulnerability of Informal workforce:** Due to their seasonal employment and lack of a formal employee-employer connection, informal labourers in rural and urban areas have been struck the worst by the Covid-19 Pandemic.
- **Poverty alleviation:** Industrial Accident or death may lead to the loss of breadwinner in the family. This may push the family toward poverty.
- Protecting the workers against the health related eventuality, occupational diseases, Industrial accidents, medical care and even from death.
- **Social Welfare:** Provision of pension, Insurance, and provident fund protect the present as well as future of the employee and his family. This leads to the Social welfare function of the government.
- **Improving Living Standard of workers:** Provision of Medical facilities, Pension, and Insurance, provident fund facilities in the form of social security measures lead to improving the living standard of the people and workers.
- **Protection against the eventualities:** A long and irreversible harm could be caused by the subsequent consequences of job loss, rising unemployment, debt, nutrition, health, and education of unorganized workers

and their families. Thus social security measures protect the workers and their families from it.

What is the Unorganized workforce?

- The workers in the economy who are not covered under any social security measures or programs, are considered as unorganised workforce.

Status of unorganised workforce in India:

- According to the PLFS report, 419 million of the 465 million employed people, or 90% of all workers, labour in the unorganised sector.

What are the initiatives taken by the Government for Unorganised workers?

- National Social Assistance Program (NSAP):** Under the NSAP, the Ministry of Rural Development has suggested raising the monthly pensions for the old, destitute, and disabled from the present amount of Rs 200 to Rs 800.
- Atal Pension Yojana:** The scheme was started in May 2015 with the aim of establishing a social security system that would include all Indians, particularly the poor, the disadvantaged, and unorganized sector employees.
- Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY):** It is an annual life insurance scheme that provides coverage for death from any cause.
- Pradhan Mantri Suraksha Bima Yojana (PMSBY):** It is an annual renewable accident insurance program that provides coverage for death or disability as a result of an accident.
- Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY):** It is the world's largest health insurance scheme fully financed by the government. It intends to give low-income individuals in the nation free access to health insurance coverage. About the poorest half of the population is eligible for this program.
- Pradhan Mantri Shram Yogi Maan-Dhan Yojana:** It is a Central Sector Scheme that the Ministry of Labour and Employment oversees and is carried out by the Life Insurance Corporation of India and Community Service Centers (CSCs).
- The Garib Kalyan Rojgar Abhiyaan:** The Scheme empowers and offers chances for livelihood to rural residents and returnee migrant workers who have returned to their home states as a result of the Covid-19-induced lockdown.

Way Forward

- The Code on Social Security should be used as a model for formalizing and standardising minimum floor-level requirements for unorganized workers.
- To address the worsening employment situation, which has been greatly exacerbated by the epidemic, and the growing inequalities in the labor market in the organized sector, a comprehensive plan and roadmap are needed.
- A nationwide database of unorganized employees needs to be created.

- To further reduce the impact of COVID-19, main emphasis areas include formalising the sector, raising its production, enhancing current livelihoods, creating new opportunities, and boosting social security measures.

LAUNCH A NATIONAL TRIBAL HEALTH MISSION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Tribes

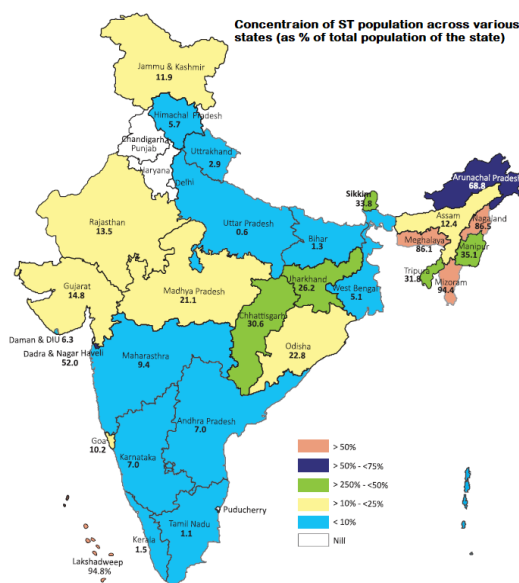
Prepp Mains Booster: Issues Relating to Development and Management of Social Sector/Services relating to Health. Welfare Schemes for Vulnerable Sections of the population by the Centre and States

Context:

On the occasion of International Day of the World's Indigenous Peoples on 9th August, the scholars have analysed the need for the launch of the National Tribal Health Mission for India.

Why is there a need for a National Tribal Health Mission?

- Coverage:** The more surprising discovery was that approximately five and a half crore, or 50%, of India's tribal population, reside outside the Scheduled Areas as a dispersed and marginalised minority. They are the weakest group.
- Inadequate progress:** As seen by the decrease in the under-five child death rate from 135 in 1988 in the National Family Health Survey (NFHS)-1 to 57 in 2014, indigenous people's health has undoubtedly improved over the past 25 years (NFHS-4). The under-five mortality rate among STs has increased relative to other groups, though.



India happen among the tribal people, despite their making up only 8.6% of the entire population.

- **The rising incidence rate of Non-Communicable Diseases:** While malnutrition, malaria, and mortality still affect tribal people, non-communicable diseases like diabetes and hypertension that are more difficult to treat are on the rise.
- **Mental health Issues are on the rise:** Mental health issues like depression and addiction that can lead to cancer and suicide are also on the rise. Adult tribal members' survival and health are at risk from this.
- **High dependence of tribals on Govt healthcare facilities and their issues:** Despite the fact that tribal populations mainly rely on government-run public health care institutions like hospitals and primary health centres, there is a 27 to 40 per cent shortage of these facilities and a 33 to 84 per cent shortage of doctors in tribal communities. Government health care for tribals is severely underfunded and understaffed. We found them to be ineffective and demoralised.
- **No participation of tribal people in health policy formulation:** The tribal people hardly ever participate in the design, planning, or provision of their healthcare, either locally or at the State or federal levels.

Who are Schedule Tribes?

- Article 342 of the Indian Constitution defines "Scheduled Tribes" as the "tribes or tribal communities or parts of or groups within tribal communities which the President of India may specify by public notification.
- Over 104 million tribal people live in India. Spread across 705 tribes, they account for 8.6% of the country's population.
- Tribal people have remained marginal geographically, socio-economically, politically, and therefore, in the national psyche. Health and healthcare in tribal areas remained unsolved problems.

Where are they located?

- The 104 million tribal people in India are largely concentrated in ten states and in the North-East.
- Almost 90% of the tribal population of the country lives in rural areas. There are 90 districts or 809 blocks with more than 50% tribal population and they account for nearly 45% of the ST population in the country.
- In other words, almost 55% of the tribal population lives outside these 809 tribal majority blocks. They too need attention.
- Tribal people rank lowest on various economic and educational indicators and on access to social amenities.
- The 705 scheduled tribes in the country can be divided into four major categories namely:
 - Tribal people living in Schedule V areas and in tribal-dominated blocks and districts,

- Tribal population in North-East India,
- Particularly vulnerable tribal groups,
- Tribal people living outside Scheduled areas.

What is the status of Health in tribal areas in India?

Child Mortality:

- The characteristics have improved, but there is still a difference between the tribals and the rest of India.
- Between 1988 and 2014, the child mortality rate among aboriginal peoples decreased by half, from 90 to 44.
- The death rate for children under five dropped from 135 in 1988 to 57 in 2014.
- In the remainder of India, there were about 39 under-five deaths in 2014.

Malnutrition:

- Compared to non-tribal groups, tribal children are 1.5 times more likely to be underweight (42%).
- From roughly 54 percent in 2005–2006 to about 40 percent in 2015–16, the proportion of underweight ST kids has decreased.

Disease Burden:

Communicable:

- 30% of malaria cases are tribal, who make up just 8.6% of the total population.
- In India, 18.6% of leprosy cases can be attributed to tribal groups.
- TB prevalence in the rest of India is 256 cases per 100,000, but it is nearly three times higher in tribals at 703 cases per 100,000.

Non communicable:

- Every fourth adult tribal member has hypertension.
- As compared to non-tribal men, who smoke tobacco at a rate of about 55 percent, almost 70 percent of tribal men in the 15- to 54-year-old age range do so.

Mental Health and Addictions:

- Almost 72% of the tribal men in the 15-54 years age group use tobacco as compared to 56% of non-tribal men. Slightly above half of ST men consume some form of alcohol at the national level. This is higher than the consumption among non-ST men (30%).

Infrastructure for Healthcare:

- Healthcare facilities in tribal communities were not present to the necessary extent in roughly five out of every ten



states with a significant tribal population.

- In tribal communities, there is a severe shortage of allopathic physicians and specialists working in primary care and community health centres.
- Accredited social health activists (ASHA), on the other hand, have shown to be a powerful tool for addressing health care issues in tribal regions.
- The main obstacle in the planning process is the lack of local data and community involvement in agenda setting.

What are the issues of Health in tribal areas?

- **Communicable diseases and malnutrition:** rise in the incidence of communicable diseases like TB, malaria and leprosy. Tribals are also facing the burden of malnutrition in the form of poor performance of stunting, wasting and underweight in comparison to Non-tribal people.
- **Non-communicable diseases including mental health:** Recent years have also seen the rise in the prevalence of noncommunicable diseases like hypertension, mental depression, cancer and others which were the results of lifestyle.
- Worse socio-economic determinants especially in housing, education, and sanitation. This has resulted in the poor performance of health programmes.

Issues of healthcare infrastructure:

- Lack of an adequate number of accessible healthcare facilities in tribal areas.
- Difficult natural conditions arising out of geographic terrains
- Poor quality and inappropriate health care services
- Constraints in the availability of health human resources at all levels
- Lack of Funds or allocated funds not utilized properly
- Lack of data for evaluation and monitoring of schemes and their impact
- Absence of appropriate political empowerment of tribal people from local level to the national level results in a Lack of participation of tribal people in planning, priority setting and execution.

WHAT NEXT ON DATA PROTECTION?

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Data Protection

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation; transparency & accountability and institutional and other measures.

Context:

- The government withdrew The Personal Data Protection Bill, 2019, and opted to draft a new bill in response to the recommendations made by the Joint Committee of Parliament (JCP) on the Bill. This new bill will fit into the overall legal framework.

The scope of the law

- A law can encourage regulatory clarity, which creates the opportunity for greater data flows and the expansion of the data processing industry.
- A law could restrict the state's agencies' use of intrusive data collection techniques, but it could also further geopolitical, strategic, or regulatory objectives.
- Similar to how individuals may benefit from prohibitions on harmful data processing, a poorly written regulation may actually legalize some intrusive behaviors.

Concerns

- **Privacy protection:** The emphasis on data privacy has consistently diminished starting with the 2018 version. Privacy protection was less and less regarded as the main goal of the Act and more and more as one of several.
- The Joint Parliamentary Committee (JPC) suggested switching from a law that only protected personal data to one that governed the entire data ecosystem.
- **Wider limitations:** It also advocated imposing a variety of wider limitations on social media and other organizations.
- In an effort to address a number of issues in the digital ecosystem, an already expansive statute was transformed into an omnibus Bill.
- **Lacked details:** Additionally, many of the provisions lacked sufficient detail. To balance the numerous competing interests at hand, more substantive and procedural detail should have been added to the clauses governing the state's processing of data, the regulation of non-personal data, and the regulation of social media, for instance.

Way forward

- It needs to incorporate a **risk-based approach** to data protection so that the regulatory focus is placed on resolving possible sources of harm.
- The law might permit **co-regulation and self-regulation** based on risk assessments (with the regulator acting as a backstop).
- These might lessen the responsibilities of compliance on organizations without considerably compromising the protection of rights.
- The current law's **accountability** provisions for the data protection regulator were inadequate.
- To ensure that the regulator effectively exercises its authority, the new Bill needs to include extra measures. These cover clauses pertaining to meetings, discussions, reporting, and other things.
- The government should spend on developing some administrative ability to carry out the law even as it is being developed so that when it is eventually passed, implementation can start right away. SEBI and PFRDA have previously used this method.

- Finally, it is critical that the creation of any new law be founded on thorough and meaningful consultations with all relevant parties.

REVIEW OF GUARDIANSHIP AND ADOPTION LAWS REPORT: PANEL MOOTS DISTRICT-LEVEL ADOPTION SURVEY

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Review of Guardianship and Adoption Laws

Prepp Mains Booster: Indian Constitution, Issues Related to vulnerable section - Children, Human Resource.

Context:

In a recent report titled "Review of Guardianship and Adoption Laws," the Parliamentary Standing Committee on Personnel, Public Grievances, and Law and Justice advocated district-level surveys to find orphaned and abandoned children.



What are the findings of the report?

- Only 2,430 children are available for adoption in India, but the number of parents wanting to adopt is rising quickly.
- As of December 2021, there were over 18,000 more prospective parents registered with the Child Adoption Resource Authority (CARA) than there were in 2017.
- As the central authority for the adoption of Indian children, the Ministry of Women & Child Development's CARA is tasked with overseeing and regulating both domestic and international adoptions.
- Only 2,430 of the 6,996 orphans, abandoned children, and children who had been turned in who were living in childcare facilities were deemed "legally free" for adoption by Child Welfare Committees.
- Only 2,430 children have been identified as legally available for adoption in India, with an estimated 3.1 crore orphans because of the failure to bring more children in need of care into the government's safety net.
- The waiting time for adoption has increased to three years from one year in the past five years.
- The total number of children adopted in 2021-2022 was only 3,175.

What recommendations have been made?

- Every district should host a monthly meeting under the direction of the District Magistrate to "guarantee that orphan and abandoned children found begging in streets are produced before the Child Welfare Committee and are made available for adoption at the earliest."
- Instead of pursuing more kids and placing them up for adoption, the goal should be to keep kids in the safety net. Considering how many adoptive parents are on the waiting list, such an activity should instead focus on locating those who are truly orphaned. Otherwise, children belonging to the poor will be taken from them.
- A paradigm shift is required that goes beyond children's "custodial" requirements, such as food and shelter, and instead focuses on their rights in order to connect them to nurturing families.
- Parental care for many children is not always the best. When parents abuse or neglect their own children, there is a sufficient safety net in place to ensure that the youngsters can receive the assistance they require. Adoptions were centralised in 2015 due to the malpractice that results from doing otherwise.

What are the regulations related to adoption in India?

- The legal procedure of adoption allows a child to be legally removed from his biological parents and adopted by a new set of parents.
- All of the rights, privileges, and obligations that come with being a biological child apply to adopted children.
- The guiding principles of adoption suggest that the child's best interests come first and that preference should be given to adopting an Indian citizen while giving "due respect to the principle of placement of the kid in his socio-cultural setting, to the extent possible."

Laws:

The Hindu Adoption and Maintenance Act (HAMA) 1956:

- A Hindu parent or guardian is permitted by the Act to place a child for adoption with another Hindu couple.
- The Act prohibits the adoption of an orphan, an abandoned child, or a child who has been turned over to a specialised adoption agency (SSA) or institution for child care.
- Adoptions that take place across borders are not covered by this Act.

Juvenile Justice (Care and Protection of Children) Act, 2015:

- This contains the Adoption Regulations of 2017 and the Juvenile Justice (Care and Protection of Children) Model Rules from 2016.
- Hindus, Buddhists, Jains, and Sikhs are permitted to adopt children under government regulations.
- A child who has been certified legally free for adoption by the Child Welfare Committee (CWC) may be adopted if they are an orphan, have been abandoned, or have been turned over. Only in accordance with the terms of the JJ Act of 2015.

Guardians and Ward Act (GWA) 1980:

- The Guardians and Ward Act (GWA) of 1980 was the only law that allowed non-Hindu people to be appointed as guardians of children from their community prior to the JJ Act.

What are the Issues Related to Child Adoption in India?

Child Trafficking and Manufactured orphans:

- Adoption has been suspected of a way pushing the child to human trafficking, which is defeating the primary purpose of adoption that welfare and restoring his or her right to family.
- For example - After a nun from a shelter admitted to selling four children, Mother Teresa's Missionaries of Charity in Ranchi came under scrutiny for having a "baby-selling racket."
- In addition, reports of child trafficking and unlawful adoption rackets emerged throughout the pandemic.

Narrow definition of family and exclusion of LGBTQ from Adoption:

- According to the Narrow mind stand of Government on not recognising the LGBTQ+ marriages, they are not eligible to apply for the process of adoption of the child. This has led to their exclusion from the adoption.

Complex Procedure for the adoption:

- Recently The Supreme Court has agreed to hear a plea that seeks to simplify the legal process involved in child adoption. which has brought the present complex adoption procedure to highlight. As a result merely 4,000 adoptions happen on a yearly basis in our country.

Ignorance to the Adoption of Disabile child:

- Annual trends show a decline in domestic adoptions of children with special needs (disability) every year. For example - only 40 disabled children were adopted between 2018 and 2019, which is around 1% of all the kids that were adopted that year.

Declining Statistics and Institutional Ignorance:

- The adoption procedure may take longer because there is a big gap between adoptable youngsters and potential parents.
- Only 2,317 children are available for adoption, despite the fact that more than 29,000 potential adoptive parents are eager to do so.

Increase in children being returned after adoption:

- Between 2017 and 2019, the Central Adoption Resource Authority (CARA) experienced an extraordinary spike in the number of adoptive parents bringing their adopted children back.
- The statistics show that 24% of all returned children had special needs, 60% of all children were girls, and many were older than six.

Way Forward

- The welfare of the kid and the restoration of his or her right to a family are the main goals of adoption.
- A shift from a parent-centric to a child-centric mindset is required in the adoption ecosystem.

- To foster an atmosphere of acceptance, progress, and well-being and to acknowledge children as equally important participants in the adoption process, it is necessary to adopt an inclusive strategy that prioritises the needs of a kid.
- In order to streamline the adoption process, it is necessary to carefully review all of the rules that govern it.

THE COMPETITION (AMENDMENT) BILL, 2022

Priority: Medium



Primary Source: The Indian Express

Prepp Prelims Booster: Competition Act

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- The Competition Amendment Bill 2022, which calls for several modifications to the Competition Act of 2002, was introduced by the government on August 6, 2022.
- It includes several changes to the Competition Bill, 2002, such as a larger framework for mergers and acquisitions and anti-competitive practices.

What are the proposed Amendments?

- **Merger and Acquisition:** Parties engaging in merger, acquisition, or amalgamation are currently only required to notify the Commission of a combination on the basis of "asset" or "turnover," according to Section 5.
- **Deal value:** A "deal value" is proposed to be added under the new Bill. Any transaction with a deal value greater than Rs. 2,000 crore and if either party has "significant business operations in India" must be reported to the Commission.
- The Commission is required to create regulations that specify the criteria for determining whether a company has "substantial business operations in India."
- The Commission's review system will be strengthened by this reform, especially in the digital and infrastructure sectors, where the bulk of transactions were not previously notified because their asset or turnover values fell below the jurisdictional requirements.
- **Combination:** Business entities are required to notify the Commission when they are prepared to conduct a combination.
- The combination may be approved or rejected by the Commission, with consideration for the likely significant harm to competition. Prior to being automatically accepted, the Commission had 210 days to approve the combination.
- The new Bill aims to cut the schedule from 210 working days to only 150 working days, with a 30-day extension grace period. Combinations will be cleared more quickly as a result, and pre-filing conversations with the Commission will become more significant.
- **Settlements' and 'commitments' mechanisms:** A framework for commitments and settlements for incidents

involving vertical agreements and abuse of dominance is proposed by the new amendment.

- The parties may request for a "commitment" in cases of vertical agreements and abuse of power prior to the Director General's (DG) submission of the report.
- Before the Commission makes a decision, "Settlement" will be taken into account after the report is turned in.
- The amendment states that after hearing from all parties involved in the matter, the Commission's decision regarding commitment or settlement **will not be subject to review**. The Commission will release rules pertaining to procedural matters.
- **Open Market transactions:** The current amendment bill also intends to exempt open market purchases and stock market transactions from the necessity of notifying the Commission in advance, much like the European Union merger legislation.
- This is subject to the condition that the acquirer does not exercise voting or ownership rights prior to the transaction's approval and subsequent notification to the Commission.
- **Leniency Plus:** The amendment bill contains a clause referred to as "Leniency Plus" that permits the commission to waive additional penalties from an applicant who discloses the existence of another cartel in an unrelated market, provided that the information allows the Commission to form a prima facie opinion about the existence of the cartel.
- **Appointment of Director General:** Amendments give Commission additional control in appointing the DG rather than the Central government. The DG has the authority to carry out investigations, including raids, in accordance with the Bill.
- Only information submitted within three years of the cause of action's occurrence will be taken into consideration by the Commission.
- **Penalties:** Five crores will be fined for any fraudulent information submitted, and ten crores will be fined for disregarding the Commission's instructions.
- The Commission will also establish standards for the severity of punishment for certain competition infractions.
- The party must pay 25% of the penalty sum in order for the National Company Law Tribunal (NCLT) to hear an appeal against the Commission's order.

Combination : Any acquisition, merger or amalgamation that meets the following jurisdictional thresholds, as provided in Section 5 of the Competition Act, 2002 ("Act"), is a "combination" for the purpose of the Act. The thresholds relate to the assets and turnover of the parties to the combination, i.e., target enterprise and acquirer (or acquirer group) / merging parties (or the group to which merged entity would belong).

Open-market transaction : The purchasing or selling of shares in a corporation by insiders is referred to as an open-market transaction.

What obstacles do open market purchases present to combined parties?

- As a result of the combined parties' inability to **postpone the completion of open market transactions**, there have been numerous instances of gun jumping.
- Many of them contend that in order to avoid changes in stock value and total consideration, acquisitions involving the open market purchase of target shares must be executed rapidly. **Waiting for the Commission's approval** could make the purchase costly.

What is the need for the amendment?

- To manage specific features of the **new-age market and improve** its operation.
- With the rapidly changing market dynamics due to **advancements in technology** and the increasing importance of factors other than price, amendments became imperative to promote and sustain market competition.
- The Bill suggests extending the scope of the law's **prohibition on anti-competitive agreements** to include contemporary marketing agreements, particularly cartels that use a **hub-and-spoke structure**.
- The regulator's **checks and balances** will be completely reliable as a result of the adjustment to the definition of anti-competitive agreements.
- The "negotiated settlements and pledges" clause will help in **avoiding, long-drawn proceedings, cut down litigation, and provide soft-exit windows** for uninformed or ill-informed individuals and businesses.
- The Bill suggests allowing each of the six board members to make their own decisions. Currently, regulations mandate that each matter be decided by a panel of at least three members. It is anticipated that letting single members decide on matters will help resolve them more quickly.

Way forward:

- These, however, rely a lot on regulations that the Commission will announce later. The proposals will be influenced by these regulations.
- The government must also acknowledge that regulations need to be updated frequently due to the ongoing changes in market dynamics.

What is the Competition Act, 2002?

- The Competition Act was passed in 2002, and the Competition (Amendment) Act of 2007 revised it. It is based on the principle of modern competition legislation.
 - The Act outlaws anti-competitive agreements, enterprise abuse of dominant position, and mergers and acquisitions (acquisition, control, and M&A) that have or are likely to have a significant adverse effect on competition in India.
 - The Competition Commission of India and the Competition Appellate Tribunal have been constituted under the provisions of the Amendment Act.

- In 2017, the Competition Appellate Tribunal (COMPAT) was superseded by the National Company Law Appellate Tribunal (NCLAT).

Competition Commission of India (CCI)

In order to administer, implement, and enforce the **Competition Act, 2002**, the Government of India established the **Competition Commission of India (CCI)** in March 2009.

A Chairperson and six Members of CCI are appointed by the Central Government.

Objectives

- Eliminate practices having an adverse effect on competition
- Promote and sustain competition
- Protect the interests of consumers
- Ensure freedom of trade in the markets of India
- Establish a robust competitive environment through:
 - Proactive interaction with all parties, including customers, business partners, the government, and international organisations.
 - Being a highly competent organisation with a focus on knowledge.
 - Professionalism, openness, tenacity, and discernment in enforcing laws.

ONORC SCHEME: GRAINS OF TRANSFORMATION

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: ONORC

Prepp Mains Booster: - Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- According to the Ministry of Consumer Affairs, Food, and Public Distribution, since "One Nation One Ration Card" (ONORC) went into effect in August 2019, there have been roughly 77.88 crore portable transactions.
- This comprises intra-state and interstate transactions that distribute foodgrains to beneficiaries under the National Food Security Act (NFSA) and the Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY).
- 69 crore of these transactions were documented during the Covid-19 period starting in April 2020.

What is One Nation One Ration Card Scheme (ONORC)?

- Under the National Food Security Act 2013, a technology-driven plan is being put into place to allow ration cards to be transferred nationally.
- Owners of ration cards are permitted to purchase up to 5 kg of rice, 2/kg of wheat, and 1/kg of coarse grains per month. This was required under the NFSA 2013.

Why was the ONORC Scheme needed?

- In India, 8Cr and 6Cr respectively migrate within each state on a seasonal basis.
- These workers used to lose their eligibility for grain subsidies when they moved to cities to work since they were reliant on the fair price shop (FPS) back home.
- Additionally, if these migrants were registered at an FPS in a city, their relatives were compelled to purchase food at prices far greater than those in their own country.

Beneficiary:

- The scheme's participants are ration card holders who are qualified to purchase food items from fair-priced stores (FPS).
- For instance, this ground-breaking programme is being used by millions of workers, daily wage earners, domestic workers, and the urban poor, including rag pickers and street dwellers.

Working:

- Through their current ration cards that have biometric/Aadhaar identification, these beneficiaries are able to claim full or partial foodgrains from any FPS in the nation under ONORC.

Take-home ration:

- If they have any relatives back home, the programme also enables them to claim the remaining food grains on the same ration card.
- Using information from recipients' ration cards, Aadhaar numbers, and electronic Points of Sale, ONORC is powered by technology (ePoS).
- A beneficiary is recognised by the system via biometric authentication on FPS ePoS devices.

Push for digitization:

- As a result of the PM's advocacy for a digital India, all ration cards are currently digital. Additionally, ePoS devices are present in more than 53, 000 (99%) FPSs.

What is the One-Nation-One-Ration-Card (ONORC) program's significance?

- **Mass- wellbeing:** It is a high-impact welfare programme that helps and feeds the less fortunate. With ONORC, it is simple for the worker's family to get benefits.
- **To stimulate the economy:** ONORC enables migrants to purchase steeply subsidised grain in cities and use the money saved to buy other goods.
- **Cost-savings for migrant workers:** In the past, when migrant workers moved to cities to work, they lost their eligibility for grain subsidies because they were reliant on the FPS in their home countries.
- **SDG attainment:** It will also assist in achieving SDG 2's aim of eradicating hunger by 2030.
- **Increased Efficiency:** By seeding Aadhar with ration cards, duplicate ration cards have been eliminated.

- **Empowerment of the beneficiary:** Under ONORC, the beneficiary has the option to pick their own dealer. In instances of fraud or misallocation, the beneficiary may immediately switch to another FPS shop.
- **Eliminate the neighbourhood ration shop monopoly:** For many years, recipients were forced to visit a specific FPS because of the neighbourhood ration shop's monopoly. Shop owners have a captive market and no reason to keep the quality high.
- **Impacts:** The drive for competition among lakhs of FPSs will assist to enhance business culture generally, enabling Indians to obtain better-quality goods and services.

What were the reasons behind the success of the ONORC scheme?

- Digital India has been promoted by the Prime Minister. It has significantly aided the nation. As a result, all ration cards have been converted to digital format, and more than 5.3 lakh (99%) of all FPSs in India have electronic point of sale systems installed.
- To spread awareness of the ONORC programme in India, various ministries and departments coordinated their efforts for strategic outreach and communication. For instance,
 - Using FM and community radio stations, the government launched a radio-based campaign in Hindi and 10 other regional languages.
 - In order to convey the PM's message to migrant workers who ride trains, announcements and displays were set up in train stations and on public transportation.

What should be done to further enhance the ONORC Scheme?

- To incorporate additional beneficiaries under the NFSA, the Department of Food and Public Distribution created a "Common Registration Facility" on a test basis for 11 states/UTs.
- The poorest of the poor and the most marginalised groups in Indian society should also benefit from any public policy decisions.

INTERNATIONAL RELATIONS

MINERAL SECURITY PARTNERSHIP

Priority: High



Primary Source: The Indian Express

Prepp Prelims Booster: Minerals Security Partnership (MSP)

Prepp Mains Booster: Distribution of Key Natural Resources ; International Treaties & Agreements, Groupings & Agreements Involving India and/or Affecting India's Interests

Context:

Recently, India has expressed concern about not being included in the ambitious new US-led cooperation of 11 countries known as the Minerals Security Partnership (MSP), which aims to safeguard supply chains of essential minerals and lessen reliance on China.



What are Critical Minerals?

- Critical minerals are mineral resources with high economic vulnerability and high global supply chain risk, although there is no universal definition for them. These minerals serve as the foundation for many crucial modern technologies.
- They fall under the category of rare earth (RE) minerals, which include 16 elements and are further divided into light RE elements (LREE) and heavy RE elements (HREE). The major critical minerals are Graphite, Cobalt and Lithium.

What important role do crucial minerals play?

- They are essential for producing high-end electronics and semiconductors, as well as the Electric Vehicles (EV) batteries.
- These minerals are essential for the communications, aerospace, and defence industries since they are also used to make fighter jets, drones, radio sets, and other essential equipment.

Which countries are the leading producers of critical minerals?

- According to an International Energy Agency (IEA) report, Chile, Indonesia, Congo, China, Australia, and South Africa are the world's top producers of critical minerals.
- China is the global leader in the processing of important minerals. Others include Chile, Japan, and Indonesia.
- In the coming decades, there will likely be a large increase in demand for critical minerals, which are necessary for renewable energy and other technologies.
- There will be a global gap between supply and demand for numerous essential minerals, particularly in cobalt and lithium by the end of this decade.

What is the Minerals Security Partnership?

- It is an ambitious new US-led partnership to secure supply chains of critical minerals, aimed at reducing dependency on China.
- Its formal announcement was made in June 2022, during the world's largest mining event- The prospectors and Developers Association of Canada (PDAC) convention held in Toronto, Canada.
- 11 Partners countries of MSP:** Australia, Canada, France, Finland, Germany, Japan, South Korea, Sweden, United Kingdom, United States, and European Commission.
- Objective of the MSP:** To ensure that critical minerals are produced, processed, and recycled in a manner that supports the ability of countries to realize the full economic development benefit of their geological endowments.
- It will help catalyze investment from governments and the private sector for strategic opportunities —across a full value chain that adheres to the highest environmental, social, and governance standards.
- Focus of MSP:** It will be on the supply chains of minerals such as Cobalt, Nickel, Lithium and also the 17 "rare earth" minerals.
- It will help catalyze investment from governments and the private sector for strategic opportunities across the full value chain that adhere to the highest environmental, social, and governance standards.

Significance of MSP

- Critical minerals are essential to drive development needs, as nations throughout the world have step up their transition to clean energy and digital economy.
- Any supply shock can seriously jeopardize the economy and strategic independence of a nation that is too reliant on outside sources to obtain essential minerals.

Why didn't India find a place in MSP?

- Industry watchers say that one reason India for not finding a place in the grouping is because the country does not have much-needed expertise in extracting and processing of critical minerals.
- In the MSP group, countries like Canada and Australia have reserves and also technology to extract them and countries like Japan have the technology to process them.

Why Exclusion from MSP is a Concern for India?

- Supply of critical minerals is key to India's growth strategy which is powered by an ambitious shift in the mobility space through the conversion of a large part of public and private transport to electric vehicles.

- This, alongside a concerted push for domestic electronics manufacturing, underlines the need to secure the supply of critical minerals.

India's dependency on other countries

- Some REs are available in India such as Cerium, Lanthanum, Neodymium, Praseodymium, and Samarium, while others such as Dysprosium, Terbium, Europium that are classified as HREE are not available in Indian deposits in extractable quantities.
- India relies heavily on China for HREE, which is one of the leading producers with an estimated 70% of the global production.
- As a result, India has a lot on stake. It would require supply support for such elements to meet its domestic demand, which is going to increase in the coming years.

What has India done regarding Critical Minerals?

- Lithium Agreement:** In 2020, India's newly floated state-owned company has signed an agreement with an Argentinian firm to jointly prospect lithium in the South American country, which has the third largest reserves of lithium in the world.
- India-Australia Critical Minerals Investment Partnership:** Both countries have decided to strengthen their partnership in the field of projects and supply chains for critical minerals.
- Australia has the required resources to fulfill India's ambitions to meet the growing demand for critical minerals for its space and defense industries and manufacture of solar panels, batteries, and electric vehicles.

GUILLERMO RIOS IS THE NEW LEADER OF UNMOGIP

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: UNMOGIP

Prepp Mains Booster: Important International Institutions, Agencies, and fora- their structure, and mandate.

Context:

Rear Admiral Guillermo Pablo Rios of Argentina has been named the Head of Mission and Chief Military Observer for the United Nations Military Observer Group in India and Pakistan (UNMOGIP), the office of the UN Secretary-General has announced. Antonio Guterres is the Secretary-General of the United Nations (UN).

Background:

- UNMOGIP was established by Security Council Resolution 39 of January 1948 which set up the UN Commission for India and Pakistan (UNCIP).

- In Jammu and Kashmir, the Ceasefire Line was created, and the Karachi Agreement of July 1949 strengthened the role of military observers at the UN level and authorized supervision of the Ceasefire Line.

What is India's stand on UNMOGIP?

- Officially, India **asserts that the Simla Agreement of 1972**, which established the Line of Control or LoC and, with "minimal deviations," followed the previous Ceasefire Line, **"overtook" the UNMOGIP's responsibilities.**
- Pakistan**, however, **rejected the Indian defense** and persisted in asking the UNMOGIP for assistance.
- Due to these differing approaches, Pakistan continues to protest to the UNMOGIP about alleged Indian ceasefire violations, although India hasn't formally complained to the UNMOGIP about Pakistan since 1972.
- The UN has maintained that the **UNMOGIP could only be dissolved with a decision from the UN Security Council** due to the disagreement between India and Pakistan.

Shimla Agreement

- Simla Agreement was much more than a peace treaty that sought to undo the effects of the 1971 war when it was signed by Prime Minister Indira Gandhi and President Zulfikar Ali Bhutto of Pakistan on July 2, 1972. (i.e. to bring about withdrawals of troops and exchange of PoWs).
- It was a thorough blueprint for fostering positive neighborly ties between India and Pakistan.
- The Simla Agreement committed both nations to renounce the hostility and contention that had strained their ties in the past and to work together to forge a lasting relationship of friendship and cooperation.

Significance: Since the Simla Agreement of 1972, India has adopted a non-recognition policy towards third parties in their bilateral exchanges with Pakistan over the question regarding the state of Jammu and Kashmir.

- The Pakistani military has maintained in complaining to UNMOGIP about alleged ceasefire violations. Since January 1972, the military authorities of India have not complained about the UN observers' Though India have continued to give UNMOGIP the security, transportation, and other services that are required.

UN GUIDELINES FOR DISPLACED CHILDREN

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster: IOM, UNICEF

Prepp Mains Booster: Important International institutions, agencies and for- their structure, mandate

Context:

- The International Organization for Migration (IOM), Georgetown University, the United Nations University, and the United Nations Children's Fund (UNICEF) on July 25 released new guidelines to provide the **first-ever global policy framework** that will help protect, include, and empower children on the move in the context of climate change.

PRINCIPLE 3

Be accountable to children for climate action.



What are the UN Guidelines for Displaced Children?

- Nine guiding principles that address the particular vulnerabilities of children who have been displaced in the Context of Climate Change. **The criteria apply to both national and international migration.**
- The following are the Guiding Principles, which were created to protect the rights and welfare of children when they move in the context of climate change:
 - Principle 1: Rights-based approach
 - Principle 2: Best interests of the child
 - Principle 3: Accountability
 - Principle 4: Awareness and participation in decision-making
 - Principle 5: Family unity
 - Principle 6: Protection, safety and security
 - Principle 7: Access to education, health care and social services
 - Principle 8: Non-discrimination
 - Principle 9: Nationality

What is the significance of these guidelines?

- In order to meet the needs and rights of **children moving in the context of climate change**, there is currently no worldwide policy framework.
- Where there are child-related migration policies, they typically ignore the needs of children and fail to take climate and environmental issues into account.
- In 2020 alone, weather-related shocks resulted in the displacement of about 10 million children, according to UN statistics.
- The **goal is to safeguard and empower kids** who have to leave their homes because of **climatic situations.**

- Every day, increasing numbers of children and families are being forced out of their homes as a result of failing crops, hurricanes, rising sea levels, and wildfires.
- The guiding principles serve as a framework on which national and municipal authorities, **international organisations, and civil society organisations can create laws to defend children's rights.**
- They are founded on both current international law and operational frameworks or guidelines that have been created by a range of stakeholders.
- The Principles are not new international legal duties because they are taken from the **Convention on the Rights of the Child.**

NEW START TREATY: RUSSIA SUSPENDS ONSITE INSPECTIONS OF US

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: START TREATY

Prepp Mains Booster: Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Context:

Recently, Russia temporarily suspended on-site inspections of its facilities to the United States of America (US) that are subject to inspections under the New START treaty.



What is the New START Treaty?

- It is a nuclear arms reduction treaty between the United States and Russia. Its formal name is Measures for the Further Reduction and Limitation of Strategic Offensive Arms.
- It was signed in 2010 in Prague, Czech Republic, and entered into force in 2011 after ratification. Its duration was for 10 years i.e. till 2021, but it was extended till 2026 by five more years.

- It had replaced the Treaty of Moscow (SORT), which was to expire in 2012. It follows the START I treaty, which expired in December 2009.

What is the objective of the New START Treaty?

- It caps the number of strategic nuclear warheads that the United States and Russia can deploy, and also the deployment of land- and submarine-based missiles and bombers to deliver them.
- It continues the bipartisan process of verifiably reducing US and Russian strategic arms by limiting both sides to 1,550 operational nuclear warheads and 700 strategic launchers.

What are the various treaties signed between the US and Russia?

Strategic Arms Limitation Talks-1(SALT): They were negotiations between the US and then Union of Soviet Socialist Republics (USSR) aimed at curtailing the manufacture of strategic missiles capable of carrying nuclear weapons. It began in 1969. Under these talks, both sides pledged not to construct new Intercontinental Ballistic Missile (ICBM) silos, not to increase the size of existing ICBM silos, and capped the number of Submarine-Launched Ballistic Missile (SLBM) launch tubes and SLBM-carrying submarines.

Strategic Arms Reduction Treaty-1 (START): It was a bilateral treaty between the USSR and the US on the limitation and reduction of strategic offensive arms. It was signed in 1991 and entered into force in 1994. It mandated both parties to destroy excess delivery vehicles which were verified using an intrusive verification regime that involved on-site inspections, regular exchange of information (including telemetry), and national technical means (i.e., satellites).

Strategic Arms Reduction Treaty-2 (START II): It was signed in 1993. It banned the use of multiple independently targetable reentry vehicles (MIRVs) on intercontinental ballistic missiles (ICBMs). It called for reducing deployed strategic arsenals to 3,000-3,500 warheads and banned the deployment of destabilising multiple-warhead land-based missiles. START II never entered into effect. Instead, SORT came into effect, which reduced the strategic warheads count per country to 1,700–2,200.

Strategic Offensive Reductions Treaty (SORT): It was signed in 2004. It is also known as the Treaty of Moscow. Under it, the US and Russia had agreed to limit their nuclear arsenal to between 1,700 and 2,200 operationally deployed warheads each.

INDIA SLAMS OIC FOR ITS J&K STATEMENT: REEKS OF BIGOTRY

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Organization of Islamic Cooperation

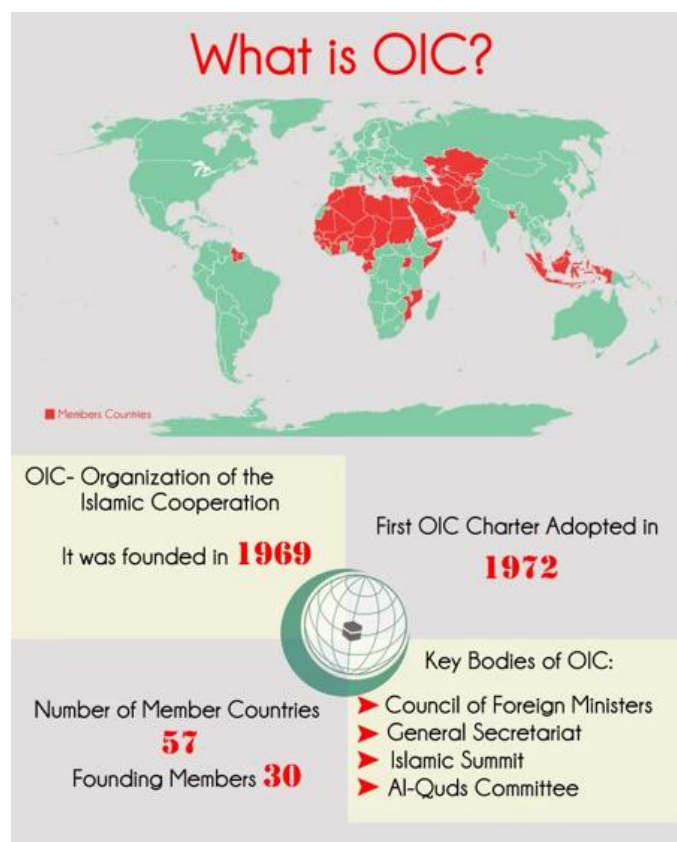
Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- On August 6, India criticized the Organization of Islamic Cooperation (OIC) and said its most recent statement over Jammu and Kashmir "reeks of prejudice."
- The OIC urged the international community to act to settle the "conflict" in accordance with the pertinent UN resolutions on the third anniversary of the revocation of Jammu and Kashmir's special status and its division.

What is the Organisation of Islamic Cooperation?

- With 57 member states, the OIC is the second largest international organization after the United Nations.
- It is the Muslim world's unified voice.
- In the spirit of promoting international peace and harmony among all peoples, it strives to promote and protect the interests of the Muslim world.
- Following an incident of arson at the Al-Aqsa Mosque in Jerusalem by a 28-year-old Australian in 1969, the Organisation of the Islamic Conference was created by the First Islamic Summit Conference in Morocco in September 1969 to marshal the Islamic world.
- Jeddah, Saudi Arabia is its headquarters.



Key Bodies in OIC:

Islamic Summit

- The OIC's top authority is the Islamic Summit, which brings together kings, heads of state, and governments from member states.
- It meets every three years to deliberate, make policy choices, provide direction on matters relating to the achievement of goals, and consider other topics that concern Member States and the Ummah.

Council of Foreign Ministers:

- The Council of Foreign Ministers meets once a year and considers the means for the implementation of the OIC's general policy by adopting decisions and resolutions on matters of common interest in the implementation of the OIC's objectives and general policy, and reviewing progress in the implementation of decisions and resolutions adopted at previous Islamic summits and Councils of Foreign Ministers.
- The CFM considers and approves the programme

General Secretariat

- The General Secretariat is the OIC's executive organ, tasked with putting OIC decision-making bodies' decisions into action.
- The Secretary-General is in charge of it.
- The General Secretariat is made up of numerous departments that help the OIC run smoothly on a daily basis.

What are recent developments in the India-OIC relationship?

- India has been confident in riding over any declaration by the grouping after forming tight ties with major members such as the UAE and Saudi Arabia.
- India has repeatedly stated that J&K is a "integral part of India" and that the problem is "strictly internal to India," and that the OIC has no jurisdiction over the region.
- India made its first visit as a "guest of honour" at the OIC Foreign Ministers' Meeting in 2019.
- Bangladesh and the Maldives, two of India's closest neighbours, are members of the OIC. Both countries privately concede that they do not want their bilateral relations with India to be complicated over Kashmir.

India has stayed out for a variety of reasons:

- It did not wish to be a part of a religious organisation.
- There was a concern that a grouping would put pressure on individual member states to improve bilateral relations, particularly on matters like Kashmir.
- Bangladesh, which hosted the 45th session of the Foreign Ministers' Summit in 2018, proposed that India, which is home to more than 10% of the world's Muslims, be granted Observer status, but Pakistan objected.

Article 370:

- Article 370, which was added to the Constitution on October 17, 1949, exempts J&K from the Indian Constitution (with the exception of Article 1 and Article

370) and gives the state the right to create its own Constitution.

- For extending a central law on subjects included in the Instrument of Accession (IoA), mere "consultation" with the state government is needed. But for extending it to other matters, "concurrence" of the state government is mandatory.
- This special status was repealed in 2019 by a presidential order known as "The Constitution (Application to Jammu and Kashmir) Order, 2019."
- This order superseded the previous "Constitution (Application to Jammu and Kashmir) Order, 1954."
- The 2019 order extended all provisions of the Indian Constitution to Jammu and Kashmir as well.
- However, the inoperative Article 370 remains in the text of the Indian Constitution.
- Furthermore, the Jammu and Kashmir Reorganisation Act, 2019, divided the former state of Jammu and Kashmir into two separate union territories, namely Jammu & Kashmir and Ladakh.

INDIA CALLS FOR COMPREHENSIVE REFORM OF UNITED NATIONS' STRUCTURE

Priority: Low



Primary Source: All India Radio News

Prepp Prelims Booster: UNSC

Prepp Mains Booster: Important International institutions, agencies, and fora- their structure, and mandate.

Context:

- Addressing the plenary session of the Moscow Conference on International Security-2022 virtually the Defense Minister said that without democratic decision-making and thorough structural reforms, the UN risked losing its effectiveness and relevance over time.



United Nations Security Council

- According to the UN Charter, the Security Council is in charge of upholding **global peace and security**.

- There are **15 Council members**. China, France, the Russian Federation, the United Kingdom, and the United States are five permanent members.
- The General Assembly elects the other 10 for **two-year terms**. The Council needs nine yes votes to pass a decision.
- Security Council decisions are formal expressions of the will of the Council. In contrast to the decisions taken by the General Assembly, those taken by the **Security Council are legally binding**.
- As Article 25 of the UN Charter states, "The Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter."
- If a permanent member does not fully agree with a proposed resolution but does not wish to cast a veto, it has been a long-standing practice that it may choose to abstain (i.e., decline to vote for or against a proposal), thus allowing the resolution to be adopted if it obtains the required number of nine favorable votes.

How will a permanent seat in the UNSC benefit India?

- A permanent seat on the UNSC would advance some of India's most important objectives while also giving it tremendous power and **influence in world politics**.
- Even while many Indians living abroad have frequently found themselves haplessly caught in the crossfire, from Libya to Yemen, it would enable India to have a **greater influence on global choices**.
- Moreover, if India is successful in obtaining a veto, it will have an unmatched **advantage in negotiations with other countries**.

Way Forward

- India has the opportunity to change its trajectory on each of these fronts now that it is a duly elected member of the UNSC. India should attempt to take a more active part in delicate political situations throughout the world, adopting wise and well-thought-out policy positions before the UNSC on concerns of global security.

G4 : The G4 is a group of four countries that supports one another's bids for permanent seats on the UN Security Council. They are Brazil, Germany, India, and Japan.

Coffee Club or United for Consensus: The informal "coffee club," which has around 40 members, has played a key role in delaying UN Security Council reforms. Middle-sized governments make up the majority of the club's members;

- They oppose larger regional powers obtaining permanent seats on the UN Security Council.
- Italy, Spain, Australia, Canada, South Korea, Argentina, and Pakistan are the club's main proponents. Pakistan opposes India's application for permanent membership in the Security Council, while Italy and Spain reject Germany's.
- In a similar vein, Australia opposes Japan's bid while Argentina opposes Brazil's.
- South Korea and Canada are opposed to developing nations at the UN having more influence than them while

frequently depending on their aid.

INDIA, BANGLADESH, PAKISTAN: WHAT EAST CAN TEACH WEST

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: India and its neighbourhood-relations

Prepp Mains Booster: India and its neighbourhood-relations.

Context:

Senior Fellow C. Raja Mohan from the Asia Society Policy Institute in Delhi recently wrote in his article that if we can normalize the eastern border with Bangladesh, where the causes and effects of Partition were much more complicated, it shouldn't be too difficult to accomplish the same in India's western border with Pakistan.

How Indo-Bangladesh relations have spanned in the recent past?

One of the biggest achievements of recent foreign policies for both Delhi and Dhaka has been the **reinvention of the bilateral relationship**.

- When Sheikh Hasina visited India in 2010 after becoming Bangladesh's second prime minister in 2009, the process of mending relations got underway.
- The majority of the bilateral issues, such as border resolution, river water sharing, cross-border terrorism, market access for Bangladeshi exports, and connectivity, were the focus of an unprecedented effort by Prime Minister Manmohan Singh and Hasina.
- **Resolution of border dispute:** The **Permanent Court of Arbitration** in The Hague's decision to resolve the maritime border dispute between Delhi and Dhaka was also recognized by PM Modi.
- Delhi acted swiftly to accept the judgment, ending another protracted territory issue in bilateral relations.
- While the unresolved land and marine territorial disputes are one of India's major issues with Pakistan, their resolution with Bangladesh changed the atmosphere of the two countries' bilateral relations.
- **Cooperation on cross-border terrorism:** The two national security establishments' cooperation on cross-border terrorism, which started a few years earlier, helped create **much-needed political confidence**.
- **Market:** The gradual opening of the Indian market to Bangladeshi products and Dhaka's readiness to permit the transit of Indian commodities to India's northeastern regions strengthened bilateral ties.
- Bilateral ties have expanded quickly during the past few years. On the connectivity front, there has been significant progress made on reopening the border between India and Pakistan, which was entirely closed after their conflict in 1965.

- **Transport:** The eastern subcontinent's severed connectivity is being repaired thanks to transboundary bus services, reopened railway lines, and revitalized rivers.
- **Trade:** The volume of bilateral trade increased dramatically in recent years, reaching **around \$16 billion in 2017**. One of India's major export destinations in Bangladesh.
- In the meantime, Bangladesh has significantly surpassed Pakistan in South Asia and has one of the world's fastest-growing economies.
- **Interconnected power grids:** The development of interconnected power grids between India and Bangladesh have made it easier for Dhaka to acquire electricity from that country.
- It now imports 1200 MW of power from India, with plans to add another 1500 MW.
- **Eradication of the Northeastern's geographical isolation:** Today, the northeastern states have realized the enormous advantages of closer economic ties with



Bangladesh, none of which are more significant than the eradication of the region's geographical isolation.

- Today, **Assam is leading** the charge in formulating a more audacious plan for **strengthening trade links with Bangladesh**.
- **Security:** The extensive relationship between India and Bangladesh has greatly reduced India's security concerns and created the framework for stability and development in the eastern subcontinent.
- **Cooperative Strategy:** Bangladesh has been able to concentrate on its economic progress and move up the regional and global food chain by eschewing the urge to counterbalance India and adopting a cooperative strategy.
- India tried to make similar moves with Pakistan, but Islamabad and Rawalpindi refused to cooperate with even the most basic of trade, connectivity, or transnational energy cooperation plans.
- India has been forced to accept the leadership of Pakistan's free will decisions.

Challenges:

- Delhi should concentrate on solidifying the "golden moment" in the east rather than lamenting the sad

dynamic on the western frontier and Pakistan's resistance to letting the SAARC become a vehicle for regional collaboration.

- They include, among other things, defending the rights of minorities, sharing the waters of more than 50 rivers, encouraging cross-border investments, maintaining one of the world's longest borders, facilitating trade and preventing illegal immigration, thwarting forces of religious extremism, promoting maritime security in the Bay of Bengal, enhancing defense cooperation, and reducing climate change in the region as a whole.

Way Forward

- Problem-solving and relationship maintenance must always be ongoing efforts as opposed to one-off events.
- Delhi and Dhaka cannot ignore one another or allow domestic issues to trump the logic of bilateral collaboration.
- Delhi and Dhaka have a unique opportunity to raise the bar for their bilateral partnership as they celebrate their respective countries' 75th years of independence.

Why Indo-Pak relations have not normalized even after 75 years of partition?

- The failure of successive Indian and Pakistani leadership generations to put an end to disputes
- the continuance of cross-border terrorism,
- the war over Kashmir,
- the militarization of the border,
- the lack of connectivity,
- the poor state of trade relations, and
- the absence of official intergovernmental dialogue.

CHINA ASKS INDIA TO STOP 'DISTURBING' EXCHANGES WITH SRI LANKA

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Minorities

Prepp Mains Booster: India and its Neighborhood Relations

Context:

- China forcefully reacted to Sri Lanka's request to postpone the arrival of a tracking vessel, which was scheduled for August 11 and had raised India's concerns, by calling India's resistance to the visit "unjustified" and urging New Delhi to "not disturb normal exchanges."
- The Sri Lankan Foreign Ministry earlier requested China to postpone the arrival of the military ship Yuan Wang 5 at its southern port of Hambantota in response to India's objections.
- The Chinese vessel **Yuan Wang 5** is travelling from the Chinese port of Jiangyin and is scheduled to arrive at the Chinese-run port of Hambantota in Sri Lanka on August 11.



What is the background of the issue?

- The Chinese military vessel Yuan Wang 5 is travelling from the Chinese port of Jiangyin and is scheduled to arrive at the Chinese-run port of Hambantota in Sri Lanka on August 11.
- On July 12, the day before Gotabaya Rajapaksa was scheduled to step down as president, Lanka granted permission for the ship to berth at Hambantota port.
- India was astonished to find that the Colombo government had granted permission for the Chinese military vessel to berth at Hambantota.
- New Delhi has expressed its strong concerns regarding the ship's anticipated arrival.
- Following India's concerns, Sri Lanka has asked China to put off a ship's arrival for as long as possible.
- The Chinese embassy in Colombo was formally requested by the Lankan foreign ministry to postpone the ship's arrival until further discussions.
- Although the issue has been resolved for the time being, India is concerned with the communication's wording, which suggests that the matter is still up for debate.

What is the Ship Yuan Wang 5?

- According to China, the "Yuan Wang 5" is a Chinese research and survey vessel.
- The Long March 5B rocket launch in China was the subject of Yuan Wang 5's last observation mission.
- Additionally, it recently participated in the maritime observation of the launch of the first lab module for China's Tiangong space station.
- Satellite, rocket, and intercontinental ballistic missile (ICBM) launches are monitored by ships of the Yuan Wang class.
- The ships are controlled by the PLA's Strategic Support Force (SSF) and serve as a supplement to Beijing's land-based tracking facilities.
- To centralise the PLA's strategic space, cyber, electronic, information, communications, and psychological warfare missions, the SSF was founded as a theatre command-level unit.

Why was the Ship Yuan Wang 5 having a stop at Hambantota?

- The ship was supposed to dock in Hambantota port for refuelling, according to China.
- This ship has been given the responsibility of monitoring and controlling Chinese satellites in the northern Indian Ocean.
- China also asserted that Sri Lanka and the other developing countries in the region will have a great opportunity to study and advance their own space programmes through the visit to Hambantota Port.

What caused concern for India?

- The "Yuan Wang 5" is a potent tracking vessel with an estimated substantial aerial range of 750 kilometers.
- This suggests that China may be monitoring a number of ports in Kerala, Tamil Nadu, and Andhra Pradesh.
- According to reports, several important installations in South India may be in danger of being spied on.
- The Indian government was concerned that the surveillance ship would be used to survey the ocean floor in preparation for possible anti-submarine operations against the Indian Navy.

Hambantota port

- Hambantota, the second-largest port in Sri Lanka, is located along the route that links Southeast Asia with Africa and West Asia.
- China has contributed significantly to the development of this port, and in 2017 Colombo ceded control of the majority of the port to a Chinese company due to debt default.
- It is a significant station for China's Belt and Road Initiative (BRI).
- Security experts draw attention to the fact that this port perfectly complements China's "string of pearls" strategy to encircle India in the Indian Ocean.
- The People's Liberation Army (PLA) Navy could become centralised if China controls this port, which would be detrimental to India's interests in the Indian Ocean.

NEW ZEALAND'S 'TOBACCO ENDGAME' LAW

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Health

Prepp Mains Booster: Issues Relating to Development and Management of Social Sector/Services relating to Health.

Context:

- The Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Bill was recently introduced in the New Zealand Parliament in order to carry out the country's goal of becoming "Smoke Free by 2025".
- Malaysia is also contemplating a ban on smoking and the sale of all tobacco products, including e-cigarettes, to anyone born after 2007, imitating New Zealand.



What is the Tobacco Endgame?

- The phrase "tobacco endgame" refers to a political strategy that emphasizes putting an end to the tobacco epidemic and envisions a "tobacco-free future."
- The "**Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Bill**" was recently introduced in **New Zealand's Parliament** as a strategy to reduce tobacco use.
- **Three strategies** are sought by the bill to greatly reduce or completely eliminate smoking.
- If passed, the law would be a first in the world since it would prohibit future generations from ever being able to legally purchase cigarettes.

What are the three strategies proposed in the New Zealand's Bill?

- Denicotinization, sometimes known as "very low nicotine cigarettes" (VLNC), is the process of drastically lowering the nicotine concentration in tobacco to make it non-addictive.
- A 90–95% decrease in the number of stores permitted to sell tobacco.
- Preventing the sale of tobacco to anyone who was born on or after January 1, 2009. (thereby bringing about a "smoke-free generation").

What is the Current Global state of tobacco consumption?

- According to the World Health Organization, the tobacco pandemic is one of the greatest risks to global public health, killing more than 8 million people a year, including over 1.2 million from exposure to secondhand smoke.
- Around the world, almost one in four individuals smoke.
- There is no level of cigarette exposure that is safe; all kinds of tobacco are toxic.
- The most prevalent method of tobacco consumption worldwide is cigarette smoking.
- Other tobacco goods include bidis, kreteks, cigars, cigarillos, roll-your-own tobacco, waterpipe tobacco, and numerous smokeless tobacco items.
- Numerous chronic diseases, including cancer, lung disease, cardiovascular disease, and stroke, are significantly increased by tobacco use.

What is the Tobacco consumption status in India?

- The **National Family Health Survey 5** found that among adults over 15 years of age, 38 percent of men and 9 percent of women smoke (2019-21).
- **Scheduled Tribe members** are more likely to smoke than members of any other caste or tribe (19% of women and 51% of males).
- Both among men and women, tobacco usage is higher in rural than in urban areas (43 percent for males and 11 percent for women).
- With no formal education or less than five years of education, about 65% of men and 15% of women smoke.

What are the Impacts of Tobacco Consumption India?

- **Human health:** According to the second Global Adult Tobacco Survey, 28.6% of all adults in India used tobacco in 2016–2017, trailing only China. About 8 million people died from smoking in 2021.
- **Environment:** According to the WHO, cigarette production annually results in the cutting down of 600 million trees, 84 million tonnes of CO₂ emissions, and the consumption of 22 billion litres of water.
- Our atmosphere is polluted by cigarette butts, packaging, plastic bags of smokeless tobacco, and e-cigarette battery components.
- **Employment:** According to the Central Tobacco Research Institute, tobacco is grown in 15 States by roughly 6 million farmers and 20 million agricultural labourers.
- Even if the GDP contribution from tobacco production is barely 1%, the direct medical costs for treating disorders brought on by tobacco use alone amount for 5.3% of India's annual health expenditures.
- **Socio-Economic Burden:** Smoking increases poverty by diverting household spending away from essentials like food and shelter.
- It is one of the main diseases and causes of mortality in India, where it kills close to 1.35 million people annually.
- The economic consequences of tobacco use are large and include high medical expenses for treating diseases brought on by tobacco use as well as the lost human capital as a result of morbidity and mortality linked to tobacco use.

What steps have been taken to combat tobacco consumption?

Initiatives at Global Level

WHO Framework Convention on Tobacco Control (WHO FCTC):

- This evidence-based treaty, which was created in reaction to the tobacco epidemic's globalisation, underlines everyone's right to the best possible level of health.
- The WHO FCTC's tobacco control provisions have been implemented by India.

World No Tobacco Day:

- Every year, May 31 is commemorated as "World No Tobacco Day" to raise awareness of the devastating consequences of tobacco use.

Initiative taken by Government of India

Cigarettes and Other Tobacco Products Act (COTPA), 2003:

- The Cigarettes Act of 1975, which was largely restricted to the statutory warnings "Cigarette Smoking is Injurious to Health" to be displayed on cigarette packs and advertisements, was replaced by the Cigarettes and Other Tobacco Products Act (COTPA), passed in 2003. the 1975 act excluded things other than cigarettes).
- Cigars, bidis, cheroot, pipe tobacco, hookahs, chewing tobacco, pan masala, and gutka were also covered by the 2003 Act.

The Prohibition of Electronic Cigarettes Ordinance, 2019:

- It forbids the manufacture, distribution, sale, import, export, transportation, storage, and advertisement of electronic cigarettes.

National Nicotine Quitline Services (NTQLS):

- With the express purpose of providing telephone-based information, guidance, support, and referrals for tobacco cessation, tobacco quitline services have the potential to reach a huge number of tobacco users.

mCessation Programme:

- The mCessation Programme is an effort to help people quit smoking by using digital technology.

UN DECLARES ACCESS TO CLEAN, HEALTHY ENVIRONMENT AS UNIVERSAL HUMAN RIGHT

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster: Universal Human Right

Prepp Mains Booster: Important International institutions, agencies and for- their structure, mandate

Context:

- According to the resolution, which was voted on July 28th, 2022, the two greatest risks facing humanity in the future are climate change and environmental degradation.
- According to a landmark UN decision, every individual on Earth has the right to live in a clean, healthy environment.



What is the need for such a declaration?

- **Increased frequency and severity** of droughts, scarcity of freshwater, wildfires, rising sea levels, flooding, melting

polar ice, catastrophic storms, and a decline in biodiversity

- More than seven million people **die prematurely each year as a result of air pollution**, according to the World Health Organization (WHO), making it the leading global cause of disease and early death.
- The loss or **reduction of biological diversity**, which includes animals, plants, and ecosystems, has **an influence on food security, access to clean water, and quality of life in general**.

What is the significance of this declaration?

- This significant breakthrough shows that the member nations can work together to combat the **triple global crisis of pollution, biodiversity loss, and climate change**.
- According to studies, these factors contribute to the deaths of about nine million individuals each year.
- The resolution will **aid in closing protection gaps and environmental injustices**.
- The UN Secretary-General, António Guterres, stated in a statement that it "can **empower individuals, especially those in vulnerable situations**, including environmental human rights activists, children, youth, women, and indigenous people."
- Nearly all of the rights related to the wellbeing of our environment are clarified by the declaration.
- The adoption of sustainable methods, such as a **switch to renewable energy** and a **circular economy**, should transform society.
- Everybody, everywhere, has a right to breathe clean air and consume clean water without endangering their health, according to Michelle Bachelet, the UN High Commissioner for Human Rights.
- **The 1948 Universal Declaration of Human Rights does not mention this right.**
- Accordingly, **this historic resolution** would alter the fundamental principles of international human rights law.

What was the significance of the United Nations Conference on the Environment in Stockholm?

- A resolution putting environmental concerns at the forefront of the global agenda was adopted at the end of the **United Nations Conference on the Environment in Stockholm** around 50 years ago.
- Today, it serves as the foundation for environmental framework laws in over 176 nations.
- These rights have been incorporated into constitutions, national legislation, and regional accords from a foundation in the Stockholm Declaration of 1972.
- It was acknowledged by the **UN Human Rights Council in October 2021**.
- Through its resolution on July 28, 2010, the **UN general assembly recognised the right to water and sanitation**. In order for all human rights to be realised, it was claimed

that access to clean drinking water and sanitary facilities is crucial.

- **July 28, 2010, the UN general Assembly:** Through its resolution on July 28, 2010, the UN general assembly **recognised the right to water and sanitation**. In order for all human rights to be realised, it was claimed that access to clean drinking water and sanitary facilities is crucial.
- Governments all across the world have adjusted their water and sanitation-related laws and rules in reaction to this.

What are the concerns?

- The declaration, which was endorsed by more than 160 UN members, including **India, is not enforceable in court**.
- However, according to the UN, it will push nations to include the **right to a healthy environment** in their national constitutions and regional accords.
- Iran and Russia voted against the motion.
- State parties only assume commitments for such rights through conventions and treaties.
- There is **no universally accepted definition for the terms "clean," "healthy," and "sustainable."**
- The country's representative also noted that the **text does not make reference to the core idea of equity** established in international environmental law.

Conclusion

Nevertheless, the United Nations claims that this has given environmental campaigners more authority to challenge environmentally harmful practices and policies. Having the right to a healthy environment is one of the fundamental conditions for living honourably. To ensure that these rights are upheld, the people must hold their governments responsible.

BIODIVERSITY BEYOND NATIONAL JURISDICTION (BBNJ) TREATY

PRIORITY: MEDIUM



Primary Source: Down to Earth

Prepp Prelims Booster: BBNJ Treaty

Prepp Mains Booster: Important International Institutions, agencies and fora - their Structure, Mandate.

Context:

Recently, the fifth meeting of the Intergovernmental Conference (IGC-5) for the Biodiversity Beyond National Jurisdiction (BBNJ) Treaty was held in New York. It was held under the UN Convention on the Law of the Sea (UNCLOS) to create a new, legally-binding global treaty to govern marine biological diversity in areas of the high seas beyond national Jurisdiction.

What were the key highlights of IGC-5?

- It was convened by the United Nations General Assembly (UNGA) as a follow up to earlier 4 IGCs which were inconclusive to finalise the BBNJ Treaty.
- It may be the last round of negotiations to frame the BBNJ Treaty under UNLCOS for the conservation and sustainable use of marine biological diversity.

IGC-5 discussions focused on

- Marine genetic resources (MGRs), including issues on sharing benefits, measures such as area-based management tools of marine protected areas, environmental impact assessments (EIAs), capacity-building and the transfer of marine technology, as well as cost-cutting issues.
- Collection of MGRs of areas beyond national jurisdiction, provision of access to traditional knowledge of indigenous peoples and local communities associated with MGRs on the high seas.

What is Biodiversity Beyond National Jurisdiction (BBNJ) Treaty?

- It is proposed a legally binding international agreement on conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction currently under negotiation at the UN. It is also known as the "Treaty of the High Seas".
- It will be the third legal instrument under the framework to the 1982 UN Convention on the Law of the Sea (UNCLOS). Other two are the 1994 agreement on the implementation of Part XI of UNCLOS and the 1995 UN Fish Stocks Agreement.
- Its aim is to achieve a more holistic management of high seas activities, for better balancing the conservation and sustainable use of marine resources.
- **Jurisdiction:** It will help to conserve biodiversity in areas beyond national jurisdiction (BBNJ) that lie outside countries' 322-kilometre exclusive economic zones (EEZs) and national jurisdiction of countries.

What is the need for a legally binding instrument for BBNJ?

- BBNJ encompasses areas of the high seas, beyond the exclusive economic zones (EEZs) or national waters of countries.
- These areas account for almost half of the Earth's surface and 95% of the ocean. They are also least understood or explored and are hardly regulated- only 1% of these areas are under protection.
- They provide invaluable ecological, social, economic, cultural, scientific and food-security benefits to humanity.
- Scientific information over the past decade has revealed the richness and vulnerability of marine biodiversity in

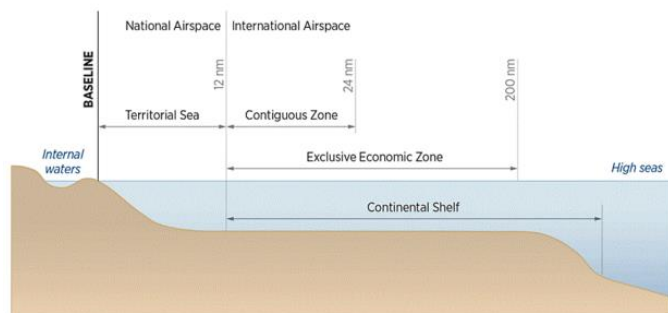
these areas, particularly around seamounts, hydrothermal vents, sponges, and cold-water corals.

- However, there are several concerns about the increasing anthropogenic pressures on them posed by existing and emerging activities for food, minerals or biotechnology – such as fishing, mining, marine pollution, and bioprospecting in the deep sea.

What is UNCLOS?

- It is also called the Law of the Sea Convention or the Law of the Sea Treaty.
- It defines the rights and responsibilities of nations with respect to their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources.
- It was adopted in 1982 and is the outcome of the third United Nations Conference on the Law of the Sea (UNCLOS III)- held between 1973 to 1982.
- Currently 167 countries and the European Union (EU) have joined in the Convention. India had signed it in 1982 and ratified in 1995.

U.N. Convention on the Law of the Sea: Defined Waters



MARITIME BOUNDARY DEFINITIONS

Territorial Sea. Sovereign territory of the state. Foreign civilian and military vessels have right to innocent passage.

Contiguous Zone. State may exercise control necessary to prevent infringement of its customs, fiscal, immigration, or sanitary laws.

Exclusive Economic Zone (EEZ). Sovereign rights for exploring and exploiting resources, preserving marine environment, establishing artificial islands and structures.

High Seas. All parts of the sea that are not included in the EEZ, the territorial sea, or in the internal waters of a state. No exclusive rights.

INDIA-MAURITIUS JOINT TRADE COMMITTEE

Priority: Medium

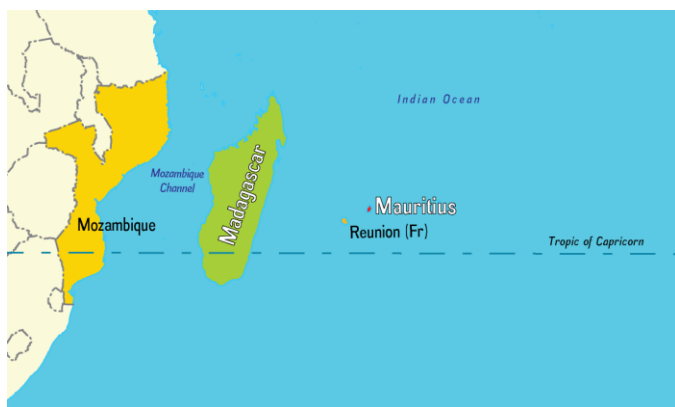
Primary Source: The Hindu

Prepp Prelims Booster: India-Mauritius joint Trade committee

Prepp Mains Booster: India and its neighborhood relations.

Context:

In accordance with the "India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement (CECPA)," India hosted the first session of the "India-Mauritius High-Powered Joint Trade Committee".



What are the outcomes of the High-Powered Joint Trade Committee?

- In order to significantly grow bilateral trade and maximise the full potential of the bilateral relationship, particularly under the CECTA, both parties decided to intensify their bilateral cooperation.

Industry and Merchandise:

- Inclusion of the CECTA's Automatic Trigger Safeguard Mechanism (ATSM) and General Economic Cooperation (GEC) Chapter.
- The GEC chapter will make it possible to increase export competitiveness and broaden the current area of potential collaboration in areas including investments, financial services, textiles, small and medium-sized businesses, handicrafts, gems and jewellery, etc.
- The ATSM shields the nation from any sharp or unexpected rise in imports.
- Under this mechanism, India can automatically apply safeguard taxes on imports from Mauritius if the imports of a commodity are rising dangerously after crossing a specific threshold.
- The same restriction on imports from India also applies to Mauritius.

Service Sector:

- The Ministry of Skill Development & Entrepreneurship and its counterpart in Mauritius reached a consensus on building skill-sets after engaging in discussions about establishing an equivalent standard for certification, skills, and licencing criteria of various professional bodies.
- The Mauritian side welcomed the migration of highly skilled professionals from India to Mauritius while expressing concern over the shortage of professionals in Mauritius in a variety of sectors, including Information and communication technologies (ICT), Financial Services, Film Production, Engineering, Health, etc.

What is the status of India-Mauritius Trade?

- India and Mauritius's bilateral trade in goods increased from USD 690.02 million in 2019–20 to USD 786.72 million in 2021–2022.

What is India - Mauritius CECTA?

- The India-Mauritius CECTA is India's first trade agreement with an African nation.
- It is a form of free trade agreement that intends to offer a formal system for promoting and enhancing trade between the two nations.
- It is a restricted agreement that will only cover a few industries.
- Trade in goods, rules of origin, trade in services, technical barriers to trade (TBT), sanitary and phytosanitary (SPS) measures, dispute resolution, etc. are just a few of the topics it will address.

What are the potential advantages of CECTA?

For India:

- The benefit to India is that more than 300 local products from the agricultural, textile, electronics, and other sectors will be able to enter the Mauritius market with reduced customs taxes.
- From the 11 broad service sectors, Indian service providers will have access to around 115 sub-sectors, including professional services, computer-related services, research & development, other business services, etc.

For Mauritius:

- It will have preferential access to India's market for its 615 products, which include frozen fish, specialty sugar, biscuits, fresh fruits, juices, mineral water, beer, alcoholic beverages, soaps, bags, medical and surgical equipment, and clothing.
- From the 11 broad service sectors, India has provided around 95 sub-sectors, such as professional services, R&D, other business services, telecommunication, environmental, health, etc.

How have ties between India and Mauritius been?

Economic:

- In 2016, India gave Mauritius a "Special Economic Package" of USD 353 million. One of the initiatives carried out as part of this package is the construction of the New Mauritius Supreme Court. In 2020, the two nations jointly inaugurated this.
- Phase-I of the Metro Express Project and the 100-bed, cutting-edge ENT hospital project in Mauritius, both constructed as part of the special economic package, have been officially opened by India and Mauritius.
- The International Trade Center (ITC) reports that in 2019, India (13.85%), China (16.69%), South Africa (8.07%), and the UAE were Mauritius' top import partners (7.28 percent).
- From USD 206.76 million in the Financial Year (FY) 2005–06 to USD 690.02 million in the Financial Year (FY) 2019–20, the bilateral trade between India and Mauritius has increased by 233%.
- The second largest source of FDI (Foreign Direct Investment) entering India in 2019–20 was Mauritius.
- **Building a State-of-the-Art Civil Service College** is being funded by a grant of USD 4.74 million under a

Memorandum of Understanding signed in 2017 during the Prime Minister of Mauritius' visit to India.

- **8 MW Solar PV Farm:** This project calls for the installation of 25,000 PV cells and will provide 14 GWh of clean energy per year, enough to power about 10,000 Mauritian homes.
- **Foreign Direct Investment:** In 2021–2022, Mauritius ranked third among countries sending FDI to India (15.98%).

Recent Developments:

- The signing of a deal for the shipment of an Advanced Light Helicopter Mk III by India and Mauritius. The Mauritius Police Force will make use of the helicopter.
- A USD 100 million Defence Line of Credit arrangement was inked by Mauritius and India.
- The Chagos Archipelago Conflict, a matter of sovereignty and sustainable development before the United Nations, was also discussed by the two sides (UN).
- India cast a vote in favour of Mauritius' stance on the matter in 2019 at the UN General Assembly. India was one of the 116 nations that voted for the resolution calling on the UK to stop its "colonial governance" of the chain of islands.
- 1,00,000 Covishield vaccines were also sent to Mauritius by India.

Way Forward

- For the nations within and bordering the Indian Ocean (IO), the changing geopolitical landscape has brought up new problems as well as possibilities. Along with the smaller island nations that border India, Mauritius is well aware of its marine identity and geostrategic importance. They are particularly aware of what these signify for India, their larger neighbour.
- As seen by **Mission SAGAR**, India's commitment to provide countries in the Indian Ocean area with help linked to Covid-19, India's approach to Mauritius is becoming more and more ingrained within a regional framework.
- India must continue to be proactive in bringing together similar-minded partners like Mauritius, Comoros, Madagascar, Seychelles, Maldives, and Sri Lanka in various and overlapping ways in order to advance this engagement.

REINTEGRATING THE CHABAHAR PORT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Chabahar port

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

In addition to recent steps to improve infrastructure in the strategically located Chabahar Port, India and Iran recently signed a memorandum of understanding (MoU) on the mutual

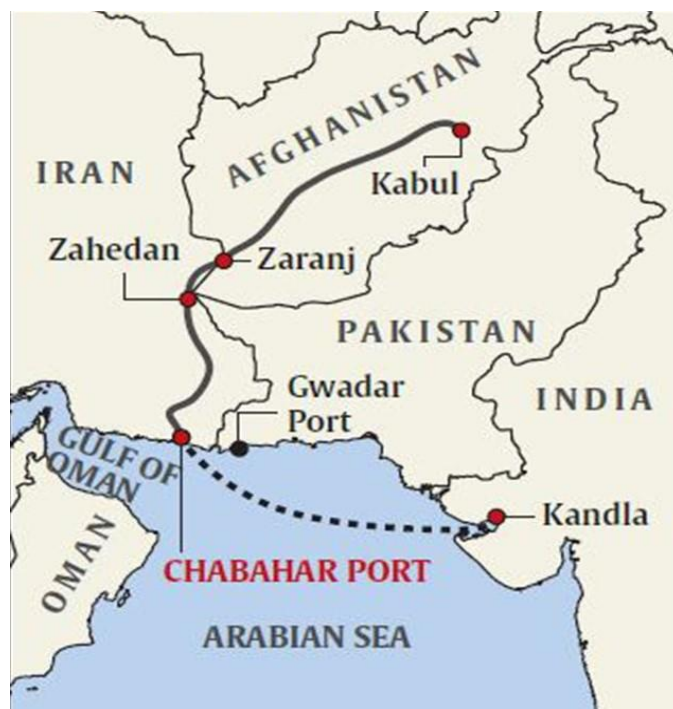
recognition of seafarers' codes of conduct for unlimited voyages.

Chabahar port :

- The Chabahar port is located in the Sistan province of Iran in the Indian Ocean.
- The Chabahar port is seen as the gateway to golden opportunities for India, Iran, and Afghanistan to trade with the Central Asian countries.
- The port, which is easily accessible from India's western coast, is increasingly being seen as a counter to Pakistan's Gwadar Port, which is being developed with Chinese assistance.
- The port of Chabahar is located in southeastern Iran in the Gulf of Oman
- It is the only Iranian port with direct access to the ocean.

What are the issues discussed in the meeting?

- The two delegations talked about the prospects for commerce and how to open up trade with South Asian, ASEAN, and even countries from the Far East like Japan and Korea.
- It was decided to establish a joint technical committee to ensure the port operated well.
- A memorandum of understanding (MoU) between India and Iran recognises sailors from both countries who hold certificates of competency for unlimited journeys.
- The MoU will facilitate the mobility of seafarers from both nations.



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What plan of action does India have for Chabahar?

- When the **initial agreement for Chabahar** was signed by the then-prime minister **Atal Bihari Vajpayee in 2003**, the goals of the project were:
 - the construction of India's first offshore port and the promotion of Indian infrastructure prowess in the Gulf;
 - the circumvention of trade through Pakistan due to tense relations ;
 - the construction of a long-term, sustainable sea trade route;
 - and the discovery of a different land route to Afghanistan, with which India had reestablished relations following the defeat of the Taliban in 2001.
- **Zaranj-Delaram Highway**: In order to connect the commerce route from the Iranian border to the primary trade routes to Herat and Kabul, the government of Prime Minister Manmohan Singh built the Zaranj-Delaram Highway in southern Afghanistan and turned it over to the Karzai administration in 2009.
- The development of Chabahar Port and the **trilateral agreement for commerce through Chabahar** were signed in 2016 in Tehran by Prime Minister Narendra Modi and President Ashraf Ghani of Afghanistan.
- **Alternative route to China-Pakistan Economic Corridor (CPEC)** : With China's Belt and Road Initiative making headway in the area in recent years, a strategic goal for the Chabahar route has emerged. The government wants to offer Central Asia an alternative route to China-Pakistan Economic Corridor (CPEC) .
- **International North South Trade Corridor (INSTC)** : India intends to connect the Shahid Beheshti port to the **International North South Trade Corridor (INSTC)**, which also connects to Russia and Europe, and turn it into "a transit centre."

What are the challenges?

- **Iran's relations with the west** :The main one has been Iran's ties with western nations, particularly the United States.
- **Withdrawal from the Joint Comprehensive Plan of Action (JCPOA)**: By withdrawing from the JCPOA and imposing additional sanctions on trading with Iran in 2018, the Trump administration of the United States put an end to India's intentions.As a result, the Modi administration "zeroed out" all of India's oil imports from Iran, which was once a significant supplier. This strained relations.
- **Sanctions**: It has been challenging to find equipment for the port's construction from infrastructure companies that continue to worry about secondary sanctions, as well as to engage shipping and insurance companies for trade

through Chabahar, despite the U.S. making a special "carve-out" on sanctions for Chabahar.

- **Taliban takeover of Afghanistan**: Following the Taliban takeover in August 2021, the Modi government severed links with Afghanistan as well, which put an end to the humanitarian supplies of wheat and pulses that was being transported to Kabul via Chabahar.

- The government reported in Parliament last month that since the India Ports Global Chabahar Free Zone (IPGCFZ) authority took over the port's operations in 2018, it had handled 215 vessels, 16,000 TEUs (Twenty-foot Equivalent Units), and four million tonnes of bulk and general cargo.

GENERAL STUDIES 3

Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment. Macroeconomy: Public Finance, Government Budgeting, Taxation, Infrastructure and Investment Models,

INDIA'S TAX-GDP RATIO MAY BE TOO HIGH

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Tax-GDP ratio

Prepp Mains Booster: Government Budgeting, Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development.

Context:

Surjit S Bhalla, executive director, IMF representing India, Sri Lanka, Bangladesh and Bhutan writes the discussion should now focus on the quality of spending because India's tax-to-GDP ratio is significantly greater than anticipated.

Tax to GDP Ratio

$$\text{Tax to GDP Ratio} = \frac{\text{Tax Revenue of the Nation During the Period}}{\text{Gross Domestic Product of the Nation}}$$



What is the tax to GDP ratio?

- The tax to GDP ratio is the ratio of tax collected compared to national gross domestic product (GDP).
- It gives policymakers and analysts a parameter that can be used to compare tax receipts from year to year.

Common observations in tax/GDP of India

- Two common observations can be made regarding tax/GDP in India.

- First, it is low, around 10–11% of GDP, and has remained at or near that level for the past 20 years. It was the same as in 2014 when it fell to a decade low of 10% of GDP in 2019.
- Second, it is far lower than that of our competitors. Therefore logically it dictates that we should strive to increase tax/GDP.

India's tax/GDP ratio:

- Our tax/GDP ratio is lower than it "should" be, according to one conventional notion in India and among some of the top economists both in India and outside.
- It is hypothesized that our low tax ratio is to blame for our low investment rate, huge fiscal deficit, and low GDP growth.
- Taxes, fiscal deficit, and debt are three crucial fiscal factors in the economy. Lower tax collection results in a greater fiscal deficit for the same amount of spending, and a greater fiscal deficit results in a greater debt burden. All three are thought to have an impact on inflation and/or growth, either directly or indirectly.
- **Tax ratios and fiscal deficits have no statistical or empirical evidence to support a causal link between them and growth. However, there is a proven connection between investment and growth.**

What are the issues?

- Examining the **tax-to-GDP ratio in G20 nations** is a frequent observation (made by economists) is the first of a series of mistakes that have been made
- Because it follows from common sense that the amount of tax collected depends on the average level of per capita income. In the G20, per capita income ranges from about \$2,100 (India) to almost \$65,000. (US).
- The **tax/GDP ratio for centrally managed taxes in India** is between 10 and 11 percent.
- In India, as in many other sizable nations, particularly federal ones, taxes are gathered at both the federal and state levels.
- Local (municipal) taxes are also a common economic feature.
- India's tax-to-GDP (ratio of 16.7% in this pre-pandemic year was higher among G20 nations than that of China (15.9%), Mexico (14.1%), and Indonesia (11.0%), Saudi Arabia (5.9%), and Turkey (15.9 percent).
- Looking at the **tax-GDP ratio adjusted for PPP per capita income** provides a **more accurate indication** of whether a nation is taxing its citizens too much or too little in relation to other nations (and excluding resource-rich economies like Russia and Saudi Arabia and countries with populations less than 3 million).
- India's tax gap is **higher than the global average of 1.2%** throughout the nine-year period between 2011 and 2019 according to **IMF's World Revenue Longitudinal Data set (WoRLD)**.

- India has a tax to GDP ratio that is, on average, 2.5 percentage points higher than the global average.
- India ranks 20 out of 70 emerging economies (excluding advanced economies and nations that were a part of the Soviet Union) because its tax to GDP is consistently higher than that of its 50 closest competitors. **Therefore, there is no proof that India's tax to GDP ratio is too low.**
- India has had a positive tax gap for every year for which data are available between 1990 and 2019; however, there is **little proof that a higher tax/GDP ratio promotes growth.**

How reduction in corporate tax helped India?

- **Higher corporation tax rates discourage investment, raise tax evasion, and slow growth.**
- After three years of the corporate tax cut it has been observed that the corporate tax receipts for the three months of April through June 2022 are up 30% year over year.
- **Corporate tax revenue has climbed by 66%**, GDP by 33%, or an average tax buoyancy of 2.0 during the past three years, using fiscal 2019–20 as the base year.
- According to estimates, India's tax-to-GDP ratio will typically be over 18% in fiscal year 2022–2023—a level that is comparable to that of Japan and the US.

Way Forward

- The findings unequivocally demonstrate that the discussion of the Indian economy should move away from crude assumptions (imported from the West), such as the country's low tax-to-GDP ratio.
- The topic of the conversation should change to expenses and their level of quality (and perhaps to reform the direct tax code). In this sense, PM Modi's recommendation that freebies be thoroughly analyzed is very welcome and time-appropriate.

WHAT IS THE HOUSEHOLD CONSUMPTION EXPENDITURE SURVEY (HCES)?

Priority: Medium



Primary Source: PIB

Prepp Prelims Booster: Household Consumption Expenditure Survey

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development

Context:

- Recently, the **Household Consumption Expenditure Survey (HCES)**, which is conducted **every five years**, began this month.
- The survey outcomes will comprise distinct data sets for **rural and urban areas**, spending trends for each State and Union Territory, as well as statistics for various socioeconomic classes.

Counting the spending | The All-India Households' Consumer Expenditure Survey will be conducted between July 2022 and June 2023

What is it? Usually carried out every five years, the survey helps assess poverty levels and consumption patterns across the country, and rebase GDP calculations

What's the big deal? The last survey whose findings were made public was conducted in 2011-12

Why this long pause? A survey was conducted in 2017-18 too, but its results were not released owing to 'quality' concerns. It reportedly reflected the first drop in monthly per capita household spending since 1972-73, with a rise in poverty incidence



What is the Household Consumption Expenditure Survey?

- The National Sample Survey Office (NSSO) typically conducts the Household Consumption Expenditure Survey after every five years quinquennial).
- It is intended to gather data on household spending habits in both urban and rural areas of the nation.
- The Survey is typically done between July and June, and the current exercise is anticipated to be finished by June 2023.

Survey Outcome:

- The survey outcomes will comprise distinct data sets for rural and urban areas, spending trends for each State and Union Territory, as well as statistics for various socioeconomic classes.
- Survey will show average spending on goods and services (including food and non-food items).
- It will estimate household Monthly Per Capita Consumer Expenditure (MPCE) and the distribution of households and people among the MPCE classes are produced with the aid of this data.

Why HCES?

- The HCES is used to review important economic data including the Gross Domestic Product and estimate poverty levels (GDP).
- The survey's findings are also used to revise the Consumer Price Index's base calculation and to update the consumption basket.
- The distribution of homes and individuals throughout the MPCE classes, as well as estimates of household Monthly Per Capita Consumer Expenditure (MPCE), are both aided by this.
- Since 2011-12, it has been used to evaluate the levels of poverty in various regions of the nation and to review economic statistics like the GDP.

Significance of HCES:

- Aids in **calculating the economic demand dynamics**.
- Provides guidance to the producers of products and service providers by assisting in the understanding of the shifting priorities in terms of baskets of commodities and services.
- To evaluate growth patterns and living standards across various strata.

Relevance to Policymakers:

- The CES is a **forecasting and analytical tool** that aids the government in formulating the necessary interventions and policies.
- To identify and **rectify any potential structural irregularities** that could lead to a change in demand in a particular socioeconomic or regional segment of the population.
- To **rebase macroeconomic metrics** such as the Gross Domestic Product (GDP) and others.

What about the previous survey?

- The most recent survey took place in 2017-2018.
- The government acknowledged that there were problems with data quality.
- Therefore, the results weren't made public.

RBI NOTIFIES GUIDELINES TO REGULATE DIGITAL LENDING

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: Digital Lending

Prepp Mains Booster: Government Policies and Interventions for Development in various sectors

Context:

Recently, the Reserve Bank of India (RBI) issued the first set of guidelines for digital lending aimed at firming up the regulatory framework for such activities.

What is Digital Lending?

- It is the process of offering loans that are applied, disbursed, and managed through digital channels such as web platforms or mobile apps.
- In this case, lenders by taking advantage of technology use digitised data to take informed credit decisions and build intelligent customer engagement.

There are three players Digital Lending ecosystem

- RBI regulated entities like Banks, and NBFCs.
 - Other regulated entities.
 - Unregulated entities, including third-party service providers.
- In recent times, there has been a significant rise in India's digital lending market.
 - The digital lending value has increased from US \$33 billion in FY15 to US \$150 billion in FY20 and is expected to hit the US \$350-billion mark by FY23.
 - To tap in the digital lending market several banks have launched their own independent digital lending platforms by leveraging existing capabilities in traditional lending.
 - Moreover, its popularity has increased amongst new-age lenders and it can be attributed to expanding smartphone penetration, credit range flexibility, and speedy online transactions.

What are the advantages of Digital Lending?

- **Financial Inclusion:** It has the potential to make access to financial products and services more fair, efficient, and inclusive especially by meeting the huge unmet credit needs in the microenterprise and low-income consumer segment in India.
- **Time and Cost Saving:** It decreases time spent on working loan applications. It has also been known to cut overhead costs by 30-50%.
- **Reduce borrowing from informal channels:** As it simplifies the process of formal borrowing, it helps in reducing informal borrowings.

What are the issues with Digital Lending Platforms?

- a Growing number of unauthorized digital lending platforms and mobile applications.
- Violation of data privacy, as these platforms may misuse agreements to access data on mobile phones of borrowers.

They charge excessive interest rates and additional hidden charges.

What are RBI Guidelines on Digital Lending?

- **Loan Disbursals and Repayments:** It will be executed only between the bank accounts of the borrower and the Regulated Entities (RE) without any pass-through or pool account of the Lending Service Providers (LSP) or any third party.
- **Fees or charges payable to LSPs:** These will be paid directly by the bank or Non-Banking Financial Companies (NBFCs) and not by the borrower.
- **Regarding Loan Disclosure:** Mandatory to inform borrowers of the all-inclusive cost of digital loans in the form of Annual Percentage Rate (APR).
- **Regarding automatic increase in Credit Limit:** Completely prohibits any automatic increase in credit limit without the explicit consent of the borrower.
- **Regarding Exiting Digital Loans:** As part of the loan contract, borrowers can exit digital loans by paying the principal and the proportionate annual percentage rate without any penalty during the cooling-off/ look-up period.
- **Protection of Data Privacy:** Digital lending apps can collect data only one need-based and that too with the prior consent of the customer and this collected data can be audited, if required.
- **Grievance Redressal Officer:** Mandates banks and LSPs engaged by them to have a nodal grievance redressal officer to deal with fintech- or digital lending-related complaints. This officer will also deal with complaints against their respective Digital Lending Apps (DLAs).
- **Reporting of Loans:** Mandatory for regulated entities to report to Credit Information Companies (CICs) about any lending done through DLAs, irrespective of its nature or tenor. Moreover, lending through the Buy Now Pay Later (BNPL) model also needs to be reported to CICs.

Which Digital Lending entities will come under RBI Guidelines?

RBI classified digital lenders into three categories while announcing guidelines. They are

1. Entities are regulated by the RBI and permitted to carry out lending business.
 2. Entities not regulated by RBI, but authorized to carry out a lending as per other statutory or regulatory provisions.
 3. Entities lending outside the purview of any statutory or regulatory provisions.
- RBI's regulatory framework is only focused on the digital lending ecosystem of regulated entities and the LSPs engaged by them to extend various permissible credit facilitation services.
 - However, digital lenders in the other categories do not come under these new guidelines and they can formulate appropriate rules and regulations on digital lending based on the recommendations of the working group.

GOLD EXCHANGE TRADED FUNDS (ETFs) SEE THE HIGHEST OUTFLOWS

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Gold Exchange Traded Funds

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilisation, of resources, growth, development and employment.

Context:

According to the recently released World Gold Council report, Global gold exchange-traded funds (ETFs) registered the highest net outflows of \$4.5 billion in July 2022. This was the third consecutive month of outflows and the worst since March 2021. From India, Gold ETFs witnessed a net outflow of Rs 457 crore.



What is a Gold ETF?

- Gold ETF is a passive investment instrument based on gold prices.
- It offers investment in gold bullion by tracking the domestic physical gold price.
- Its unit represents physical gold which may be in paper or dematerialised form (in an electronic form). Hence, while selling a gold ETF unit, an investor will not get physical gold but the cash equivalent.
- One gold ETF unit is equal to 1 gram of gold of very high purity.
- Gold ETFs are listed and traded like a stock of any company on Bombay Stock Exchange (BSE) and National Stock Exchange of India (NSE).

What are the benefits of Gold ETF?

- It offers the flexibility of stock investment and the simplicity of gold investments.
- It has much lower expenses as compared to physical gold investments.
- It is also accepted as collateral by banks for loans.
- No fear of theft: it is safe and secure as it is held in the Demat Account of the holder.
- It also offers complete transparency on the holdings of an ETF.
- It is a tax efficient way to hold gold as the income earned from it is treated as long term capital gain.
- Guarantees purity of the gold as its each unit is backed by physical gold of high purity.

What are the risks associated with Gold ETF?

- It is subject to market risks impacting the price of gold.
- It is also subject to SEBI Mutual Funds Regulations.
- Mandatory regular audit of the physical gold bought by fund houses by a statutory auditor.

What are possible reasons for the outflow?

- Fall in Gold prices due to increase in investors' expectations from other assets due to rising interest rate cycle. This has impacted the net flows into the gold ETFs.
- In India, falling rupee is another factor that has likely impacted the demand and supply dynamics of gold.
- This trend also is being witnessed globally too, with gold ETF's posting significant outflows due to lower gold prices
- This outflow could be also due to diversion of money from gold to other asset classes as a part of a portfolio rebalancing strategy.

GUJARAT BECOMES FIRST INDIAN STATE TO LAUNCH SEMICONDUCTOR POLICY 2022-27

Priority: Medium

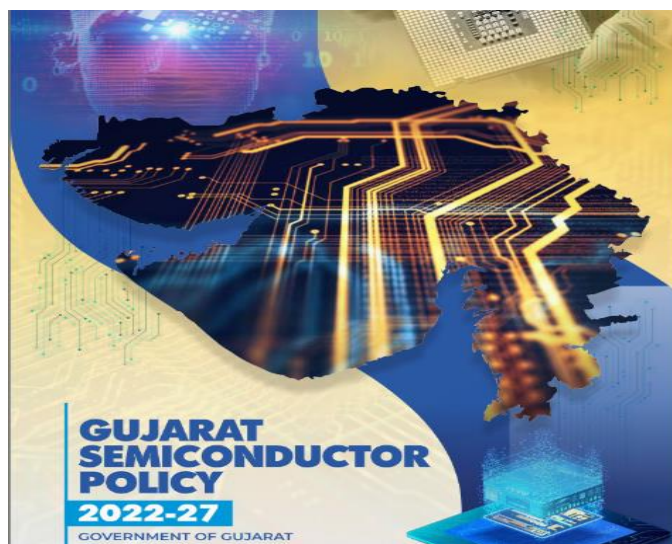


Primary Source: The Indian Express

Prepp Mains Booster: Indian Economy and issues relating to Growth, Development, Indigenization of Technology, Changes in Industrial Policy and their Effects on Industrial Growth

Context:

Recently, the Gujarat government released its "Gujarat Semiconductor Policy 2022–27." Over the course of five years, the policy objectives produced at least 2,000 000 new job possibilities. The first state in India to publish a specific semiconductor strategy is Gujarat. In addition, the government has suggested creating a unique "Semicon City" as a component of the Dholera Special Investment region.



Gujarat Semiconductor Policy 2022–27:

Feature:

- The Gujarat Government will offer substantial electricity, water, and land tariff discounts under the Gujarat Semiconductor Policy 2022–27 to entrepreneurs who are interested in investing in Gujarat-based semiconductor or display fabrication industry.
- The goal of the policy is to position the state as the leader in the emergence of the Electronics System Design & Manufacturing (ESDM) ecosystem.
- In an effort to create a strong ecosystem for the production of semiconductors and displays, it will ensure the efficient and prompt completion of qualified projects.
- It focuses on offering direction to a sizable chunk of investments made in Gujarat in accordance with the India Semiconductor Mission policies.
- Additionally, it seeks to create a "Semicon City."
- For projects approved under the India Semiconductor Mission, it provides additional capital assistance at a rate of 40% of the central government's capex aid.
- Projects approved under the Union government's Design-Linked Incentive Scheme will not be eligible to receive rewards under the new policy.
- The first 200 acres of land in the Special Investment zone will be purchased for eligible projects at a 75 percent subsidy.
- On the other hand, extra land for projects in the upstream or downstream will receive a 50% land cost subsidy.

What is the India Semiconductor Mission(ISM)?

- The ISM was established in 2021 by the Ministry of Electronics and IT (MeitY) with a total financial investment of Rs76,000 crore.
- It is a component of the all-encompassing plan for the nation's sustainable semiconductor and display ecosystem growth.

- The programme intends to give businesses that invest in the semiconductor, display manufacturing, and design ecosystem financial help.
- ISM, which would act as the nodal organisation for effective, cogent, and seamless execution of the plans, is planned to be directed by international leaders in the Semiconductor and Display industries.

Component of ISM:

Scheme for setting up of Semiconductor Fabs in India:

- Aiming to draw significant investments for the establishment of semiconductor wafer fabrication facilities in the nation, the Scheme for Setting Up Semiconductor Fabs in India offers financial support to Eligible Applicants for Setting Up Semiconductor Fabs.

Scheme for setting up of Display Fabs in India:

- It offers financial help to qualified applicants for the establishment of Display Fabs with the goal of luring significant investments for the construction of TFT LCD/AMOLED based display fabrication facilities in the nation. Scheme for Establishing Display Fabs in India

Scheme for Design-Linked Incentive (DLI):

- For Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores, and semiconductor linked design, it provides financial incentives and design infrastructure support at various phases of development and deployment.

Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India:

- For the establishment of Compound Semiconductors, Silicon Photonics (SiPh), Sensors (including MEMS) Fab, Semiconductor ATMP, and OSAT (Outsourced Semiconductor Assembly and Test) facilities in India, the Scheme offers eligible applicants financial help equal to 30% of the Capital Expenditure.

AN INDIA BLOCKCHAIN PLATFORM

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: India Blockchain Platform

Prepp Mains Booster: Awareness in the fields of IT, Space, Computers.

Context:

In recent times, India has made several efforts to become a digital society by building a large citizen-scale digital public infrastructure with a significant push from the government. There is a need to build digital infrastructure based on blockchain technology to transform the digital ecosystem in India for enabling the future of digital services, platforms, applications, content, and solutions.

What is Public Digital Infrastructure?

- It refers to solutions and systems that enable the effective provision of essential society-wide functions and services for public and private service delivery.
- A country's digital public infrastructure may include implementations of multiple proprietary and or open-source solutions.

India's initiatives in Public Digital Infrastructure

- The Central Government and the Reserve Bank of India (RBI) have been promoting simplification and transparency to increase the speed of interaction between individuals, markets, and the government.
- With launch of the Digital India mission in 2015, the payments, passports, driving licences, provident fund, crossing tolls, and checking land records all have been digitally transformed with modular applications built on Aadhaar, Unified Payments Interface (UPI) and the India Stack.

Limitations

- **Not Interconnected:** Existing different digital infrastructures as a design are not interconnected.
- **Not Interoperable:** There is a need for a technical integration of digital infrastructures to make them conversant and interoperable.
- **Validation of data is becoming complex:** Information at present flows across multiple systems to complete the interaction and rely on private databases. This makes the validation of data more complex as the network grows, creating inefficiencies and driving up costs.
- **Low availability and affordability:** Digital infrastructure should be designed based on principles of affordability, availability, value, and trust.

Solutions

Web 3.0:

- It is a decentralised internet that runs on blockchain technology and is different from the internet versions currently in use such as Web 1.0 and Web 2.0.
- **Web 1.0 internet:** It is mostly static web pages where users visit websites and then read and interact with the static information.
- **Web 2.0 internet:** Allows users can create interactive content - primarily, a social media kind of interaction.
- Web 3.0 will allow users to have ownership stakes on platforms and applications, unlike in the present scenario where tech giants control the platforms.

Benefits of Web 3.0 based on Blockchain Technology

- Fewer Intermediaries,
- Transparency,
- Efficient searching and information linking,
- Personalised Web Surfing Experience and
- Uninterrupted services

Significance of Web 3.0 architecture

- It establishes a new version of the Internet protocol incorporating token-based economics and providing transparency, and decentralisation.
- Public Digital Infrastructure based on it will allow users to access all ecosystem benefits using a distributed token where they can show proof of ownership, payment instruments and tax history.
- Even the blockchain records will be visible, compiled, and audited easily by the regulators in real time.

Blockchain:

- It is a distributed database or ledger that is shared among the nodes of a computer network. As a database, it stores information electronically in digital format.
- Its application is best known in cryptocurrency systems, such as Bitcoin, for maintaining a secure, tamper proof and decentralised record of transactions.
- Future innovations of blockchain technology will guarantee the fidelity and security of a record of data and help in generating trust without the need for a trusted third party.

Case studies of Public Digital Infrastructure

- Estonia is the blockchain capital of the world. It uses public digital infrastructure based on blockchain technology to verify and process all e-governance services offered to the public.
- In 2020, China launched a program called Blockchain-based Service Network (BSN) to deploy blockchain applications in the cloud at a streamlined rate.
- The Brazilian government recently launched the Brazilian Blockchain Network (BBN) to bring participating institutions into governance.

How can India benefit?

- **Create Interoperability:** There is a need for supporting research in standards, interoperability, and efficient handling of current known issues with the distributed technologies. For this, the Indian digital community, including fintech, academia, think tanks, and institutions should join hands.
- **Regulation:** At present, blockchain models are partially permitted or are fully public like Ethereum- which are

unregulated and rely on intrinsic standards. So there is a need for government regulations.

- **Creating National Ecosystem on Blockchain:** This public infrastructure will help to solve existing issues of decentralised technologies.
- It can be done by establishing a national platform operating at L1 (layer-1) that interconnects blockchains (both permissioned and public), token service providers, application providers (decentralised applications-dApps), and infrastructure managers.
- Together they will help to form a reliable and efficient network for the Indian digital economy. This national ecosystem can be further deployed to relevant and purpose-specific applications at L2(Layer-2) at very little cost and effort.
- Further, all chains on the National Ecosystem on Blockchain will communicate with each other, thus replicating the communication and avoiding the need for complex integrations with each other on the Internet for existing Indian digital infrastructures.

FAO'S SOIL MAPPING PROJECT FOR BETTER USE OF FERTILISERS, IMPROVING FOOD SECURITY

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster: FAO

Prepp Mains Booster: E-technology in the aid of farmers.

Context:

Recently, the Food and Agriculture Organisation (FAO) started a project to digitally map soil nutrients in sub-Saharan Africa (SSA) and Central America to increase efficiency in using fertilisers and food security in the long run. Under this project, FAO will organise and improve existing soil maps of countries in Central America and SSA.



What is Soil Mapping?

- It is the process of locating and identifying the different soils, delineating natural bodies of soils, classifying and grouping the delineated soils into map units, and capturing soil property information for interpreting and depicting soil spatial distribution on a map.
- It uses the most advanced technology to obtain the most accurate information about the condition of the soil, the weather and the crops.

Benefits

- It helps in enhancing understanding of what types of nutrients soils and crops need.
- It aids in reducing wastage while applying fertilisers to crops and increases their effectiveness to increase crop yields.

Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment,

SEBI PROPOSES BLUE BONDS CONCEPT FOR SUSTAINABLE FINANCE

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Securities and Exchange Board of India

Prepp Mains Booster: Statutory, regulatory and various quasi-judicial bodies; Indian Economy and issues relating to planning, mobilisation of resources, growth and Development

Context:

- Recently, markets regulator Securities and Exchange Board of India (SEBI) proposed the concept of blue bonds as a mode of sustainable finance.
- Such blue bonds can be utilised for various blue economy-related activities, including oceanic resource mining and sustainable fishing.



What suggestions were made by SEBI?

- It suggested strengthening the framework for green bonds by amplifying the definition of green debt securities and enhancing disclosures.

- Aligning India's ESG (Environmental, social, and governance) market with global standards i.e. with updated Green Bond Principles (GBP) published by the International Capital Market Association (ICMA).

What is a blue bond?

- It is a debt instrument issued by governments, development banks or others to raise capital from impact investors to finance marine and ocean-based projects that have positive environmental, economic and climate benefits.
- This can include projects to support sustainable fisheries, protection of coral reefs and other fragile ecosystems or reducing pollution and acidification etc.
- Seychelles had launched the world's first sovereign blue bond in 2018 to support sustainable marine and fisheries projects.

How are Green Bonds different from Blue Bonds?

- Green bonds are financial instruments used to fund projects that have positive environmental and or climate benefits. This includes projects like renewable energy, emission reductions etc.
- Blue bond is a type of green bond which specifically invests in climate resilient water management and water infrastructure.
- Thus, all blue bonds are green bonds (makes blue bonds a subset of green bonds), but not all green bonds are blue bonds.

What is the significance of Blue bonds for India?

- India has a 7,500 km-long coastline and 14,500 km of navigable inland waterways, and the blue economy comprises 4.1% of India's economy.
- Therefore, there is tremendous scope for deployment of blue bonds in various aspects of the blue economy like sustainable fishing, oceanic resource mining, national offshore wind energy policy, reducing water pollution and blue flag beach eco-tourism model etc.

What is SEBI?

- It was constituted in 1988 as the regulator of capital markets in India through a Government of India resolution.
- It was made a statutory regulatory body through the enactment of the Securities and Exchange Board of India Act, 1992. It is headquartered in Mumbai, Maharashtra.
- It acts as a market regulator to promote and regulate the securities market and protect the interests of investors in securities. To do so, it has three main powers of- Quasi-Executive, Quasi-Legislative and Quasi-Judicial.
- In 2015, the commodity markets regulation was also given to SEBI by merging the Forwards Market Commission (FMC) with SEBI.

WHAT IT WILL TAKE TO FULFILL INDIA'S SOLAR POWER DREAM?

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Solar power

Prepp Mains Booster: Infrastructure: Energy, Energy security, Indigenization of Technology.

Context:

- India has significantly increased its solar power capacity during the past ten years, going from less than 10 MW in 2010 to exceeding 50 GW by 2022.
- The Indian government has set a goal of increasing installed renewable energy capacity to 500 GW by 2030, of which 280 GW will come from solar photovoltaics.
- Up until 2030, this calls for the installation of almost 30 GW of solar capacity annually.
- This goal has created the need to augment the PhotoVoltaic cell/panel and module manufacturing capacity in India.



What is the status of Renewable Energy in India?

In India, there are 151.4 GW of installed renewable energy capacity. The breakdown of the total installed capacity for renewables is as follows:

- Solar : 55 GW
- Wind : 40.08 GW
- Biomass energy: 10.61 GW
- Small Hydro Electric: 4.83 GW
- Large Hydro Electric: 46.51 GW

What is the present status of Solar Energy generation capacity in India?

- In terms of installed solar power capacity, India is now ranked fifth, behind China, the United States, Japan, and Germany.
- India's installed solar capacity as of December 2021 was 55 GW, which is nearly half of the country's total renewable energy (RE) capacity (excluding major hydropower) and 14% of its total power generation capacity.

- Grid-connected utility-scale projects account for 77% of the 55 GW, with the remaining 23% coming from grid-connected rooftop and off-grid installations.

What is a Solar Photovoltaic(PV) Panel?

- A typical solar PV value chain begins with the fabrication of polysilicon ingots, which must then be converted into the thin Si wafers required to produce the PV mini-modules.
- The mini-modules are then put together to create market- and field-ready modules.
- The larger solar wafer size has an inherent advantage of less silicon will be lost throughout the ingot to wafer procedure. This will result in a benefit in terms of silicon cost per wafer.

What is the present PV manufacturing capacity of India?

- India's solar module production capacity is 18GW as of December 2021.
- India currently has a manufacturing capacity of 3GW for solar cells and 15GW for modules.

What are the issues that need to be overcome in solar PV manufacturing?

- Increased Imports:** India currently lacks the capacity to produce enough modules and cells. As a result, Indian enterprises who deploy or install solar energy rely largely on imports.
 - Nearly all of the other important raw materials, such the metallic pastes of silver and aluminium used to create the electrical connections, are imported. India serves as a centre for assembly rather than production.
- Low domestic manufacturing capacity:** The capacity of India to produce solar modules at this time is only 15 GW annually. Currently, India only produces about 3.5 GW of cells. Even at the present deployment levels, India imports all silicon wafers and about 80% of cells because it lacks the capacity to produce polysilicon ingots and solar wafers.
- Size and technology:** The majority of manufacturing still employs Al-BSF cell technology, which typically offers efficiencies of 18–19% at the cell level and 16–17% at the module level. In contrast, cell manufacture has switched to other, more recent technologies, producing modules with an efficiency of over 21%.
- Supply of raw materials:** Silicon wafer, the priciest raw material, is not produced in India. The production of solar wafers takes place in China today to a greater than 90% extent.
- Sector and academia working together:** India hasn't made many investments in building high-quality, high-TRL technology centres that can assist the industry in trying and testing the technologies in an economical way. These facilities include IMEC Belgium and the Holst Centre in the Netherlands, as examples.

What measures have the governments taken to promote solar PV manufacturing?

Production Linked Incentive scheme for high-efficiency solar modules:

- There is a PLI scheme to boost manufacturing capex as well as a 40% charge on the import of modules and a 25% duty on the import of cells.

Domestic Content Requirement (DCR):

- It has been mandated to source solar PV cells and modules from domestic sources under some of the Ministry of New & Renewable Energy's (MNRE) current schemes, including the Grid-connected Rooftop Solar Programme Phase-II, PM-KUSUM, and Central Public Sector Undertaking (CPSU) Scheme Phase-II, wherein government subsidies are given.
- In addition, the government made it a requirement that projects connected to state or federal government grids must purchase modules from manufacturers on an Approved List of Manufacturers (ALMM).

Imposition of Basic Customs Duty on import of solar PV cells & modules:

- Basic Customs Duty (BCD) to be imposed on imports of solar PV cells and modules: According to a government announcement, basic customs duty (BCD) would be imposed on imports of solar PV cells and modules.
- Additionally, a 40% tariff on the import of modules and a 25% duty on the import of cells have been levied.
- Basic custom duty is a tax that is assessed at a set rate based on the value of the goods.

Modified Special Incentive Package Scheme (M-SIPS):

- The Ministry of Electronics and Information Technology is behind the plan.
- The major benefit of the programme is a 20% tax credit for investments made in Special Economic Zones (SEZs) and a 25% tax credit for non-SEZ investments in PV cells and modules.

What needs to be done further?

- Even if India has made remarkable strides in the deployment of solar PV modules for power generation, the country still needs more than simply tax barriers and financial inducements like PLI programmes to become a manufacturing centre for the technology.
- India will need to concentrate on technical partnerships to produce the proper grade of silicon for the production of solar cells.
- In the long run, it would be advantageous to climb the value chain by producing parts that may influence the cost and standard of both cells and modules.
- To focus on specific technology domains with clear short- and long-term roadmaps and objectives, India needs to establish industry-like centres.
- Effective, creative industry-academia collaboration to begin creating homegrown innovations.

ENERGY CONSERVATION (AMENDMENT) BILL 2022

Priority: Medium



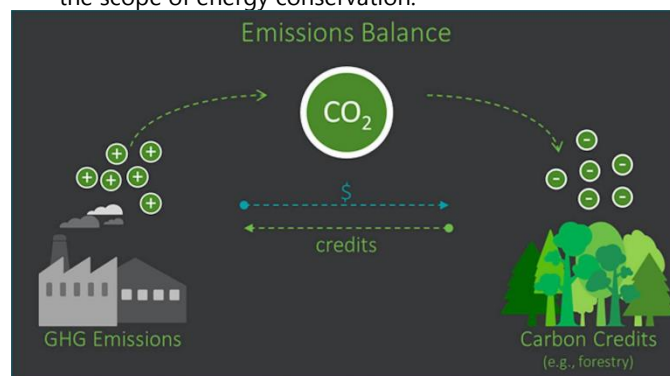
Primary Source: The Indian Express

Prepp Prelims Booster: Energy Conservation

Prepp Mains Booster: Environmental pollution and degradation; Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- The Energy Conservation (Amendment) Bill 2022 was introduced during the current Monsoon Session of Parliament in an effort to fulfill India's pledge to its climate commitments set forth in the Paris Agreement.
- The Electricity Conservation Act of 2001 is proposed to be modified by the bill.
- The Bill includes provisions for the establishment of carbon trading markets, the mandatory minimum use of non-fossil fuels, including Green Hydrogen and Green Ammonia as feedstock, and the inclusion of big residential structures in the scope of energy conservation.



What are the main objectives of the bill?

- First, it aims to make **using green energy mandatory** for a **specific** group of industrial, commercial, and even residential consumers.
- They must obtain a predetermined minimum percentage of the energy they consume from renewable or non-fossil fuel sources.
- Secondly, it aims to create a **national carbon market** and ease the trading of carbon credits.

What are the key proposals in the bill?

Obligation to use non-fossil sources of energy:

- The Bill gives the central government the authority to set standards for energy usage.
- The Bill further states that the designated consumers may be required to meet a minimum percentage of their energy needs from non-fossil sources.

Carbon trading:

- The Bill gives the central government the authority to designate a system for trading carbon credits.

- A tradeable permit to emit a certain amount of carbon dioxide is implied by a carbon credit.
- To companies registered under the system and in compliance with its requirements, the central government or any authorized agency may issue certificates for carbon credits.
- The organizations will have the option to buy or sell the certificate. A carbon credit certificate can be voluntarily purchased by anyone else.

Energy conservation code for buildings:

- It gives the central government the authority to establish an energy conservation code for buildings.
- The code specifies minimum requirements for area-based energy use. The utilization of renewable energy sources, energy efficiency standards, and other criteria for green buildings will all be covered by this new code.

Applicability to residential buildings:

- Under the bill, the energy conservation code applies to commercial buildings:
- Constructed after the notification of the code, and
- Having a minimum connected load of 100 kilowatts (kW) or contract load of 120 kilo volt ampere (kVA).
- The new energy conservation and sustainable building code will also apply to the **office and residential buildings** meeting the above criteria.
- The Bill also **empowers the state governments** to lower the load thresholds.

Vehicle and vessel standards:

- For motor vehicles, ships, and other water vessels, industrial units, and structures, energy consumption norms would be established.
- Fuel consumption standards for automobiles and water vessels would be established.
- The new laws would also give the government the authority to forbid the manufacturing or import of any cars or water vessel if they do not meet the established energy criteria, just like they do for appliances and equipment.

Regulatory powers of SERCs: It gives the State Electricity Regulatory Commissions (SERCs) the authority to enforce its regulations. The Bill also states that SERCs may create regulations for carrying out their duties.

Composition of the governing council of BEE: It calls for the establishment of the Bureau of Energy Efficiency (BEE). The Bureau's executive committee consists of 20 to 26 people.

STRONGER CLIMATE TARGETS 2030

Priority: High



Primary Source: The Indian Express

Prepp Prelims Booster: Climate targets

Prepp Mains Booster: Government Policies & Interventions, International Treaties & Agreements. GS3 - Environmental Pollution & Degradation

Context:

- Recently, India improved its 2030 climate change targets by incorporating two of the pledges made by Prime Minister Narendra Modi at the Glasgow Conference a year ago.
- According to India, it is now committing to reduce GDP emissions intensity (emissions per unit of GDP) by at least 45% from 2005 levels and a reduction of 33% to 35% was the previous goal.



INDIA'S CLIMATE TARGETS: EXISTING AND NEW

Target (for 2030)	Existing: First NDC (2015)	New: Updated NDC (2022)	Progress
Emission intensity reduction	33-35 per cent from 2005 levels	45 per cent from 2005 levels	24 per cent reduction achieved in 2016 itself. Estimated to have reached 30 per cent
Share of non-fossil fuels in installed electricity capacity	40 per cent	50 per cent	41.5 per cent achieved by the end of June this year
Carbon sink	Creation of 2.5 to 3 billion tonnes of additional sink through afforestation	Same as earlier	Not clear.

What are India's revised stronger targets?

Emission Intensity:

- India now commits to reducing GDP emissions intensity (emissions per unit of GDP) by at least 45% from 2005 levels.
- Currently, a 33–35 percent reduction was the goal.

Electricity Generation:

- India has also committed to making sure that by 2030, at least half of its installed energy generation capacity will be based on non-fossil fuel sources.

What are the other NDC announced at the Glasgow Summit in 2021?

- Increase India's non-fossil energy capacity to 500 GW (gigawatts) by 2030.
- To reduce India's total projected carbon emissions by 1 billion tonnes (BT) by 2030.
- India to achieve Net Zero Carbon by 2070.

What is the significance of the move?

- The revised Nationally Determined Contributions (NDCs) aims to increase India's contributions to the Paris Agreement's goal of strengthening the international response to the challenge of climate change.
- The NDCs represent each nation's efforts to lower national emissions and prepare for the effects of climate change.

- Such a move will also assist India in establishing growth routes with minimal emissions.
- The highest level of commitment to decoupling economic growth from greenhouse gas emissions will be shown by India's new NDCs.
- The Net Zero target by 2030 set by Indian Railways alone will result in a yearly emissions reduction of 60 million tonnes as a result of the updated NDCs.

What was Glasgow Summit 2021?

- The 26th United Nations Climate Change Conference, or COP26, took place at the SEC Centre in Glasgow, Scotland, United Kingdom, from October 31 to November 13, 2021. Hence it was known as Glasgow Summit 2021.
- It is also known as the 2021 United Nations Climate Change Conference.
- It was the 26th Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC), the third meeting of the parties to the 2015 Paris Agreement (designated CMA1, CMA2, and CMA3), and the 16th meeting of the parties to the Kyoto Protocol (CMP16).

What are the Highlights of Glasgow Summit 2021?

New International and National Goals:

- The Glasgow Summit asked nations to think about enhancing their 2030 goals by COP27, which will be held in Egypt in 2022.
- The summit's goal was to limit global warming to +1.5°C, and it succeeded in persuading around 140 nations to set goals for achieving net-zero emissions by specific dates.
- The accomplishment is notable because, according to the Paris Agreement, poor nations only agreed to cut the "emissions-intensity" of GDP, not emissions.
- India has likewise declared its 2070 net-zero goal and joined the agreement.

Glasgow Breakthrough Agenda:

- The Glasgow Breakthrough Agenda, supported by 42 countries, is a potentially significant development that came out of COP26 (but outside of the COP procedure) (including India).
- In fields including clean electricity, transportation via road, steel, and hydrogen, this is a joint effort to hasten the development and application of green technology.

Phasing-Down Coal Consumption:

- The earliest possible phase-out of coal is preferred because it is the dirtiest fossil fuel.
- Developing nations have rejected the European Union's strong drive for its phase-out.
- At the COP26, a "phase-down" of coal-based electricity was referred to as the intermediate road, as proposed by India.

What are the initiatives taken by India to mitigate climate change?

- **National Action Plan on Climate change:** In 2008, the National Action Plan on Climate Change (NAPCC) was unveiled by the Prime Minister's Council on Climate Change. It works to educate members of the public, various government organizations, scientists, industry, and communities about the threat posed by climate change and the solutions to combat it. The NAPCC is made up of eight national missions that collectively provide comprehensive, long-term, integrated strategies for achieving significant climate change goals.
- **National Adaptation Fund for Climate Change:** With over \$200 million, India established the National Adaptation Fund for Climate Change (NAFCC). It makes an effort to support efforts at adaptation that can decrease the adverse effects of climate change.
- **National Solar Mission:** The National Solar Mission is one of the eight significant national initiatives that make up India's National Action Plan on Climate Change. The program was inaugurated as the Jawaharlal Nehru National Solar Mission on 11 January 2010 with a target of 20 GW by 2022. This was later increased to 100 GW in the 2015 Union budget of India.
- **National Action Programme to Combat Desertification:** India has developed a 20-year comprehensive National Action Programme to address the problem of desertification within the nation (NAP). The objectives include:
 - Management, prevention, and mitigation of drought
 - based on a community-based approach to development
 - Encourage the enhancement of the quality of life in neighborhood communities.
- **Reforms in the transportation sector:** With the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles Scheme (FAME), India is hastening the adoption of e-mobility.
- The present programs are supplemented by a voluntary vehicle scrapping policy to phase out outdated and unsafe automobiles.
- **Promoting Electric vehicles in India:** A small number of nations, including India, have pledged their support for the global EV30@30 initiative, which seeks to have at least 30% of new vehicle sales be electric by 2030.
- At the UNFCCC COP26 in Glasgow, India committed to upholding the five "Panchamrit" aspects for combating climate change.
- **Industries' Contribution to the Low-Carbon Transition:** India's public and private sectors are already making significant contributions to addressing the climate crisis, made possible by rising investor and customer awareness as well as expanding regulatory and transparency requirements.
- **Promotion of Green hydrogen as an Energy alternative:** India launched the National Hydrogen Mission, intending to promote Green Hydrogen as an energy alternative and reduce fossil fuel consumption.
- **Other Initiatives:** Other initiatives include the UJALA scheme, National Biofuel Policy, National Mission for Clean

Ganga, National Air Quality Scheme, FAME scheme to promote electric and hybrid vehicles, and others, etc.

- **International Initiative:** India has been party to many international treaties, agreements, and protocols which were aimed at addressing climate change. This includes the Kyoto Protocol, Paris Agreement, Montreal Protocol and Kigali Agreement, and many others.

HAVE COASTAL ECOSYSTEM NORMS BEEN VIOLATED?

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Comptroller and Auditor General, coastal ecosystems

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

Context:

- The Comptroller and Auditor General (CAG) of India recently submitted a report to Parliament regarding the effectiveness of the Union Environment Ministry's efforts to protect India's coastal ecosystems.
- The findings from an audit of Conservation of Coastal Ecosystems during 2015–20 are included in this most recent report.

Coastal Zone Regulations

CRZ - I
Ecologically Sensitive Areas

CRZ-II
Urban (developed) areas up to the shoreline of the coast

CRZ-III
Rural and urban areas which fall outside CRZ-I and CRZ-II

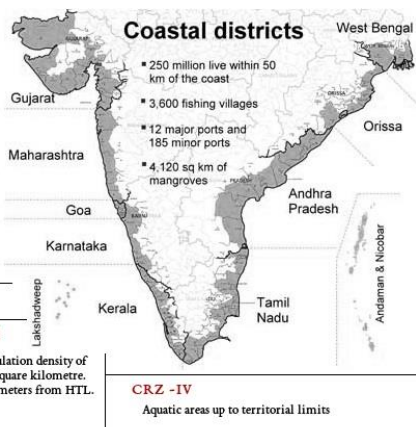
CRZ-III (Rural Area)

CRZ-III A

Densely populated areas with a population density of 261 per square kilometre. A NDZ of 50 meters from HTL.

CRZ-III B

Areas with population density of below 261 per square kilometre. A NDZ of 200 meters from HTL.



What are the key Findings of the Audit report?

- The audit identified several types of breaches.
- National Coastal Zone Management Authority (NCZMA) was reconstituted every few years and had not received notification from the Ministry of Environment, Forest and Climate Change that it was a permanent entity. Due to this, it was acting as an ad hoc body because its membership was not clearly defined.
- The Expert Appraisal Committees (EACs) have occasionally been absent from project discussions.
 - The EAC is a group of top bureaucrats and scientific experts who assess the viability of infrastructure projects and their effects on the environment.
- There were other times when the EAC's membership during the discussions was less than half of its full complement.

- Karnataka had not yet reconstituted the State Coastal Zone Management Authority (SCZMA), while Goa, Odisha, and West Bengal had not yet done so either.
- Local traditional communities were absent from Tamil Nadu's District Level Committees (DLCs). DLCs were not even established in Andhra Pradesh.
- There have also been cases where projects have been permitted despite insufficient Environment Impact Assessment (EIA) studies.

Why did the CAG undertake this audit?

- According to Article 151 of the constitution, the CAG is required to investigate and report on programs that are supported by the government.
- The "pre-audit studies" the CAG conducted revealed widespread CRZ violations in the coastal sections.
- The media had been reporting on instances of illegal construction operations (which reduce coastal space) and wastewater emissions by local governments, businesses, and aquaculture farms, which spurred it to launch a thorough inquiry.

Coastal zone in India:

- India has a 7,516-kilometer coastline, hence the coastal areas have grown to be important for economic development.
- For the country's coastal ecology to be protected, coastal zones must be regulated.

How is the Coastal Zone regulated in India?

- Under the Environment Protection Act of 1986, the Union government has issued notifications to control activities along India's coastline, particularly development.
- The environment ministry has come up with Coastal regulation Zones rules under the Environment Protection Act.
- The Objective of CRZ rules is to protect the coastal ecosystem by regulating the human and industrial activities on the coastlines.
- State Governments are responsible for preparing Coastal Zone Management Plans (CZMP) and Implementation of CRZ rules.

What is CRZ Notification 2019?

To monitor and regulate infrastructure activities, the Coastal Regulation Zone Notification (CRZ) 2019 divides the coastal region into various zones. As follows:

CRZ-I:

- CRZ-I includes environmentally delicate places such as mangrove swamps, coral reefs, sand dunes, maritime parks, sanctuaries, reserve forests, and wildlife habitats.
- Between high tide and low tide lines are where the coastal control zone regions of CRZ-I are located.
- The high tide line is the point at which the land and the water's surface converge when the tide is at its highest point.
- The low tide line is the line on the ground where the spring tide's lowest tide of water contacts.

CRZ-II:

- It consists of the built-up regions that are inside the current municipal boundaries and extend up to the shoreline.
- This zone prohibits the construction of unauthorised constructions.

CRZ-III:

- Localities that are generally undeveloped and do not fit into the aforementioned categories, such as rural areas, are included in CRZ-III.
- In accordance with this coastal management zone, only particular activities relating to agriculture or designated public utilities are allowed.

CRZ-IV:

- The zone includes areas of the tidally-influenced water bodies and includes water areas from the low tide line up to the territorial limits.
- In this zone, it is legal to engage in activities like fishing and other related services.

What are the implementing agencies?

The three institutions responsible for the implementation of the CRZ are:

- At the Centre: National Coastal Zone Management Authority (NCZMA),
- At the coastal State and Union Territory: State/Union Territory Coastal Zone Management Authorities (SCZMA/UTCZMA),
- At Coastal District: District Level Committees (DLCs) in every district that has a coastline.

What is the necessity of regulating coastal zones?

- Protection of ecologically sensitive areas, such as mangrove swamps and coral reefs that serve as a barrier against cyclones and tsunamis
- Enhancing coastal populations' quality of life, particularly fishing communities
- Resilient strategies for reducing the effects of climate change and strong cyclones
- To strike a balance between growth and coastal environment preservation.

THE DEVELOPMENT OF MOUNTAIN AREAS OVER THE YEARS HAS UPSET THE ECOLOGICAL BALANCE

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Development in Mountains

Prepp Mains Booster: Geographical features and their location changes in critical geographical features (including water bodies and ice caps) and in flora and fauna and the effects of such changes; Inclusive growth

Context:

- Recently, flash floods and landslides brought on by severe rains in Himachal Pradesh and Uttarakhand over the weekend, at least 25 people died.

- Bridges and automobiles were washed away by currents, several major thoroughfares were blocked by debris.



Affects of upsetting ecological balance:

- While the surface effects of these rains are mortality and property devastation, there are a number of secondary repercussions with long-term downstream effects.
- **Loss of productive hours:** For example, schools and transportation facilities are abruptly shut down, resulting in lost working hours.
- **Livelihoods:** Cattle and young trees are allowed to perish, which damages livelihoods, impairs family finances, and strains the treasury.
- Around 75% of India's yearly rainfall is concentrated into four months by the monsoon, which also unevenly waters the country's extremely varied topography.
- Therefore, it is inevitable that some places will be far more vulnerable and experience a disproportionate amount of the effects of climate change.

How development has made mountain areas more vulnerable to natural disasters?

- According to a recent report from Himachal Pradesh's Department of Environment, Science and Technology, **development** has made mountain areas even more vulnerable to natural disasters **by disrupting the ecological balance of numerous physical processes over time.**
- Although the inherent risks of building infrastructure in hills and unstable terrain are widely acknowledged, authorities frequently **ignore these risks** in the sake of balancing public demands for greater infrastructure and services.
- Cloudburst-like events, high-energy cyclones, and droughts are **all on the rise** as a result of the disruption of monsoon rain patterns.

Steps taken by government

- The government has **improved the early warning forecasting system** as one of its strategies.
- Districts now receive weather forecasts from the India Meteorological Department every two weeks, every week, and even every three hours.

- These include **integrated alerts** about lightning and flash flood alerts.

Challenges

- Inaccuracy in weather prediction:** Not all of these are correct, and frequently, they are not shared in advance so that authorities can become ready.
- Evacuation and rehabilitation:** State authorities have been able to evacuate and rehabilitate the most vulnerable in recent years because to advances in early warnings for approaching cyclones, but similar success has not been seen for floods.

Way Forward

- Before additional expansion is allowed, it would be crucial to come up with plans for the consolidation of urban communities that are already fully equipped and are governed by land-use planning that is incorporated into the municipal master plan.
- The fact that these communities' structures are dependent on the nature in the area makes it crucial to take aesthetics and **seismic fragility** into mind.
- The establishment of **powerful regulatory institutions** in the towns will be necessary for all of this.
- It is also obvious that in order for the area to adapt to climate change and its variability, growth will be essential.
- This is the chance to create a resilient economy using innovative methods of development based on the ecosystem, traditional knowledge, and culture of the area.

YOUTH EMPLOYMENT DECLINED IN INDIA, SAYS ILO REPORT

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: International Labour Organisation (ILO)

Prepp Mains Booster: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Context:

Recently, the International Labour Organisation (ILO) released the Global Employment Trends for Youth 2022 report.

What is the Global Employment Trends for Youth Report?

- The report 'Global Employment Trends for Youth 2022: Investing in transforming futures for young people offers an update on the most important trends and indicators in the youth labour market.
- The report focuses on the COVID-19 crises' effects as well as how targeted investments over time in the green, blue, digital, creative, and care economies can aid in a human-centred recovery and help young people find better jobs.

What are the key highlights of the report?

The COVID-19 Pandemic's Impact

- The estimated total number of young people without jobs worldwide will be 73 million in 2022, down from 2021's figure of 75 million but six million more than the pre-pandemic level of 2019.
- The report concludes that the pandemic has made the numerous labour market difficulties affecting people between the ages of 15 and 24 worse.

Gender Gap:

- Young women have a worse situation than young men since they have a lower employment-to-population ratio (EPR).
- In contrast to 40.3% of young males, just 27.4% of young women are expected to be employed globally in 2022.
- As a result, young men have a nearly 1.5-times higher likelihood of being employed than young women.

Regional Variations:

- It is anticipated that the recovery in young unemployment will differ between low- and middle-income countries and high-income ones.
- By the end of 2022, only high-income nations are predicted to have young unemployment rates that are comparable to those of 2019.

What are the key findings with respect to India?

- According to the research, the youth employment participation rate in India decreased over the first nine months of 2021 compared to its value in 2020 by 0.9 percentage points.
- For extremely young people between the ages of 15 and 20, the situation is particularly dire.
- According to the report, 18 months were spent with school closures in India, and of the 24 crore students enrolled, just 8% of those in rural areas and 23% of those in urban areas had adequate access to online education.
- It also stated that very few young women in India participate in the labour market and that in 2021 and 2022, young women in India lost more relative employment than did young males.
- It was also mentioned that young women and girls are particularly prone to abuse and that domestic employment is a very informal industry in India with relatively poor wages.

International Labour Organisation:

- The ILO was established in 1919 as a result of the Treaty of Versailles, which put an end to World War I, to represent the idea that social fairness must be the foundation of any durable, global peace.
- The ILO was elevated to the status of a specialised agency of the UN in 1946.
- The ILO is committed to advancing social fairness and widely acknowledged labour and human rights.
- Headquarter: Geneva, Switzerland.

Objectives:

The ILO has four strategic goals:

- To advance and realise standards, fundamental values, and labour rights;

- Increase the opportunity for men and women to find respectable work and earn a living,
- Increase the reach and efficacy of social protection for all, Strengthen the triangular relationship and social interaction.

SCIENTISTS TO RESURRECT EXTINCT TASMANIAN TIGER

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Tasmanian Tiger

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation; Awareness in the field of Bio-technology

Context:

Recently, scientists from the United States and Australia started a project to resurrect extinct Tasmanian Tiger using gene-editing technology. The aim of this de-extinction project is to reintroduce this extinct animal back into its native habitat in Tasmania to revive the region's lost ecological balance.

About Tasmanian tiger

- Tasmanian tiger (*Thylacinus cynocephalus*) was a marsupial mammal. It was the only animal in the *Thylacinidae* family to survive in modern times.
- **Geographical presence:** It was widespread over continental Australia, extending North to New Guinea and south to Tasmania Island.
- It had disappeared from mainland Australia over 2000 years ago and later was confined to Tasmania till its extinction.

Marsupials

- They are pouched mammals. They give live birth, but do not have long gestation periods like placental mammals.
- Their members are born incompletely developed and are typically carried and suckled in a pouch on the mother's belly.

- **Features:** It earned its nickname Tasmanian Tiger because of the stripes along its back. It was also known as the Tasmanian Wolf as it had a dog-like head.
- It was a slow-paced carnivorous and ate kangaroos, other marsupials, small rodents and birds. It usually hunted alone or in pairs at night.
- **Extinction:** It went extinct in the wild in the 1930s and the last one died in captivity in Tasmania's Hobart Zoo in 1936.

- It went extinct mainly because of over-hunting by humans, diseases and competition from the Dingo (*Canis lupus*), a wild dog native to Australia. It was also widely persecuted because it was believed to be a threat to sheep.

Impact of its extinction

- Tasmanian tiger was the region's apex predator (at the top of the food chain) and played a significant role in balancing the ecosystem of its habitat by removing the weak animals and maintaining species diversity.
- Its disappearance from the food chain resulted in Trophic Downgrading resulting in loss or exponential growth of other species and also invasive species and wildfires.

Trophic Downgrading

- It is a process of causal degradation of an ecosystem that occurs when higher trophic level animals are removed from the food chain.
- It results in disruption of biogeochemical cycles, wildfires, growth of invasive species, and carbon de-sequestration, among other effects.

How will the de-extinction project of Tasmanian tiger work?

- Scientists will be using a genome sequenced from a DNA extracted from a 108-year-old Tasmanian Tiger specimen held in a museum.
- This genome will be compared with the closest living animal of the species– the Fat Tailed Dunnart — to identify all the differences.
- Once all the genetic differences are identified, scientists will engineer the Tasmanian Tiger's living cell DNA, thus essentially genetically engineering the extinct species back.
- De-extinction will not be complete until the success of the rewilding process – reintroducing the animal to its native habitat — to stabilise the fragile ecosystem of Tasmania.

What is de-extinction?

- It is also known as resurrection biology. It is the method of creating a species that went extinct or is endangered.
- It uses methods such as cloning, but with advancement of technology-genome editing and selective breeding are now widely used.
- Pyrenean ibex, a subspecies of Spanish ibex, was the first extinct animal to be successfully resurrected using somatic cell nuclear transfer (SCNT), even though the baby Ibex died minutes after its birth from lung defect.

WHY FISHERFOLK IN KERALA ARE PROTESTING ADANI'S UNDER-CONSTRUCTION VIZHINJAM PORT

Priority: Low

Primary Source: Indian Express

Prepp Prelims Booster: Vizhinjam port

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation: Infrastructure: Energy, Ports, Roads, Airports, Railways etc

Context:

- The **Vizhinjam International Transshipment Deepwater Multipurpose Seaport** is an ambitious project taken up by Government of Kerala.
- It is designed primarily to cater container transshipment besides multi-purpose and break bulk cargo. The port is being currently developed in landlord model with a Public Private Partnership component on a design, build, finance, operate and transfer ("DBFOT") basis.

What is the demand of Fisherfolks?

- The protesters' top demand is the halting of the building of a deepwater port and container transshipment facility at Vizhinjam, which is located outside of Thiruvananthapuram, and the completion of an appropriate environmental impact study.

- (i) **rehabilitating families** whose homes were lost to sea erosion;
- (ii) taking effective measures to **reduce coastal erosion**;
- (iii) providing **financial assistance to fishermen** on days when weather warnings are issued;
- (iv) providing **compensation to families of fishermen** who lose their lives in accidents;
- (v) subsidising kerosene; and
- (vi) **developing a mechanism to dredge** the Muthalappozhi fishing harbour in Anchuthengu

The government has given in to all demands with the exception of subsidising kerosene and stopping the port's construction. It has committed to locating housing for displaced families before Onam.

What are the concerns?

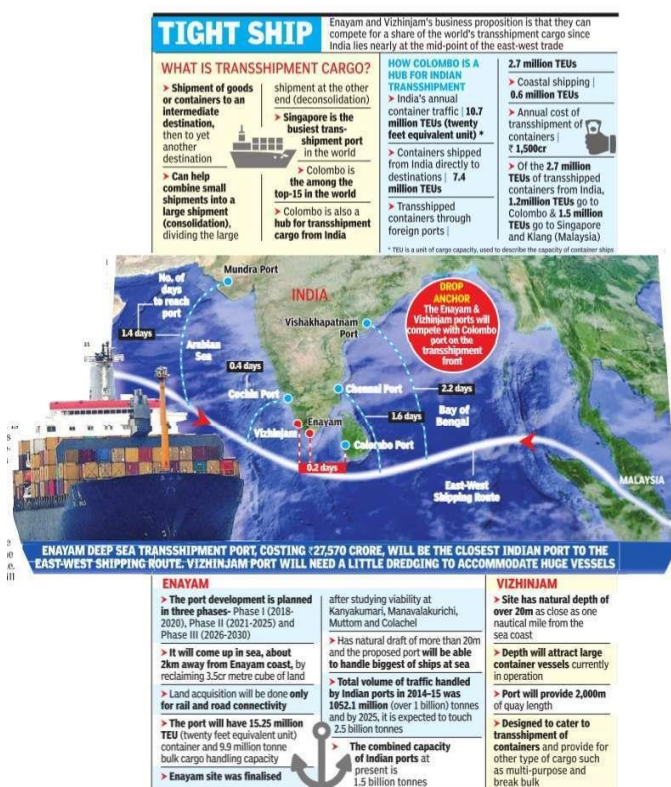
- The local fishermen worry that the port's proximity to the fishing harbor may affect the tranquility of the sea.
- There are worries that the proposed shipping channel may cause people to lose their jobs.
- Fuel prices have grown as a result of fishermen having to travel farther offshore for their catch since construction started.
- They are affected because the government removed the kerosene subsidy.
- Another worry is that the project could place the government in a "debt trap" and end up like Kochi's Vallarpadam Terminal, which has been operating at a loss for more than ten years.

What is the significance of the port?

- The port will be equipped with 30 berths and able to accommodate enormous "megamax" container ships.
- The ultramodern port, which is near to important international shipping lanes, would bolster India's economy.
- The port is anticipated to compete for a portion of the trans-shipment business with Colombo, Singapore, and Dubai.

What are the issues faced by ports in India?

- High ship turnaround time:** India's ports experience high ship turnaround time. For instance, the typical ship turnaround time at Singapore is under a day. However, it takes more than two days in India.
- Container traffic and congestion:** a lack of handling equipment, and ineffective operations all contribute to port congestion, which is a serious issue. For instance, the port of Nhava Sheva
- Mixture of suboptimal transport modes:** Transport modal mix is not optimum since the necessary infrastructure for evacuation from large and minor ports is lacking.
- Limited Hinterland Linkages:** Due to limited hinterland connectivity by rail, road, motorways, coastal shipping, and inland waterways, there is inefficiency. As a result, moving



The community has also made six additional demands:

goods and paying for transportation become more expensive.

- **Lengthy Custom Clearance Procedure:** Inspections and scrutiny continue to be drawn out for cargo and other shipping operations, despite the fact that India's customs processes are quickly growing paperless and becoming digital.
- **Inadequate infrastructural and technological problems:** this involves
 - Lack of adequate depth, suitable length, berth count, and berthing facilities for proper berthing of the vessels at the major as well as on non-major ports.
 - The majority of non-major ports lack the necessary material handling tools that would enable a speedy turnaround.
 - absence of huge volume handling equipment, lack of suitable facilities, IT systems, and navigational aids.
- **Regulatory issues:** Major and minor ports are governed by different authorities. The regulatory system is also strict.
- Foreign-flagged ships are not permitted to transport cargo between Indian ports because such ports are still reserved for domestic shippers.
- Purchasing land and obtaining environmental approvals.
- **Problems with the PPP Model:** Private operators are typically subject to stringent restrictions under the majority of port PPPs, usually in the form of the kinds of goods they are permitted to handle.
- Up until recently, there were still issues with tariff control and the lack of a dispute settlement process.

What are the initiatives taken by the government?

- With the **Sagarmala initiative**, ports are modernised and developed, port connection is improved, coastal communities are supported, and port-related industrialization is encouraged.
- Sagarmala intends to **lower logistical costs** for both domestic and international trade. In the modal mix, it also seeks to double the proportion of water transportation.
- The **Jal Marg Vikas Project (JMVP)** is an initiative to expand India's national waterways.
- It was put into place as a step toward national integration with the intention of lowering carbon emissions, congested roads and rails, and resource depletion to a minimum.
- In order to include a list of projects and infrastructure sub-sectors, including inland waterways, for which the **Central Road Fund (CRF)** could be used, the Ministry of Finance revised the Central Road Fund Act, 2000.
- The goal of the **Draft Indian Ports Bill 2021** is to consolidate state governments' current management of minor ports.
- **The Inland Vessels Bill 2021** seeks to replace the many laws currently in place in each state with a unified national law.

- There will be no need for state permissions because the registration certificate will be accepted all across the nation.
- Additionally, it creates a single database for keeping track of crew and vessel details via an online portal.
- **Marine Aids to Navigation Bill 2021:** The Parliament approved it, including international requirements, technology advancements, and best practises from around the world.

TRADITIONAL KNOWLEDGE DIGITAL LIBRARY

Priority: Medium



Primary Source: PIB

Prepp Prelims Booster: TKDL

Prepp Mains Booster: Issues relating to Intellectual Property Rights.

Context:

Recently, the Union Cabinet approved widening access of the Traditional Knowledge Digital Library (TKDL) database to all users, besides patent offices. Before it, access to the TKDL database was restricted only to 14 Patent Offices worldwide for purposes of search and examination.

What is Traditional Knowledge Digital Library (TKDL)?

- It is a **digital repository** dedicated to traditional knowledge, particularly medicinal plants and formulas utilised in Indian medical systems.
- Its goal is to safeguard the country's historic and traditional knowledge from exploitation through biopiracy and illegitimate patents by digitising it and classifying it according to worldwide patent classification methods.
- It was established in 2001 by the **Council of Scientific and Industrial Research (CSIR)** and the Department of Indian Systems of Medicine and Homoeopathy (now Ministry of AYUSH).
- It seeks to prevent the misappropriation of a country's traditional medicinal knowledge through patenting worldwide.
- It comprises information in a digitised format regarding existing traditional literature and selected formulas from traditional Indian medicine systems such as Ayurveda, Unani, Siddha, Yoga, and Sowa Rigpa.
- The selected formulas include plant, animal, and mineral-derived components to treat a range of illness problems, as described in the literature of traditional Indian medical systems.
- This information is available in five international languages like English, French, Spanish, German, and Japanese and was only available at 14 Patent Offices worldwide for search and examination (now open to all).

What is the significance of widening user access to TKDL?

- It will drive research & development, and innovation based on India's valued heritage in diverse fields. Thus, serve as an important source to advance knowledge and technology frontiers.
- It will also promote thought and knowledge leadership envisaged as Bharatiya Gnana Parampara, under New Education Policy (NEP) 2020.
- It will enable integrating and co-opting traditional knowledge with current practices, in a bid to enhance innovation and trade.

What is Traditional Knowledge?

- It refers to the knowledge, know-how, innovations, skills, and practices of indigenous peoples. It is developed from experience gained over the centuries and adapted to the local culture and environment.
- It is sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity. It is often transmitted orally from generation to generation.

Steps taken by Government for Protecting Traditional Knowledge

- International Conventions:** India is a signatory to the Convention on Biological Diversity (1993) and the Nagoya Protocol (2010), which are concerned with trade-in bioresources and the use of traditional knowledge.
- Legal:** Biological Diversity Act, 2002 was enacted for preservation and maintenance of TK along with equitable sharing of benefits arising from the use of traditional knowledge with communities.

PM MODI URGED INDIANS TO ADOPT THE "PANCH PRAN"

Priority: Low

Primary Source: Indian Express

Prepp Prelims Booster: Panch Pran

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Context:

In his Independence Day speech, PM Modi urged Indians to adopt the "Panch Pran" - a set of five vows — by 2047, when the nation will mark its 100th anniversary of independence. The first vow is to make India a developed country in the next 25 years.

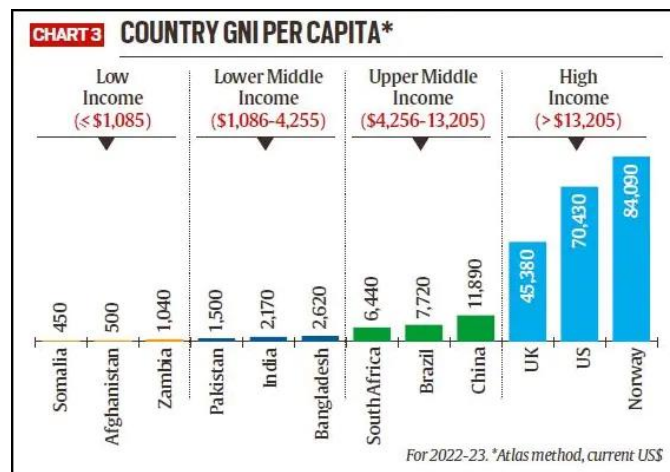
Panch Pran (5 vows) of Amrit Kaal-

- Goal of Developed India**
- Remove any trace of colonial mindset**
- Take pride in our roots**
- Unity**
- Sense of duty among the citizens**

What does it mean to be a developed country?

- A developed country is industrialized, has a developed economy, high standards of living, and cutting-edge technological infrastructure.
- A sizable portion of its population has access to basic requirements including quality education, healthcare, and transport.
- Countries are classified into three broad categories: **developed economies, economies in transition, and developing economies**, as per the 'World Economic Situation and Prospects' of the United Nations.
- Based on per capita gross national income (GNI), countries have been grouped as **high-income, upper-middle-income, lower-middle-income, and low-income**, by the UN.

Low-income countries	With less than \$1,085 GNI per capita
Lower-middle-income countries	With GNI per capita between \$1,086 and \$4,255
upper-middle-income countries	With between \$4,256 and \$13,205
High-Income countries	More than \$13,205



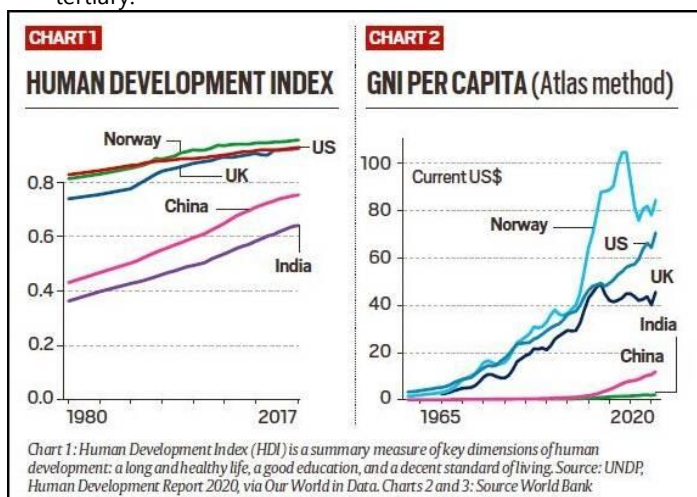
Problems with United Nations' Classification

- One can argue that the UN classification is not particularly accurate and, as a result, has little analytical usefulness.

- Only the top three nations shown in chart 3—the US, the UK, and Norway—are considered developed nations.
- Although there are 31 developed countries, the rest of them excluding 17 “economies in transition”, is categorized as “developing” countries.
- There are many other issues (see chart for placement) like, China’s per capita income is 26 times that of Somalia’s while Norway’s is just about seven times that of China’s.
- Also, countries such as Ukraine, which has a per capita GNI of \$4,120 are designated as “economies in transition”. Notably, its per capita GNI is a third of China’s.

What is India’s Position?

- Presently, India lags far behind both the so-called developed countries and some of the developing countries.
- The discussion is mostly centered around the absolute level of GDP (gross domestic product). By that parameter, India is one of the biggest economies in the world — although the US and China are far ahead.
- To be considered a “developed” country, the average income of a country’s people is more important. However, on per capita income, India is behind even Bangladesh.
- China’s per capita income is 5.5 times that of India, and that of the UK is around 33 times.
- Disparities in per capita income are reflected in the overall quality of life in various countries.
- India has shown improvement in HDI metrics.
- Life expectancy at birth has increased from around 40 years in 1947 to around 70 years now.
- India has also significantly improved enrolment at all three levels of education— primary, secondary, and tertiary.



How far does India stand from the goal?

- According to a 2018 World Bank report on India, “Even though India is the world’s third-largest economy in purchasing power parity (PPP) terms, most Indians are still relatively poor compared to people in other middle income or rich countries. Ten percent of Indians, at most, have consumption levels above the commonly used

threshold of \$10 (PPP) per day expenditures for the global middle class.”

- As per the report, by 2047, at least half its citizens could join the ranks of the global middle class.
- India’s present HDI score is 0.64 which is far lower than that of any of the developed countries in 1980. China attained the 0.64 mark in 2004, and took another 13 years to reach 0.75— the UK was at this level in 1980.
- If we look at the per capita income terms, Norway was at India’s present level in 1966— 56 years ago.

Science and Technology- Developments and their Applications and Effects in Everyday Life. Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology. Awareness in the fields of IT, Space, Computers, Robotics, Nano technology, Bio-technology and Issues relating to Intellectual Property Rights.

NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: NIPAM

Prepp Mains Booster: Issues relating to Intellectual Property Rights

Context:

Recently, National Intellectual Property Awareness Mission (NIPAM) achieved the target of imparting Intellectual Property (IP) awareness and basic training to 1 million students. This target was achieved by the end of July 2022, ahead of the set deadline - 15 August 2022.



What is the National Intellectual Property Awareness Mission (NIPAM)

- It is a pan-India mission launched in 2021 to provide awareness on intellectual property and its rights (IPR) to 1 million students across the country.
- Its objective is to inculcate the spirit of creativity and innovation to students of higher education (classes 8 to 12) and ignite and inspire the students of college/universities to innovate and protect their creations.

Implementing Agency of NIPAM

- It is implemented by the Intellectual Property Office, the Office of Controller General of Patents, Designs and TradeMarks (CGPDTM), Ministry of Commerce and Industry.

Target Achieved

During the period December 2021 to July 2022, NIPAM achieved following milestones:

- Number of participants (students/faculty) trained on IP:** 10,05,272
- Educational institutes covered:** 3662
- Geographical coverage:** 28 states and 7 Union Territories

What is the significance of IP awareness?

- Aids in giving recognition and protection to intellectual capital developed in the country, enabling IP producers to take advantage.
- Encourages and extends support to innovation and creativity, thus contributing towards societal cultural and economic progress.
- Encourages inventors, artists and authors, as well as ensures sustainability of research and development.

What are Intellectual Property Rights (IPR)?

- Intellectual property (IP) pertains to any original creation of the human intellect such as artistic, literary, technical, or scientific creation.
- IPR are the legal rights given to inventors over the creation of their minds to protect his invention or creation for a certain period of time.
- IPR are outlined in Article 27 of the Universal Declaration of Human Rights, which provides for the right to benefit from the protection of moral and material interests resulting from authorship of scientific, literary or artistic productions.
- The importance of IP was first recognized in the Paris Convention for the Protection of Industrial Property (1883) followed by the Berne Convention for the Protection of Literary and Artistic Works (1886). Both of these treaties are administered by the World Intellectual Property Organisation (WIPO).

Types of IPR:

- Copyrights:** The rights are granted to authors of literary and artistic works (such as books, other writings, musical compositions, sculpture, paintings, computer programs and films etc.) for a minimum period of 50 years after the death of the author.
- Industrial property:** It grants protection to distinctive signs, in particular trademarks and geographical indications.

(i) Trademarks: It is any mark, name, or logo used in commerce of any good or service. It is used to identify the producer or provider of that good or service.

(ii) Geographical Indications (GIs): It identifies goods originating in the specific territory of a country or a region or locality in that territory where a given reputation, quality or other characteristic of the good is essentially attributable to its geographical origin.

- Industrial designs and trade secrets:** It constitutes the ornamental aspect of an article. It may consist of three dimensional features, such as the shape of an article, or two dimensional features, such as patterns, lines or colour.

INDIA EYES SELF-SUFFICIENCY IN UREA WITHIN 4 YEARS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Biotech Rice

Prepp Mains Booster: Issues related to Direct and Indirect Farm Subsidies

Context:

India is hoping to end its reliance on imported urea within the next four years (by 2025) by expanding output of a locally developed Nano Liquid Urea.

What is Nano Liquid Urea?

- Urea is a chemical nitrogen fertiliser, white in colour, which artificially provides nitrogen, a major nutrient required by plants.
- Nano Liquid Urea is essentially urea in the form of nanoparticles (from 20-50 nm) developed to replace conventional urea.
- It was developed and patented by Indian Farmers Fertiliser Cooperative Limited's (IFFCO) Nano Biotechnology Research Centre (NBRC) at Kalol, Gujarat.
- It is sprayed directly on the leaves and gets absorbed by the plant, rather than indiscriminate spreading seen in conventional urea usage.

Why is there a need for self-sufficiency in the Urea?

- India has been importing urea for decades to meet the shortfall in the supply chain. It is the world's largest buyer of urea and di-ammonium phosphate (DAP).
- In 2022, India has been hit by a sharp rise in global fertiliser prices including urea due to supply disruptions. Costlier raw materials, higher freight charges as well as sanctions on Russia, a major fertiliser exporter, has kept fertiliser prices elevated.
- Agriculture is the mainstay of the Indian economy, as nearly 70 % of our population is dependent on it. Any shortfall in supply or increase in the price of critical agricultural input like fertilisers is bound to have an adverse impact on the overall economic performance of our rural sector.
- Even the food security of the country is also closely linked to sufficient availability of a range of fertilisers, which is subsidised by the Central Government for millions of farmers.

- It is likely that the demand for urea and other fertilisers is not going to come down in the foreseeable future, so remaining dependent on the import of urea in perpetuity is considered a bad idea from the onset. Self-sufficiency in urea will help the government to save nearly Rs. 40,000 crore.

What are the advantages of Nano Urea?

- Improved agricultural produce with reduced urea consumption as the efficiency of liquid nano urea is as high as 85-90% in comparison to 25% of conventional urea. For example, application of 1 bottle of Nano Urea can effectively replace at least 1 bag of Urea.
- Provide for targeted supply of nutrients to crops, as they are absorbed by the stomata, pores found on the epidermis of leaves.
- Increase crop productivity, and reduce soil, water, and air pollution.
- Help in reducing the unbalanced and indiscriminate use of conventional urea.

Status of Fertilisers Usage in India

- In the last 10 years, India has consumed about 500 LMT of fertiliser per year. The Centre's fertiliser subsidy bill has soared by 62% over the budgeted amount to Rs 1.3 lakh crore in FY21.
- Between 2018-19 and 2020-21, India's fertiliser imports increased almost 8% to 20.33 million tonnes from 18.84 million tonnes. In FY21, more than 25% of urea demand was met through imports.
- Since, non-urea (Muriate of potash, Di- Ammonium Phosphate complex) varieties cost higher, many farmers prefer to use more urea than actually needed.
- India's need for fertilisers has also increased with increasing agricultural output every year. Despite imports, gaps remain between total demand and the availability after indigenous production targets haven't been met.

What are the Government Initiatives related to Urea?

- Nano Urea Production:** Eight new centrally monitored nano urea plants, will start production by November 2025. These plants located in several states, including Karnataka, Uttar Pradesh and Assam will produce about 440 million nano urea bottles per annum, which will be equivalent to 20 million tonnes of conventional urea. Thus, it will help to save approximately 20 million tonnes of urea imports each year.
- Neem Coating of Urea:** The Department of Fertilisers (DoF) has made it mandatory for all the domestic producers to produce 100% urea as Neem Coated Urea (NCU), to improve soil health, reduce usage of urea and prevent diversion.

- New Urea Policy (NUP) 2015:** It aims to maximise indigenous urea production, promote energy efficiency in the urea units and rationalise the subsidy burden on the Central Government.
- New Investment Policy (NIP) 2012:** It was amended in 2014 to facilitate fresh investment in the urea sector and to make India self-sufficient in the urea sector.
- Policy on Promotion of City Compost:** The Central Government of India approved a policy on promotion of City Compost for scaling up production and consumption of city compost.
- Promotion of organic and zero-budget farming**

Government Subsidy on Fertilisers

Subsidy on Urea:

- The Central Government pays subsidy on urea to fertiliser manufacturers on the basis of cost of production at each plant and the units are required to sell the fertiliser at the government-set Maximum Retail Price (MRP).
- This means that farmers buy urea below their normal supply-and-demand-based market rates or what it costs to produce/import them.
- Example:** For instance MRP of neem-coated urea is fixed by the government at Rs 6000 per tonne, whereas its average cost-plus price payable to domestic manufacturers and importers comes to around Rs 18,000 and Rs 25,000 per tonne, respectively. The difference, which varies according to plant-wise production cost and import price, is paid by the Central Government as subsidy.

Issues created by Urea fertiliser subsidy

- As the Government is heavily subsidising urea, farmers are overusing it compared to other fertilisers. This has led to an imbalance in the consumption of fertilisers and has led to a worsening of soil quality.
- Subsidised urea is getting diverted to bulk buyers or traders.
- It is even diverted to non-agricultural users such as plywood and animal feed makers
- It is being smuggled to neighbouring countries like Bangladesh and Nepal, as it is cheaper in India.

Subsidy on Non-Urea Fertilisers:

- All non-urea fertilisers are being regulated under Nutrient Based Subsidy Scheme.
- The retail price of non-urea fertilisers are decontrolled by the Government, meaning that their prices are fixed by the companies.
- However, the Central Government pays a flat per-tonne subsidy on these nutrients to ensure they are priced at "reasonable levels".

- These decontrolled fertilisers, thus, are priced way above urea and also attract lower subsidies.

Nutrient Based Subsidy (NBS) Scheme

- It has been implemented by the Ministry of Chemicals and Fertilisers (Department of Fertilisers) since 2010.
- Under it, the Government decides a fixed amount of subsidy on an annual basis and is provided on each grade of subsidised Phosphatic & Potassic (P&K) fertilisers depending on its nutrient content.

SUPERCHARGED BIOTECH RICE DEVELOPED USING GENE MODULATION

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Biotech Rice

Context:

Recently, the Scientists from China successfully developed a 'supercharged biotech rice' variety by manipulating its genes to boost grain yields and shorten the growth duration.

How Supercharged Biotech Rice was produced?

- Scientists used a method of **genetic modulation** for adding the same 'native' gene again to the rice plant. In it, a second copy of one of its own single gene called OsDREB1C was added.
- This addition of the same gene helped the rice plant in improving photosynthesis and speed up the flowering process.
- It also helped the plant efficiently absorb more nitrogen fertiliser. It led to boosting its yield by 40%.

What is Genetic Modulation?

- It is a process of molecular biology and genetics of adding the same gene again, and not any foreign one.
- It seeks to temporarily alter gene expression levels without making heritable changes to the underlying cellular DNA.
- It is not a genetic modification (GM) process and neither is the result of a transgenic plant, carrying elements from another donor.

INDIAN ARMY ISSUES RFP FOR PROCURING QUANTUM KEY DISTRIBUTION TECHNOLOGY

Priority: Medium



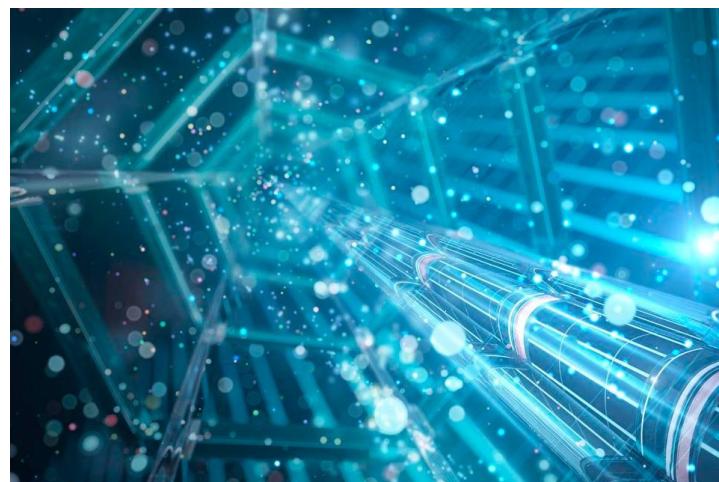
Primary Source: The Hindu

Prepp Prelims Booster: Quantum Key distribution

Prepp Mains Booster: Awareness in the fields of IT, Space, Computers, Robotics.

Context:

Recently, the Indian Army issued a commercial Request for Proposal (RFP) for procurement of Quantum Key Distribution (QKD) technology developed by a Bengaluru-based cybersecurity startup- QNu Labs. QNu Labs has developed the QKD system under the aegis of Innovation for Defence Excellence (iDEX). It has successfully established a quantum communication link over 150 kilometres in terrestrial optical fibre infrastructure.



What is Quantum Key Distribution (QKD) technology?

- It is a mechanism to develop secure communication by using laws of quantum physics to construct a cryptographic protocol (also called quantum cryptography).
- It provides a secure way of distributing and sharing secret keys that are necessary for cryptographic protocols. In QKD, encryption keys are sent as 'qubits' (or quantum bits) in an optical fibre.

What is Qubits?

- Quantum bit (Qubits) is any bit made out of a quantum system, like an electron or photon. Just like classical bits, it may have two distinct states: "0" or "1". But these two distinct states can be 1 and 0 simultaneously at a time, a state known as quantum superposition.

How is QKD technology different from conventional cryptosystems?

- Conventional cryptosystems used for data-encryption rely on the complexity of mathematical algorithms, whereas in quantum communication data-encryption is based on the laws of Physics.
- The QKD system is designed in such a way that if an illegitimate entity tries to read the transmission, it will disturb the qubits. This will generate transmission errors, immediately informing the legitimate end-users.

What are the advantages of QKD technology?

- It helps to create a non-hackable quantum channel by creating unhackable encryption keys that are used for encrypting critical data or voice or video across the endpoints.
- Quantum cryptography is considered 'future-proof' since no future advancements in computational power can break the quantum cryptosystem.

What are the disadvantages of QKD?

- Implementing a QKD system over long distances at high communications rates can cause transmission loss in optical fibres.
- It also falls short in comparison to traditional communication systems in case of lower communication rate.

TRAMETESMAXIMA IIPLC-32 FUNGUS FOR PYRENE BIOREMEDIATION

Priority: Low



Primary Source: Down to Earth

Prepp Prelims Booster: fungus *Trametesmaxima* IIPLC-32

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation; Awareness in the fields Bio-technology.

Context:

Researchers at CSIR-Indian Institute of Petroleum (CSIR-IIP), Dehradun identified a white-rot fungus ***Trametesmaxima* IIPLC-32**, capable of removing toxic, recalcitrant, and carcinogenic polycyclic aromatic hydrocarbons (PAHs) - Pyrene from the environment.



What are polycyclic aromatic hydrocarbons (PAHs)?

- PAHs are chemical compounds containing only carbon and hydrogen—composed in multiple aromatic rings. They occur naturally in crude oil, coal and gasoline.
- They are also released as ubiquitous environmental pollutants by anthropogenic activities such as combustion

of petrogenic fossil fuels, and incomplete incineration of biomass and municipal wastes.

- Pyrene, which possesses four benzene rings, belongs to the highly toxic class of PAHs. It has carcinogenic and mutagenic properties.

What are the harmful impacts of PAHs?

- The rapid pace of economic development and industrialization has resulted in the release of several PAHs into the environment.
- Once released in the environment, they get lodged into the environmental matrices like air, water and soil, resulting in widespread environmental pollution.
- Exposure to PAHs is a primary human health risk of causing cancer and can also cause cardiovascular disease and poor foetal development.

How white-rot fungus *Trametesmaxima* IIPLC-32 is helpful?

- This fungus, growing on dead plants, can biologically degrade pyrene, a toxic PAH, using special enzymes.
- Researchers using a gas chromatographic-mass spectrometer and serotome analysis found that this fungus was able to reduce pyrene concentration by 79.8% to 56.37% within 16 days from the initial levels.
- The serotome analysis of this fungus revealed the presence of 81 extracellular proteins. This knowledge will further help to understand the degradation mechanism of pyrene.

What is the significance of *Trametesmaxima* IIPLC-32 fungus?

- It will cause microbial degradation of pyrene, thereby improving the soil quality and decreasing the pollution level of the soil. Thus, it may prove to be helpful in the bioremediation of pyrene.
- In the future, it can be used for the bioremediation of PAH-contaminated aquatic environments.
- It also shows that to combat pollution caused by rapid pace of economic development and industrialisation, resources that are already present in the environment must be appropriately tapped.

What is Bioremediation?

- It is a branch of biotechnology that uses naturally occurring organisms like microbes and bacteria to break down hazardous substances into less toxic or non-toxic substances.
- It is used to decontaminate affected areas i.e. removal of contaminants, pollutants, and toxins from soil, water, and other environments.

- It may be conducted in situ (at the site of the contamination) or ex situ (away from the site).
- It basically uses living microorganisms to degrade organic contaminants in soil, groundwater and solids. These microorganisms break down contaminants by using them as an energy source.
- In the recent past, bioremediation was used to clean oil spills and contaminated groundwater.

OCEAN THERMAL ENERGY CONVERSION PLANT COMING UP IN LAKSHADWEEP

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster: Ocean Thermal Energy Conversion Plant (OTEC)

Prepp Mains Booster: Science and Technology- Developments and their Applications and Effects in Everyday Life, Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.

Context:

National Institute of Ocean Technology (NIOT) is setting up an Ocean Thermal Energy Conversion Plant (OTEC) with a capacity of 65kW in Kavaratti, Lakshadweep islands. This plant will power the 1 lakh litre per day low temperature thermal desalination plant, which converts seawater into potable water.



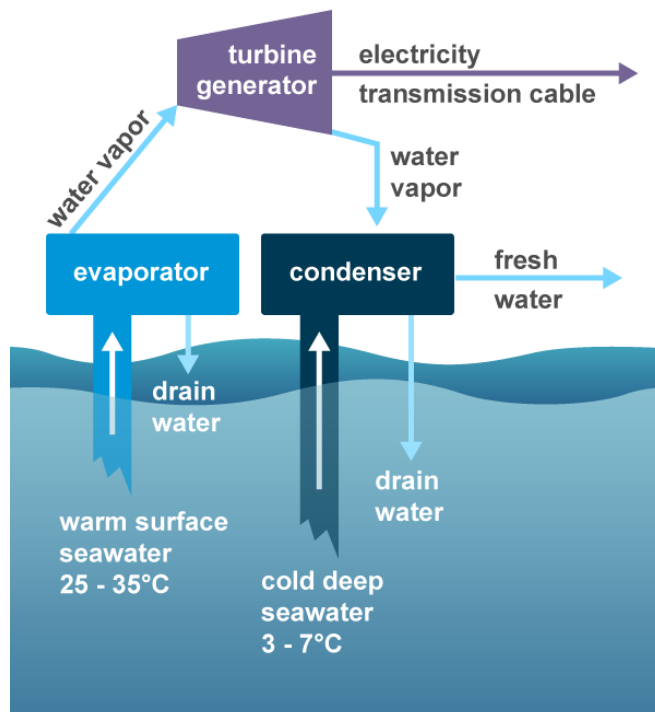
What is an Ocean Thermal Energy Conversion Plant (OTEC)?

- OTEC is a process for producing energy and generating electricity by harnessing the temperature differences (thermal gradients) between warm ocean surface waters and cold deep ocean waters.

- Energy from the sun heats the surface water of the ocean. Due to this solar heating, surface water in tropical regions can be much warmer than deep water. This temperature difference is used to produce electricity and to desalinate ocean water.

How does OTEC work?

- OTEC systems use a temperature difference (thermal potential) to power a turbine to produce electricity. Warm surface water is pumped through an evaporator containing a working fluid.
- This warm water vaporizes the working fluid which drives the generator/turbine.
- Then, vaporised fluid is turned back to a liquid after it is cooled in a condenser with cold ocean water pumped from the deeper ocean.



What are the advantages of OTEC?

- It is renewable energy.
- It is an environment friendly system to supply electricity without the discharge of greenhouse gases.
- It can supply desalinated water for island communities having very few sources of fresh water.
- **Significance for India:** India is geographically well-placed for deploying this system and has total OTEC potential of 180,000 MW.

What are the disadvantages of OTEC?

- It needs a constant supply of cold and warm water. So OTEC plants can be built only in tropical areas.

- Its construction in the ocean may cause damage to onshore marine ecosystems and reefs.
- It is capital intensive as this technology has been tested only in small-scale.
- Continuous discharging of cold and warm sea water can cause habitat disruption in marine ecosystems.

About National Institute of Ocean Technology (NIOT)

- It is an autonomous institute under the Union Ministry of Earth Sciences.
- It was established in November 1993 and is based in Chennai, Tamil Nadu.

Objectives

- Develop world class technologies and their applications for sustainable utilization of ocean resources.
 - Provide value added, competitive technical services and solutions to organizations working in the oceans.
- Develop knowledge base and institutional capabilities in India for management of ocean resources and environment.

GENERAL STUDIES 4

ETHICS CASE STUDY: Public/Civil Service Values and Ethics in Public Administration: Status and Problems; Ethical Concerns and Dilemmas in Government and Private Institutions; Laws, Rules, Regulations and Conscience as Sources of Ethical Guidance; Accountability and Ethical Governance; Strengthening of Ethical and Moral Values in Governance; Ethical Issues in International Relations and Funding; Corporate Governance.

ENVIRONMENTAL CLEARANCE TO RIL PLANT AT JAMNAGAR

Context:

- Recently the ministry of Environment, forest and climate change has given environmental clearance to 'modification of reliance refinery complex' in Jamnagar.

What is the Issue with the modification of the refinery complex?

- Reliance industry operates a petroleum refinery complex at Moti Khavdi Village in Jamnagar district of Gujarat.
- It is an integrated petroleum refinery in the petrochemical complex of reliance which also has a cogeneration captive power plant.
- The plant was being expanded in its capacity and this has to be done through capacity maximization and establishment of new units.

- For this, Reliance Industries Limited (RIL) entered into agreements with leading technology companies from Germany, Israel, UK and USA.
- The environmental Impact Assessment report has been prepared by NEERI and Gujarat Pollution Control Board (GPCB) has provided 'No Objection Certificate'.

What is EIA?

- Environmental Impact Assessment is a process of assessing the environmental effects of the project or development proposal.
- It also takes into account the positive as well as negative socio-economic, cultural and health effects.
- Under the Environmental (Protection) Act 1986, the Union Ministry of Environment and Forests issued an EIA notification on January 27, 1994, requiring Environmental Clearance (EC) for any expansion or modernization of any activity, as well as the establishment of new projects listed in Schedule 1 of the notification.
- In September 2006, the Ministry of Environment, Forests, and Climate Change (MoEFCC) announced new EIA regulations.
- The new legislation has placed the burden of project clearance on the state government, depending on the project's size and capability.

NEERI's EIA report:

- The report prepared by NEERI was comprehensive and covered all the requirements.
- It included the impact of the project on air quality, management of air quality and its monitoring, noise environment, water environment and water management, as well as the aspects connected with waste and waste management.
- The report also addressed the issues with local administration like upgradation of local infrastructure, noise and health environment and availability of proper health facilities and compensation related to the same.

Concerns unresolved with the recent report:

Though the report is comprehensive, it has some issues/problems:

- The EIA report does not have any provision related with regular data collection and submission of certificates at regular intervals.
 - Also the monthly compliance report has not been submitted by RIL for the existing complex as per the norms.
- Another important issue is the technical expertise of the EIA team.
- Majority of the responsibilities of compliance have been placed on the contractor by the report.
 - Past experiences show that the objective of the contractor remains at maximizing the profits at the expense of workers.

- Though employment generation is considered a major benefit of the project expansion, no data is mentioned about the same in the EIA report
- Further no compliance report has been provided by the company regarding employment generated for the local population.

Measures can be taken to solve the issue:

- **Accountability:** Accountability on the part of the company has to be established. Regular monitoring of the EIA report to be conducted along with a half yearly compliance report by the company (not contractor) on a regular basis.
- Strict implementation of water use policy and waste management strategy.
- **Information sharing and transparency:** Compliance reports filed by the company should be made public.
- **Independent EIA Authority:** independent EIA authority to be created comprising representatives from communities, peoples groups, scientists, sociologists and environmentalists. The decisions of the authority should be binding on MoEF&CC.
- **Creation of an information desk:** An information dissemination desk may be assigned within the MOEF&CC which anyone can write to regarding the status of clearance of projects and the information needs to be provided within 10 days from the date of application.
- **Conduct options Assessment:** EIAs should follow only after an options assessment and a least cost plan for a project is done by the state or central government.
- **Public hearing:** Public hearing on the matter needs to be done.
- **Specialized team:** EIA team should be equipped with the manpower having knowledge of the relevant field and should have expertise in the area of assessment.
- **Data driven approach:** Substantial data to showcase the efficacy of the project in employment generation.

How can EIA be made more effective?

- An independent expert team can be made to conduct EIA as well as monitoring its compliance.
- Public consultation should be made part of the EIA process.
- Grievance redressal mechanism should be established.
- Questions related to **ethical dilemmas** need to be addressed properly before finalization of the project.
- At present the EIA notification limits itself to the stage when environmental clearance is granted. The MOEF&CC should set up more regional offices, each with smaller areas of jurisdiction, to effectively monitor the compliance of clearance conditions.

PRELIMS

CORE SECTOR OUTPUT EXPANDS BY 12.7%

Priority: Low



Primary Source: The Hindu

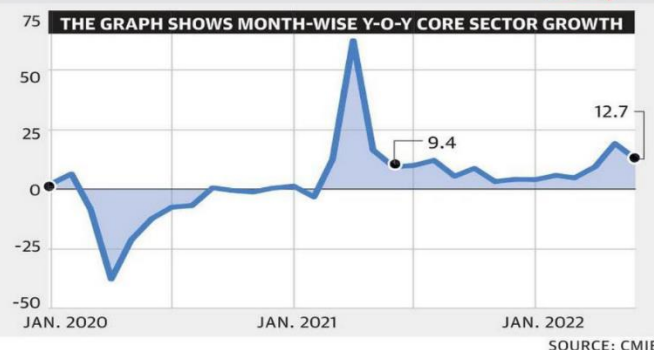
Prepp Prelims Booster: Core Sector Industries

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment

Context:

- Output growth in India's eight major industries fell from 18.1 percent in May to 12.7 percent in June, with all sectors except crude oil recording an increase in production.
- Compared to June 2021 output levels, the prices of coal, cement, electricity, and refinery products increased by 15% or more, while natural gas (1.2%), steel (3.3%), and fertilisers (8.2%) increased at a slower rate.
- After experiencing its first increase in several months this May, crude oil production decreased by 1.7 percent from a year ago, entering contractionary territory.

Expanding core | The output of eight core sectors expanded by 12.7% in June 2022, better than 9.4% recorded in the year-earlier period



What are core sector Industries?

- These are the most important sectors of the economy and constitute 40.27% of the weight of items included in the Index of Industrial Production (IIP).
- The Index of eight core industries (ICI) is prepared every month by the Office of the Economic Adviser (OEA), the Department for Promotion of Industry and Internal Trade (DPIIT), and the Ministry of Commerce & Industry.

Core industries include eight sectors of the Indian economy that are mentioned below:

- Coal – Coal production, excluding Coking coal.
- Electricity – Electricity generation of thermal, nuclear, hydro, imports from Bhutan.
- Crude Oil – Total crude oil production.
- Cement – Production in large plants and mini plants.
- Natural Gas – Total production of natural gas.
- Steel – Production of alloy and non-alloy steel only.
- Refinery Products – Total refinery production.

- Fertilizer – Urea, ammonium sulfate, calcium ammonium nitrate, complex grade fertilizer, and single superphosphate, among others.
- The Eight Core Industries in decreasing order of their weightage are Refinery **Products**> **Electricity**> **Steel**> **Coal**> **Crude Oil**> **Natural Gas**> **Cement**> **Fertilizers**.

Index of eight core industries

- The index of eight core industries for the months of March and May was also revised by the Commerce and Industry Ministry.
- While May's output growth from these sectors was revised higher at 19.3 percent from the prior estimate of 18.1 percent, March core sector growth was reduced to 4.8 percent from 4.9 percent predicted earlier.
- While **core industries, which make up around 40% of the Index of Industrial Production (IIP)**, experienced double-digit increase in June, the overall core output fell by 4.08 percent from May to June.
- The only industries to experience **consecutive month-over-month output growth** in June of 6.9 percent and 0.32 percent, respectively, **were cement and fertilisers**.
- The core sectors reported an 8% gain in June compared to pre-COVID levels, with all sectors performing well excluding steel and crude oil.
- It is anticipated the IIP growth to **slow to between 11 percent and 13 percent in June 2022**, in accordance with the reduction in the year-over-year performance seen in the majority of high frequency indicators as well as the core sector. The IIP increased by 19.6% in May.
- The **low base from last year** supported the growth rate in June, but the economist anticipates stronger momentum for the core sectors in the following months due to an increase in investment demand.

PM UNVEILED INDIA INTERNATIONAL BULLION EXCHANGE AT GIFT CITY

Priority: High



Primary Source: PIB

Prepp Prelims Booster: Gift City

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment

Context:

Recently, India's first International Bullion Exchange - India International Bullion Exchange - has been inaugurated by the Prime Minister in Gandhinagar's Gujarat International Finance Tec-City (GIFT City).

What is Bullion?

- Bullion is the term for high purity physical forms of gold and silver that are frequently stored as bars, ingots, or coins.

- Bullion is frequently kept as reserves by central banks or by institutional investors, and it is occasionally regarded as legal money.
- The Bullion Spot Delivery Contract and Bullion Depository Receipt (BDR) with underlying Bullion as a Financial Product and related Services as Financial Services were announced by the Government in August 2020.



What is bullion Exchange?

- It is a market where buyers and sellers can trade gold, silver, and related derivatives is known as a bullion exchange.
- The London Bullion Market is the main worldwide market trading platform for gold and silver. There are many more bullion markets across the world as well.

What is India International Bullion Exchange?

- IIBX will be a bullion exchange where buyers and sellers can exchange gold, silver, and related derivatives in India .
- India first liberalised gold imports in the 1990s through designated banks and organisations.
- The ability to directly import gold through IIBX has now been granted to eligible qualified jewellers in India.
- Jewelers will need to do this by signing up as a trading member or a customer of an existing trade member.
- The exchange has also put in place the infrastructure needed to keep actual gold and silver.
- To position India as a major regional hub for bullion flows, the exchange, which will trade in physical gold and silver, aspires to be built along the lines of the Shanghai Gold Exchange and Borsa Istanbul.

When was the India International Bullion Exchange announced?

- The Finance Minister announced the opening of India International Bullion Exchange (IIBX) at International Financial Services Center (IFSC) at GIFT City in Gandhinagar during her speech on the 2020 budget.
- For the trading of precious metals, such as gold and silver, the International Financial Services Centers Authority

(Bullion Exchange) Regulations, 2020, were announced in December 2020.

- The bullion exchange, clearing corporation, depository, and vaults are also covered by these regulations.

How will IIBX work?

- The idea of setting this up is to make it possible for commodities to be traded on an exchange.
- Since this is an international exchange, US dollars may also be used in transactions.
- India has established itself as one of Asia's major trading centers.
- International players will be glad to employ our vaulting services due to IIBX's affordable pricing.
- In addition, because this is a free trade zone, no duties will be paid.

What was the practice up to today?

- Gold is currently imported into India on a consignment basis into various cities by certain banks and organisations sanctioned by the RBI, where it is then provided to traders and jewellers.
- For handling, storage, and other services, the banks and other organisations charge the gold exporter a fee. When selling the gold to domestic customers, they also charge a premium.
- Up until the end user, the buyer transfers this fee along the value chain.

What benefit does an exchange provide?

- Bullion is made accessible across special economic zones (SEZs) in vaults that have been authorised by the International Financial Services Centres Authority (IFSCA) through the dis-intermediation of transactions through an anonymously traded exchange platform.
- This indicates that the expansion of IIBX extends beyond GIFT City to other national jewellery manufacturing clusters.
- A qualified jeweller who has been granted permission to import gold through IIBX, or a jeweller who works with an IIBX member, may browse the stock that is currently available and place an order.
- This will encourage jewellers to manage their inventories just-in-time.
- Additionally, it will increase pricing and order sequencing transparency, eliminating any potential for undue supplier, importing, or logistics agency bias.

Who can enroll in the IIBX?

- Non-Resident Individual / Proprietorship Firm
- Registered Partnership Firm
- Private Limited Company
- Public Limited Company
- Qualified Jewellers
- Branches of IBU at GIFT City

- Foreign Bullion Suppliers who follow OECD guideline

What will be the relevance of IIBX?

- It will enable India to take up its rightful position in the global bullion market and provide trustworthy and high-quality services to the global value chain.
- IIBX also affirms the Government of India's commitment to giving India the ability to influence global bullion prices as a major consumer.
- The IIBX will serve as the "Gateway for Bullion Imports into India," and all imports of bullion for use by Indian citizens must pass through the exchange.
- All market participants are anticipated to be brought together on a single, transparent trading platform via the exchange ecosystem.
- It would allow for more effective price discovery, certification of gold's quality, and improved integration with other financial market segments.

What is GIFT City?

- In Gandhinagar, Gujarat, there is a city called GIFT (Gujarat International Finance Tec-City).
- It is made up of a multiservice Special Economic Zone (SEZ) that is home to India's first International Financial Services Center (IFSC) and an exclusive Domestic Tariff Area (DTA).
- The objective of GIFT city (Gujarat International Finance Tec-City) is to become an integrated center for financial and technological services for both India and the rest of the globe.

What is IFSCA?

- The International Financial Services Centres Authority (IFSCA) is a unified authority for the development and regulation of financial products, financial services and financial institutions in the International Financial Services Centre (IFSC) in India.
- The IFSCA was established on April 27, 2020 under the International Financial Services Centres Authority Act, 2019. It is headquartered at GIFT City, Gandhinagar in Gujarat.
- At present, the GIFT IFSC is the maiden international financial services center in India.
- Prior to the establishment of IFSCA, the domestic financial regulators, namely, RBI, SEBI, PFRDA and IRDAI regulated the business in IFSC.
- The main objective of the IFSCA is to develop a strong global connect and focus on the needs of the Indian economy as well as to serve as an international financial platform for the entire region and the global economy as a whole.

ALPHAFOLD: A TOUR DE FORCE IN SCIENCE

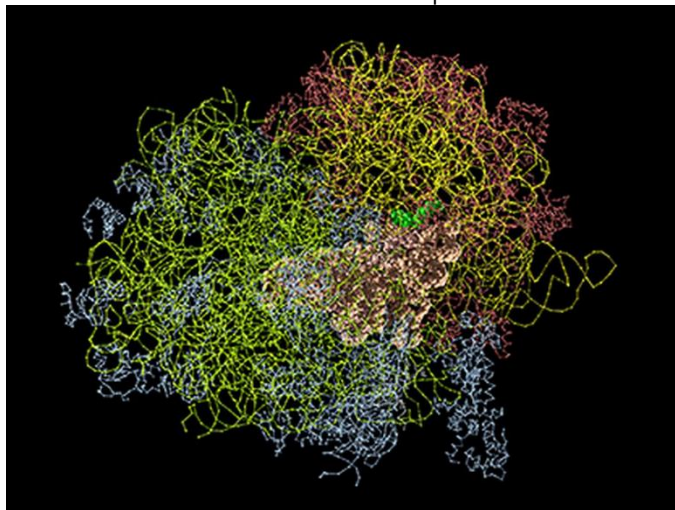
Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: Bio-technology**Context:**

- This week, Google-owned DeepMind revealed that it had used AlphaFold to predict the three-dimensional structures of more than 200 million proteins.

**What is AlphaFold?**

- It is an Artificial Intelligence (AI) system developed by DeepMind that predicts 3D structure of protein from its amino acid sequence. It regularly achieves accuracy competitive with experiment.
- Its functioning is based on a **deep neural network computer system**. **Neural networks, which were modeled after the human brain**, take in a lot of data and output the desired result in a manner similar to that of the human brain.
- In AlphaFold, protein sequences are supplied into it as input and the predicted three-dimensional structures of protein sequences are obtained as output.
- The hidden networks termed as black box situated between input and output layers are responsible for bulk of the processing work.

How does AlphaFold work?

- It makes use of "**training, learning, retraining, and relearning**" processes. The computer model is trained in the first step using the 1,70,000 protein structures that are currently accessible in the Protein Data Bank (PDB).
- The structural predictions of proteins not in the PDB are then learned using the outcomes of such training.
- Following that, it retrains and relearns to improve the accuracy of the earlier forecasts using the very accurate predictions from the first stage.
- This approach has allowed AlphaFold to successfully predict the structures of all 214 million distinct protein sequences that have been stored in the **Universal Protein Resource (UniProt) database**.

UniProt: It is a freely accessible database of protein sequence and functional information. It contains a large amount of information about the biological function of proteins derived

from the research literature. Many of its entries have been derived from genome sequencing projects.

What is the significance of this development?

- Proteins are commonly referred to as the building blocks of life. They carry out all of the tasks inside a living cell since they constitute all the biological processes. Thus, knowing the structure and function of proteins is **crucial for understanding human diseases**.
- Till now, X-ray crystallography, nuclear magnetic resonance spectroscopy, and cryogenic electron microscopy** were used by scientists to forecast protein structures.
- These traditional approaches **relied heavily on trial-and-error procedures**, and were **time-consuming and took years**.
- AlphaFold** represents a **turning point in science**, particularly in structural biology.
- Since the database was first made available to the general public over a year ago, **AlphaFold has already assisted hundreds of scientists** in accelerating their findings in the development of vaccines and drugs.

How can AlphaFold help India?

- In order to **build better vaccines and medications**, it must swiftly utilise the AlphaFold database and learn how to use the structures.
- It will **take less time to understand the precise structures of COVID-19 virus** proteins, which will speed up the creation of vaccines and antiviral medications.
- Additionally, India will need to move more quickly to **create public-private partnerships in the sciences**.
- The 25 terabyte AlphaFold dataset was made available to the entire scientific community without charge thanks to a public-private cooperation between **DeepMind and the European Bioinformatics Institute of the European Molecular Biology Laboratory**.

Way Forward

- By using what we have learned from this and from its advantage, India might promote **joint ventures** with the talent in hardware and data science that is already present in the business sector, as well as with experts in academic institutions, to open the door for data science advancements.

PARVAZ SCHEME: J&K GOVERNMENT LAUNCHES MARKET LINKAGE SCHEME FOR FARMERS

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: PARVAZ SCHEME

Prepp Mains Booster: Transport and Marketing of Agricultural Produce and Issues

Recently, Jammu & Kashmir Government launched an innovative Market Linkage scheme- PARVAZ aimed at providing market linkage support to farmers for the shipment of agriculture and horticulture perishables through Air Cargo.



What is the purpose of the scheme?

- The scheme aims at easily transporting the perishable produce to domestic as well as international markets besides covering a wider market for the produce harvested locally in Jammu and Kashmir.
- It also aims to boost employment opportunities for the locals and increase the overall income and living of the farmers.

What are the features of the scheme?

- Under this scheme, the J&K government will provide a subsidy of 25% on freight charges to farmers to carry perishable fruits through Air Cargo.
- The subsidy will be provided directly into bank accounts of farmers through Direct Benefit Transfer (DBT) mode.
- The subsidy as provisioned under this scheme will be provided on the air cargo rates on horticulture/agriculture perishable such as cherry, strawberry, plum, peach, pear, litchi, and exotic and organic vegetables only.
- The organic/exotic vegetables eligible for subsidy will be identified by an expert committee.

Implementing Agency

- Jammu & Kashmir Horticultural Produce Marketing and Processing Corporation (JKHPMC) is the implementing agency of this scheme.

- It will regularly create awareness among the farmers about the significance of this scheme so they can take benefit from it.

What are the benefits of this scheme?

- It tends to easily transport the perishable produce to domestic as well as international markets by covering a wider market for the produce harvested locally in Jammu and Kashmir.
- It will enable the fruit and vegetable farmers from J&K to earn a good amount of income, as they will get the price of their produce directly in their bank account with no intermediary in between.
- Besides, it will create a positive impact by marketing of produce harvested in Jammu & Kashmir. It will benefit the farmers by ensuring their economic and social welfare.

WHAT ARE 'FOREVER CHEMICALS' THAT ARE CONTAMINATING RAINWATER GLOBALLY?

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: Forever Chemicals

Prepp Mains Booster: Conservation, environmental pollution, and degradation, environmental impact assessment.

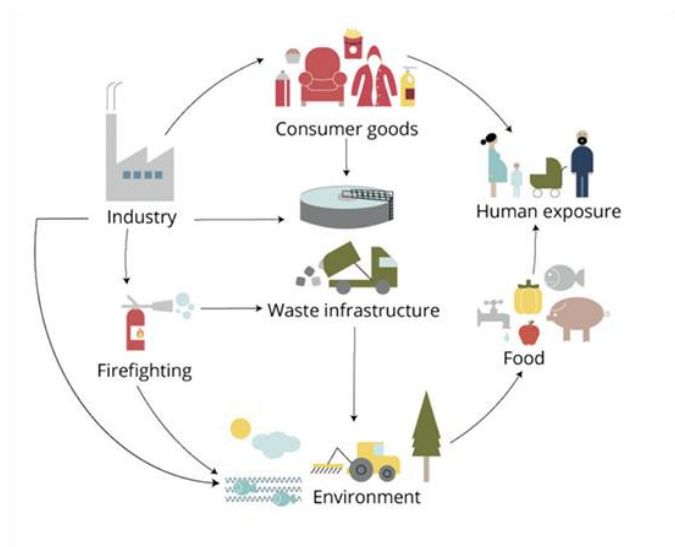
Context:

- According to a recent study published in Environment Science and Technology, "per- and polyfluoroalkyl substances" (PFAs), also known as "forever chemicals" due to their propensity to persist in the atmosphere, rainwater, and soil for extended periods of time, are contaminating rainwater from many locations around the world.

What are PFAs?

- Per- and polyfluoroalkyl substances" (PFAs), also known as "forever chemicals" are man-made compounds used to manufacture nonstick cookware, water-repellent clothing, stain-resistant fabrics, cosmetics, firefighting materials, and many other things that resist grease, water, and oil, according to the US Centre for Disease Control and Prevention (CDC).
- During the course of their production and usage, PFAs can move to the land, water, and air.
- The majority of PFAs do not degrade, therefore they linger in the environment for a long time.

- If people and animals are exposed to these PFAs on a regular basis, they may develop an accumulation of the chemicals.



How harmful are PFAs?

- PFA exposure is linked to a number of **health hazards**, including lower fertility, effects on children's development, interaction with body hormones, elevated cholesterol levels, and an increased risk of some malignancies, according to the United States Environmental Protection Agency (EPA).
- Recent studies have also shown that long-term low-level exposure to specific PFAs can interfere with the ability of people to develop antibodies following vaccination against different diseases.

Stockholm Convention:

- A global agreement called the **Stockholm Convention** was made to safeguard the environment and human health from **persistent organic pollutants (POPs)**.
- POPs are chemicals that accumulate in the fatty tissue of living things, stay intact in the environment for extended periods of time, and are dangerous to both people and wildlife.
- POPs are present everywhere and have the potential to harm.
- The Convention was approved by more than 152 nations, and on May 17, 2004, it came into effect.
- The Stockholm Convention aims to eliminate or scale back POP releases.
- It establishes a framework for dealing with other compounds that have been determined to be too dangerous.
- In the end, the Convention promises to reduce our economy's reliance on hazardous chemicals and points the way to a future free of harmful POPs.

The Stockholm Convention's five primary objectives are possibly best understood as follows:

1. Eliminate dangerous POPs, starting with the 12 worst
2. Support the transition to safer alternatives
3. Target additional POPs for action
4. Cleanup old stockpiles and equipment containing POPs
5. Work together for a POPs-free future

The **Global Environmental Facility (GEF)** is the designated interim **financial mechanism** for the Stockholm Convention.

Should we be concerned about PFAs in India's rainwater?

- Although examinations of samples collected in India were not included in the recently released research article, main author Ian Cousins claims that the results can be extrapolated to India due to the nature of PFAs, the geographical breadth of the samples, and the composition of PFAs.

How can the contaminants in rainwater be removed?

- There is no known method that can extract and remove PFAs from the atmosphere itself. However, there are numerous effective and expensive methods to remove them from rainwater collected through various rain harvesting methods.
- Utilizing an activated carbon filter system is one way to achieve this. Regular removal and replacement of the activated carbon will be required. Additionally, the outdated, contaminated material needs to be eliminated.

LANGYA HENIPAVIRUS: NEW ZOONOTIC VIRUS FOUND IN CHINA

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Langya Henipavirus

Prepp Mains Booster: Awareness in the fields of Biotechnology

Context:

Recently, cases of people infected with a new zoonotic virus- **Langya Henipavirus (LayV)** were discovered in China's two eastern provinces. So far, 35 patients have been found infected with it, indicating the first reports of animal-to-human transmission. These cases so far were not fatal or very serious and no human deaths have been reported. This virus was also found in domestic animals like goats and dogs.



What is Langya Henipavirus (LayV)?

- LayV is a "phylogenetically distinct Henipavirus" from the Paramyxoviridae family. Paramyxoviridae is a family of single-stranded Ribonucleic acid (RNA) viruses that cause different types of viral infections.
- It is closely related to the "Mojiang Henipavirus, which was also earlier discovered in southern China.

What are Henipaviruses?

- Henipavirus is a genus of negative-strand RNA viruses in the family Paramyxoviridae, order Mononegavirales containing six established species, and numerous others still under study.
- Henipaviruses are characterised by long genomes and a wide host range. They are naturally harboured by several species of small mammals such as pteropid fruit bats (flying foxes), microbats of several species and shrews.
- They are classified as biosafety level 4 (BSL4) zoonotic pathogens as they can cause severe illness and death in animals and humans and there are no licensed drugs or vaccines, as of now meant for humans.
- Henipavirus type viruses discovered earlier include Ghanian, Mojiang, Cedar, Nipah, and Hendra. Of these, Hendra and Nipah are known to have caused fatal illnesses in humans.

How was LayV discovered?

- It was first detected in the northeastern Chinese provinces of Shandong and Henan in 2018.
- Recently, it was discovered during surveillance testing of patients who had fever along with a recent history of animal exposure.
- It was identified and isolated from the throat swab sample of the patients.

What is the Host species of LayV?

- Shrews (small insectivorous mammals resembling a mouse) are the natural host of LayV virus RNA.
- In all likelihood, this new virus has jumped from shrews to humans (process called zoonosis- animal diseases that transmit to humans).

What are the Symptoms of LayV?

- Patients infected with LayV showed symptoms of fever, cough, fatigue, loss of appetite, muscle pain, headache, nausea and vomiting.
- They also reported other abnormalities like deficiency of thrombocytopenia (low platelet count), leucopenia (fall in the white blood cell count which reduces the body's disease-fighting capability), impaired liver and reduced kidney function.

What about Human to Human transmission of LayV?

- So far, there have been no cases of human-to-human transmission of the virus based on contact tracing of a few infected patients with their close-contact family members. However, the possibility of spread cannot be ignored.

LUMPY SKIN DISEASE IN CATTLES

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Lumpy Skin Disease

Prepp Mains Booster: Economics of Animal-Rearing, Awareness in the Fields of Biotechnology.

Context:

- In recent weeks, nearly 3,000 cattle have died in Rajasthan and Gujarat due to a viral infection caused by Lumpy Skin Disease (LSD) that has spread across the states.
- As a precautionary measure, the Gujarat government banned the transport of livestock out of 14 affected districts.
- Around 11 lakh cattle have been vaccinated against the disease and National Dairy Development Board (NDDB) has supplied 28 lakh doses of goat pox vaccine to Gujarat, Rajasthan and Punjab.



What is the Lumpy Skin Disease (LSD)?

- It is a highly infectious viral disease that affects all breeds of cattle and water buffalo. It is **caused** by a **virus** called the **Capripoxvirus** and is genetically related to the

goatpox and **sheeppox virus family**. It has emerged as a threat to livestock worldwide.

Origin and Spread:

- Historically, LSD disease remained **confined to Africa**, where it was first discovered in 1929.
- But in **recent years**, its geographical spread has expanded beyond the endemic areas. It was **first reported in the Asia and Pacific region in 2019** in North West China, Bangladesh and India.

What is the main cause of LSD?

- It is caused by infection of cattle or water buffalo with **poxvirus Lumpy skin disease virus (LSDV)**.

Vectors:

- LSD is transmitted to cattle and water buffalo mainly through vectors such as blood-feeding insects such as biting flies, mosquitoes, and ticks.
- It can also be spread through direct contact between animals via secretions and excretions such as saliva. Contaminated water and feed can also spread the disease

What Are The Symptoms of LSD?

- Infected animals immediately start losing weight and may have fever and lesions in their mouth, along with a reduced milk yield.
- They may also get affected by circular, firm nodes that look similar to lumps on their hide or skin. These lumps are 2 to 5 cm in diameter. These lumps gradually open up like large and deep wounds.
- Other clinical symptoms include excessive nasal and salivary secretion. Pregnant cows and buffaloes may suffer miscarriage. In some cases, it can also cause death of infected animals.

What is the available treatment for LSD?

- There is no treatment for the LSD virus. Prevention by vaccination is the most effective means of control. Secondary infections in the skin of infected animals can be treated with Non-Steroidal Anti-Inflammatories (NSAIDs) and also with antibiotics.

Prevention:

- It relies on four tactics:** Movement Control (quarantine), Vaccination, Slaughter Campaigns and Management Strategies.
- Prevention and eradication by rapid and widespread vaccination campaigns is the most effective means to control spread of the disease.

- Once an animal has recovered from it, it cannot be the source of infection for other animals.
- Disinfection of cattle-sheds must be done to eliminate vectors through application of insecticides and spraying disinfectant chemicals.
- Carcasses of dead diseased animals must be properly disposed through incineration or burning of the bodies at high temperatures.

Whether LSD is a Zoonotic Disease?

- LSD is not a zoonotic disease**, meaning it does not spread from animals to humans, and humans cannot get infected with it.
- However, milk produced by LSD disease infected animals is fit for human consumption only after boiling or pasteurisation as these processes will kill the viruses if present in the milk.

What are the consequences of LSD disease for India?

- According to the 20th Livestock Census (2019), India is the top country by number of cattle and buffaloes in the world. There are around 303 million cattle and buffaloes in India.
- LSD disease has emerged as trans-boundary animal disease, putting at risk at least 23 countries in South Asia (including India), East Asia and Southeast Asia.
- Its spread in India, will have a devastating impact for most dairy farmers who are either landless or marginal landholders and for the country's milk production, as it is among the cheapest protein sources.

PORTULACA OLERACEA: SUPER PLANT HOLDS KEY TO DEVELOPING DROUGHT-RESISTANT CROPS

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Drought-tolerant crops

Prepp Mains Booster: Awareness in the fields of Biotechnology.

Context:

Recently, Scientists found that a common weed and succulent plant - Portulaca oleracea (commonly known as Purslane) offers important clues about creating drought-tolerant crops in a world beset by climate change.



What is Photosynthesis?

- Photosynthesis is the process by which green plants and certain other organisms transform light energy into chemical energy.
- During this process, green plants capture light energy and use it to convert water, carbon dioxide (CO₂), and minerals into oxygen and energy-rich organic compounds in the form of glucose (sugars).
- C₃, C₄ and CAM are the three different processes that plants use to fix carbon during the process of photosynthesis.
- Fixing carbon is the way plants remove the carbon from atmospheric CO₂ and turn it into organic molecules like carbohydrates.

What is the difference between C₃, C₄ and CAM pathways?

- The key difference between C₃, C₄ and CAM pathway is the synthesis of different products during the grasping of CO₂ for photosynthesis from the sunlight and then conversion of it to glucose.
- When photosynthetic plants yield 3-carbon acid or 3-phosphoglyceric acid (PGA) as their first product during the CO₂ fixation, it is known as C₃ pathway.
- When photosynthetic plants before entering the C₃ pathway produce oxaloacetic acid or 4-carbon compounds, its primary product is known as Slack or Hatch or C₄ pathway.
- The CAM (crassulacean acid metabolism) pathway is obtained when plants grasp the solar energy during the day and use the energy at night time to assimilate or fix carbon dioxide.

What scientists discovered?

- They found that the Purslane plant integrates two different metabolic pathways to produce a novel type of

photosynthesis that enables it to withstand drought and remain highly productive.

- Based on geographical investigation of gene expression within the leaves of Purslane, it was discovered that C₄ and CAM activity is completely integrated, which is an unusual combination for other plants.
- C₄ and CAM activity function in the same cells in the Purslane plant, with the C₄ pathway processing the byproducts of CAM processes. This strategy offers Purslane plant unusually high levels of protection in times of drought.

What is the significance of this discovery?

- This is a very rare combination of evolutionary traits among Purslane Plant which makes it a 'super plant' and potentially be useful in crop engineering to create drought resistant crops.
- Using this discovery, scientists were able to develop metabolic flow models that foretold the creation of an integrated C₄+CAM system that matched their actual findings.
- Comprehending this novel metabolic process of Purslane Plant will enable scientists to develop fresh approaches for engineering crops to better tolerate protracted drought.

INDIA'S FIRST INDIGENOUSLY DEVELOPED HYDROGEN FUEL CELL BUS

Priority: Medium



Primary Source: The Indian Express

Prepp Prelims Booster: Fuel cells

Prepp Mains Booster: Awareness in the fields of IT, Space, Computers, Robotics, Nano-technology, Bio-technology

Context:

Recently, India's first indigenously developed Hydrogen Fuel Cell Bus was unveiled in Pune. It has been developed by Council of Scientific and Industrial Research (CSIR) and KPIT Limited, a Pune-based software limited as part of the Government's National Green Hydrogen Mission and Atmanirbhar Bharat mission.

What is a fuel cell?

- It is an electrochemical energy conversion device which generates electricity, heat and water by using hydrogen and air as fuel.

Working of Fuel Cell

- It consists of an anode (negative electrode) and cathode (positive electrode) sandwiched around an electrolyte.

- Hydrogen as a fuel is fed to the anode along with air to the cathode. At the anode, a catalyst separates the hydrogen molecules into protons and electrons which take different paths to the cathode.
- The electrons go through an external circuit, creating a flow of electricity that powers electric motors.
- The protons move to the cathode through the electrolyte. Once there, they unite in the presence of oxygen to produce water and heat as by-products.

Applications of Fuel Cells

- Transport Sector
- Portable devices- electronics, auxiliary power units etc.
- Power industrial, commercial, residential buildings etc.

What are the advantages of Hydrogen Fuel Cell Bus?

- Lower operation cost:** Due to higher efficiency and high energy density of hydrogen, operational costs in rupees per kilometre for hydrogen fuel cell vehicles are lower than diesel-powered vehicles. It also has much longer operating times than conventional electrical vehicles.
- Environment-friendly mode of transportation:** Instead of producing smoke or air pollution, hydrogen fuel cell vehicles produce water and heat as byproducts. This makes them the most environmentally-friendly mode of transportation.
- It also helps to overcome issues of smog and health problems caused by air pollution due to traditional combustion vehicles. It also offers noise-free operation.
- Longer range:** Unlike traditional electrical vehicles, which need to be regularly recharged, hydrogen- fuel cell powered vehicles produce electricity as long as the supply of Hydrogen is available. This gives them a longer range, compared to traditional electrical vehicles.

ISRO'S FIRST SMALL SATELLITE LAUNCH VEHICLE MISSION

Priority: Medium



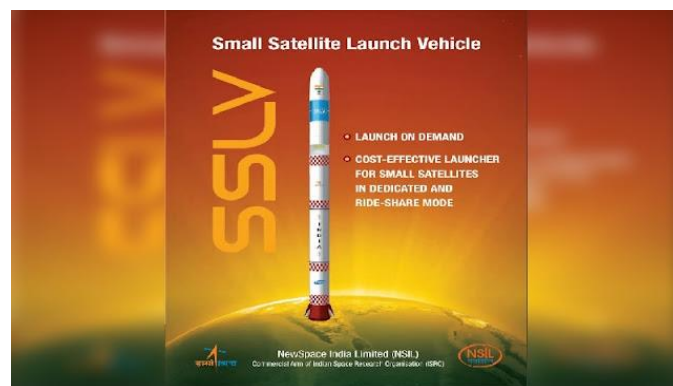
Primary Source: Indian Express

Prepp Prelims Booster: Small Satellite Launch Vehicle

Prepp Mains Booster: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights..

Context:

- Recently, Indian Space Research Organization (ISRO) launched its first Small Satellite Launch Vehicle (SSLV-D1) from Sriharikota. It was tasked to carry Earth Observation Satellite-EOS-02 and a co-passenger student satellite 'Azaadi SAT' into low earth orbit (LEO).
- However, after a successful lift-off and separation of its three stages, the rocket placed satellites into 356 km x 76 km elliptical orbit instead of designated 356 km circular orbit, making satellites no longer usable.



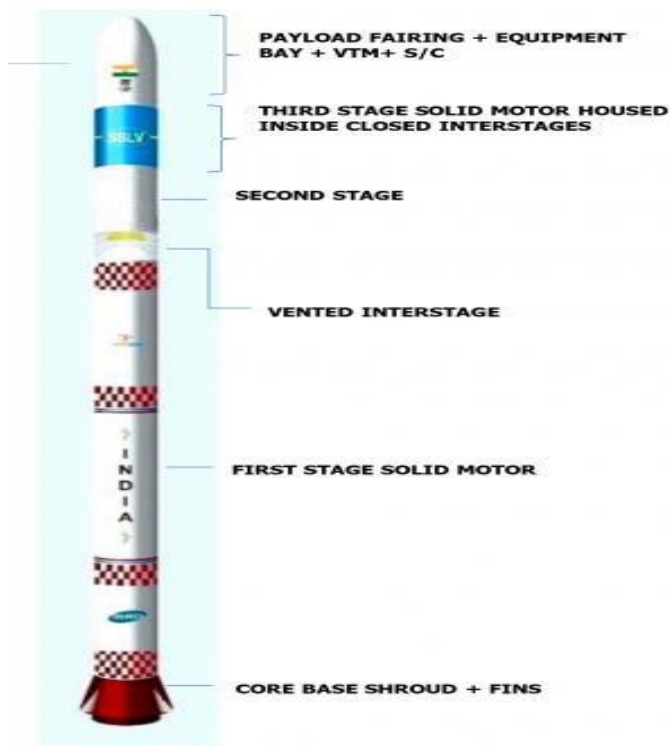
What is a Small Satellite Launch Vehicle (SSLV)?

- It is India's lightest launch vehicle weighing 110 tonnes, designed to meet 'launch on demand' requirements.
- It can carry payloads weighing up to 500 kg and deploy satellites into a 500 km low earth orbit (up to altitudes of 1,000 km from earth's surface).
- It has a three stage solid propulsion system, and like PSLV and GSLV, it can accommodate multiple satellites (albeit smaller ones). It also features both vented and closed interstage.
- Providing end-to-end SSLV Launch services will be sole responsibility of the new commercial arm of ISRO i.e. NSIL (New Space India Limited).

What are the benefits of SSLV?

- It will be a cost-effective launch vehicle, offering high launch frequency and quick turnaround capability as it can be assembled within 72 hours by a team of just 5-6 people.
- Unlike the PSLV and GSLV, it can be assembled both vertically and horizontally. It has flexibility in accommodating multiple satellites such as nano, cubesats, micro and small satellites.
- It is cost effective as it costs one-tenth of launch vehicles currently in use. It also needs minimal launch infrastructure requirements.

- It caters specifically to the small and micro satellites weighing upto 500 kg (less than one-third the weight the PSLV can carry) into the 500 km planar orbit, which now constitute over 90% of all satellites being launched these days.



Why did ISRO develop the SSLV?

- In recent times, the small satellite industry has witnessed a manifold spike and demand for launching them has increased at a rapid pace, due to the ever-growing need for space-based data, communication, surveillance, and commerce.
- Estimates suggest that thousands of small satellites will be launched by next decade. Satellite builders and operators, therefore, are looking for launch rocket services at lower costs.
- As a result, the demand for dedicated small rockets that can be launched frequently, and can offer cheap rides to space, is growing.
- This provides a lucrative business opportunity for ISRO, because most of the demand is now coming from companies that are launching small satellites for commercial purposes.

What are problems with present launch vehicles?

- ISRO makes 5-6 launches every year with its Polar Satellite Launch Vehicle (PSLV) and GSLV (Geospatial Satellite Launch Vehicles) rockets. These rockets typically take 70-80 days to assemble.
- Moreover, each of these costs tens of millions of dollars and dozens of people work on their assembly.

- Though they also carry commercial satellites, the revenue generated is not commensurate with the costs incurred.

How will ISRO benefit from SSLV?

- SSLV will have quick turnaround time, usually less than three days. It can be assembled on demand at short notice time and that too fraction of the cost, compared to the existing launch vehicles such as PSLV and GSLV.
- It has capability to carry satellites weighing up to 500 kg to LEO which is one of the most sought after places in space for positioning of satellites. Thus, it will delineate big satellite launches from small satellite launches.
- It will drastically increase ISRO's launch rate. ISRO is looking at 50 to 60 launches every year with the help of SSLV. That means one launch every week, a sharp contrast from the 2-3 launches every year that ISRO currently manages.

INDIA'S FIRST PRIVATE SPACE SITUATIONAL AWARENESS OBSERVATORY

Priority: Medium



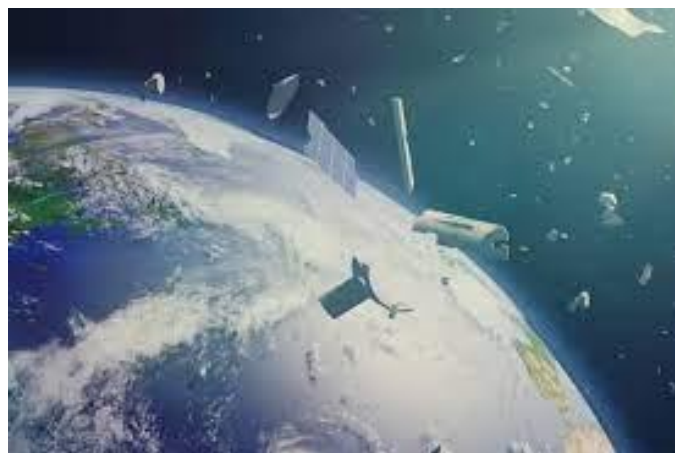
Primary Source: The Hindu

Prepp Prelims Booster: India's first commercial Space Situational Awareness

Prepp Mains Booster: Awareness in the fields of IT, Space, Computers, Robotics

Context:

Recently, space sector start-up **Digantara** announced that it will set-up India's first commercial Space Situational Awareness (SSA) observatory in the Garhwal region of Uttarakhand to track objects as small as 10 cm in size orbiting the earth.



What is Space Situational Awareness (SSA)?

- It refers to knowledge of the space environment, assessment of any threats to space activities and implementation of necessary mitigation measures to safeguard space and ground assets.

It covers three main areas

- Space Surveillance and Tracking (SST) of man-made objects.
- Near-Earth Objects (NEO) monitoring of natural space objects.
- Space Weather (SWE) monitoring and forecast.

India's SSA capabilities

- ISRO's SSA Control Centre- NETRA (Network for Space Objects Tracking and Analysis) in Bengaluru: It is an early warning system to detect debris and other hazards to Indian satellites.
- India also has signed a bilateral SSA arrangement with the US.

What will be the significance of Digantara's SSA Observatory?

- **Continuous Monitoring of Space:** It will help to monitor events occurring in deep space, especially in the geostationary, medium-Earth, and high-Earth orbits.
- High-quality observations made by it will be complemented by observations of its partner ground-based sensor network.
- **Avoid Losses to space assets:** It will provide efficient collision avoidance systems in highly congested orbital regions like low earth orbit (LEO) and geosynchronous earth orbit (GEO).
- Thus, help to reduce the potential for collisions between satellites and other spacecraft by making more accurate predictions of their location, speed, and trajectory.
- **Strategic advantage:** It will give India indigenous capabilities to monitor space activity over the subcontinent and not be dependent on other countries like the US for SSA.
- Currently, India is relying on the US for monitoring space debris as it has observatories in multiple locations across the globe.
- **Develop indigenous capabilities:** It will bring indigenous capabilities for both military and civilian applications with help from the private sector.
- **Fill the crucial gap in SSA observations:** At present there is a lack of such SSA observations facilities between Australia and southern Africa.

What is the need for the private sector's participation in the space sector?

- The global space industry is worth \$400 billion and is set to touch \$1 trillion by 2040. India's private sector participation hardly is 2% in it.
- Private sector and academia in India in recent times have started playing an important role in activities ranging from

manufacturing of launch vehicles and satellites to earth observation applications.

- To increase the role of the private sector, the Government has created a sectoral regulator for private players, IN-SPACe (Indian National Space Promotion and Authorisation Centre) to provide a level-playing field to private companies and start-ups in the space sector.
- Some of them are Hyderabad's Dhruva Space Pvt Ltd and Bengaluru's Digantara research & technologies. Tata Play has partnered with NewSpace India Limited (NSIL) for utilising the capacity on board the communication satellite GSAT-24, built by ISRO.
- This will help in creating an ecosystem that will help India to take a huge leap in the field of space and space industry to become a huge contributor to the economy.

Advantages of private sector in space sector

- **Reduction in cost:** Participation of private sector and start-ups in the space sector will lower-cost of operations.
- **Technology and innovation:** Private sector's participation will give rise to new innovations and adaptation of new technology.
- **Investment and capacity development:** Private sector will facilitate investments in research and development and technology acquisition, capacity-building and space exploration, including planetary exploration.
- **Harvesting talent pool:** Participation of private entities in the space sector helps to harvest a sizable talent pool of India searching for opportunities.
- **Boost Competitiveness:** With low cost, innovation and better talent, India's private sector will make the space sector more competitive with respect to the globally reputed, private space industry.
- With private entrepreneurs' involvement, India can emerge as a big player in 'space tourism' and 'space diplomacy'
- **Fill communication infrastructure deficit:** Participation of private sector will fill in the communication infrastructure deficit, by looking for space-based solutions

JUPITER LIKE NEVER SEEN BEFORE, THROUGH THE WEBB TELESCOPE

Priority: Medium



Primary Source: India Express

Prepp Prelims Booster: James Webb Telescope

Prepp Mains Booster: Awareness in the field of Space

Context:

Recently, NASA's most powerful telescope - James Webb Space Telescope (JWST) captured new images of our solar system's largest planet, Jupiter.

The new images from JWST have captured a new view of the planet, presenting in detail its massive storms, colourful

auroras, faint rings and two small moons — Amalthea andAdrastea.

What were new findings about Jupiter?

- JSWT captured images have shown Jupiter encompassed in blue, green, white, yellow and orange hues. It is different from earlier yellow and reddish-brown gas images of Jupiter.
- Jupiter's famous Great Red Spot appeared bright white in the image, since it was reflecting a lot of sunlight.
- This brightness indicates high altitude, meaning that the Great Red Spot has high-altitude hazes, as does the equatorial region.
- The numerous bright white 'spots' and 'streaks' are likely indications of very high-altitude cloud tops of condensed convective storms.

About Jupiter

- It is the fifth planet from the Sun. It is the largest planet in the solar system – more than twice as massive as all the other planets combined.
- It is a Jovian or Gas Giant Planet like Saturn, Uranus and Neptune. Jovian or Gas Giant Planets have a thick atmosphere, mostly of helium and hydrogen.
- Jupiter rotates once about every 10 hours (a Jovian day), but takes about 12 Earth years to complete one orbit of the Sun (a Jovian year).
- It has more than 75 moons. Ganymede is its largest moon and it is also the most massive of the Solar System's moons.
- Jupiter's iconic Great Red Spot is a giant storm bigger than Earth that has raged for hundreds of years.

What is the James Webb Space Telescope?

- It is the National Aeronautics and Space Administration's (NASA) most powerful infrared telescope.
- It is also regarded as the Hubble Telescope's successor, which was launched into low Earth orbit in 1990.
- NASA, the European Space Agency (ESA), and the Canadian Space Agency collaborated to build the telescope.
- It views in near-infrared light rather than visible light (unlike Hubble), giving it a significantly higher ability to see hidden stars and galaxies.
- It will also look for Earth-like atmospheres and the signs of crucial chemicals including methane, water, oxygen, carbon dioxide, and complex organic compounds in the hopes of discovering the building blocks of life.

What is the Current Status of the James Webb Space Telescope?

- It was launched in December 2021 and is now in the Sun-Earth L2 Lagrange point, roughly 1.5 million kilometres beyond Earth's orbit around the Sun.
- **Lagrange Point 2:** It is one of the five places in the Earth-Sun system's orbital plane. The points, named after the Italian-French mathematician Joseph-Louis Lagrange, may be found in any rotating two-body system, such as the Earth and Sun, and indicate where the gravitational pulls of the two big masses cancel each other out.

Mission goals of JSWT

- Search for early development of stars and galaxies in the early period — the first few hundred million years — after the Big Bang.
- Determine how galaxies evolved.
- Observe stars formation from the first stages to formation of planetary systems.
- Measure physical and chemical properties of planetary systems, including our own solar system and investigate potential for life in those systems.
- **Decipher Cosmos Mysteries:** Discover what caused the universe to grow so swiftly less than a millisecond after the Big Bang.
- **Investigate the Universe's Dark Age:** The Dark Ages is the time before gravity produced the first stars and galaxies that eventually began to emit the first light.
- **Search for indications of life on exoplanets:** Because of its huge mirror and excellent Infrared Spectrograph equipment, JSWT can do it with considerably more precision.

Scientific instruments on JWST:

- Near Infrared Camera,
- Near Infrared Spectrograph,
- Mid Infrared Instrument and
- Fine Guidance Sensors/Near Infrared Imager and Slitless Spectrograph.

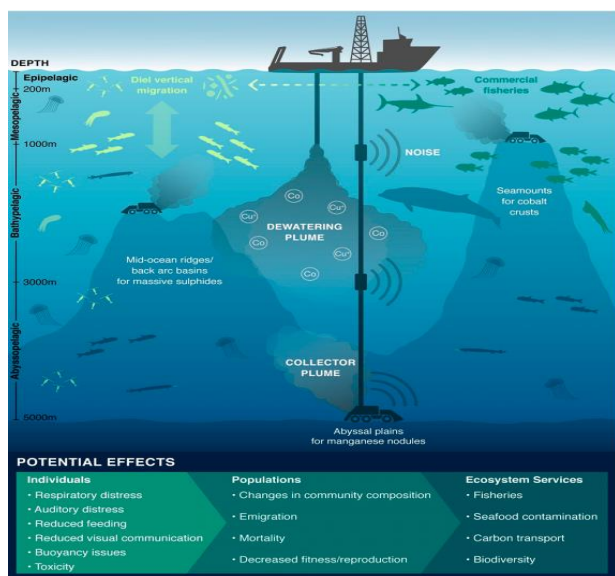
DEEP SEA MINING

Priority: Medium



Primary Source: PIB

Prepp Prelims Booster: Deep Sea Mining



What is deep-sea mining?

The technique of extracting mineral reserves from deep seabeds, or ocean depths below 200 metres, is known as deep-sea mining.

What is the significance of the buoy-based coastal observation and water quality now casting system?

- High-end sensors are part of the system and are mounted on an automated buoy that is connected to a Kochi coastal observatory.
- Coastal residents, fishermen, the maritime sector, researchers, and organisations that deal with pollution, tourism, fisheries, and the coastal environment will all profit from the system.
- **Real-time data** on 19 water quality-related measurements, including temperature, salinity, dissolved oxygen, and turbidity, will be made available.
- These measurements **will help create accurate nowcasts** about the quality of the coastal waters, enhance measures of the health of the coastal ecosystems, and calibrate and validate sensors on satellites like Oceansat-III.
- Through a special website, INCOIS will make this information available to the public without charge.

What is the Deep Ocean Mission?

- In order to promote the Blue Economy Initiatives of the Government of India, Deep Ocean Mission will be a mission-mode initiative. The nodal ministry responsible for carrying out this ambitious multi-institutional endeavour will be the Ministry of Earth Sciences (MoES).

The Deep Ocean Mission consists of the following six major components:

Development of Technologies for Deep Sea Mining, and Manned Submersible:

- A three-person manned submersible equipped with a variety of scientific sensors and tools will be created to travel to an ocean depth of 6000 metres to see the development of an integrated mining system for the extraction of polymetallic nodules at a depth of 6000 metres.

Development of Ocean Climate Change Advisory Services:

- A collection of observations and models will be created in order to comprehend and provide future estimates of significant climatic variables on seasonal to decadal time periods. **Coastal tourism** is a Blue Economy priority area that will be supported by this component.

Technological innovations for exploration and conservation of deep-sea biodiversity:

- The primary focus will be on research on sustainable usage of deep sea bio-resources as well as bio-prospecting of deep sea flora and fauna, including microbes. Marine Fisheries and related services, a Blue Economy priority area, will be supported by this component.

Deep Ocean Survey and Exploration:

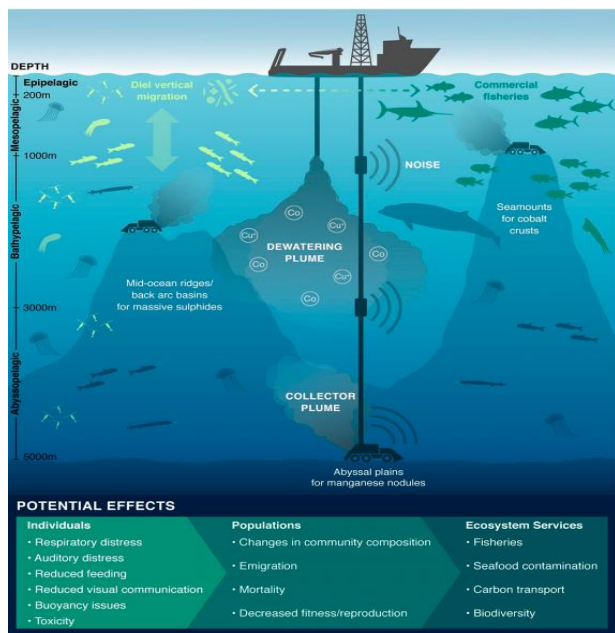
- This component's **main goal is to investigate and locate** possible locations **for multi-metal hydrothermal sulphide mineralization** in the mid-oceanic ridges of the Indian Ocean. Deep sea exploration of ocean resources, a Blue Economy priority area, will also be supported by this component.

Energy and freshwater from the Ocean:

- This proof of concept proposal envisions studies and a complete technical design for an offshore **Ocean Thermal Energy Conversion (OTEC) powered desalination facility**. Offshore energy development will be supported by this component's support of the Blue Economy priority area.

Advanced Marine Station for Ocean Biology:

- The goal of this component is to increase human ability and initiative in ocean biology and engineering. Through on-site business incubator facilities, this component will transfer research into industry application and product development. The Marine Biology, Blue Trade, and Blue Manufacturing priority areas of the Blue Economy will be supported by this component.



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With this situation, it is important to note that the engagement of the formal waste management system

ROSHNI: INDIA'S FIRST SALINE WATER LANTERN

Priority: Medium

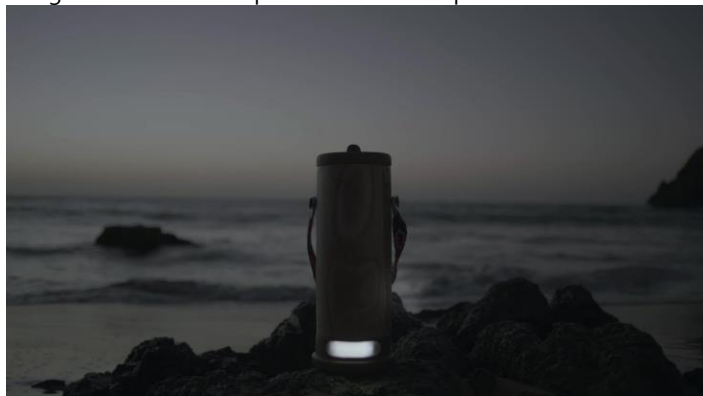


Primary Source: PIB

Prepp Prelims Booster: Saline water lantern

Context:

Recently, the National Institute of Ocean Technology (NIOT) launched India's first saline water lantern, named "Roshni". It uses seawater as the electrolyte, placed between specially designed electrodes to power the LED lamp.



How does a saline water lantern work?

- The working of the saline water lantern is based on the principle of the working of a **galvanic cell**. It uses salt water as the electrolyte.
- Galvanic cells (voltaic cells) are electrochemical cells in which spontaneous oxidation-reduction reactions take place at electrodes in presence of an electrolyte to produce electrical energy.
- Two electrodes are placed in the electrolyte solution (in this case saline water), which produces electricity, which in turn, lights the lantern.

What are the benefits of the Roshni Lantern?

- It is cost-effective and easy to operate. It uses a renewable source of energy and has been designed in a way that is not at all harmful.
- This technology can also be used in the hinterlands, where sea water is not available, as normal water mixed with common salt can be used to power the lantern.

What is the significance of the Roshini lantern?

- It will bring **"ease of living to the poor and needy**, particularly the fishing community living along the 7,500 km long coastline of India.
- It will also **boost and supplement** the Central Government's **UJALA scheme** launched in 2015 for distribution of LED bulbs across the country.
- It will **aid the Government's vibrant renewable energy programme** aimed at achieving energy security, energy access and reducing the carbon footprints of the national economy.
- Transfer of technology of this multipurpose lamp to the industry for mass production will immensely help in electrification of rural and remote areas. It can also be used in times of disasters.

About National Institute of Ocean Technology (NIOT)

- It is an autonomous institute under the Union Ministry of Earth Sciences.
- It was established in November 1993 and is based in Chennai, Tamil Nadu.

Objectives

- Develop world-class technologies and their applications for sustainable utilisation of ocean resources.
 - Provide value-added, competitive technical services and solutions to organisations working in the oceans.
- Develop knowledge base and institutional capabilities in India for management of ocean resources and environment.

GI TAG TO BIHAR'S MITHILA MAKHANA

Priority: Low



Primary Source: The Indian Express

Prepp Prelims Booster: GI Tags

Prepp Mains Booster: Issues relating to Intellectual Property Rights.

Context:

Recently, Bihar's Mithila Makhana was awarded the Geographical Indication (GI) Tag by the Union Government.



What is Mithila Makhana?

- Mithila Makhana is a special variety of Aquatic Fox Nut that is cultivated in the Mithila region of Bihar and adjoining areas of Nepal.
- Its Botanical name is *Euryale Ferox Salisb.* It is locally known as Makhan in Mithila.
- It grows on a leaf in a pond, before it is collected, washed and sun-dried for hours. After that, it is roasted in a pan at a high flame. Following this, its outer shells are broken and the white puff comes out.
- **Health Benefits:** It is hailed as a healthy Indian snack as it is rich in protein and fibre.
- It has high nutritional value and is a rich source of proteins, carbohydrates, fibre and various micronutrients such as magnesium, calcium, phosphorus and iron.
- It is low in cholesterol, fat and sodium, and is an ideal weight-loss snack as it is low in calories.
- It also helps one to overcome insomnia and arthritis, and improve cognitive functions.

- **Cultural Significance:** It is one of the three prestigious cultural identities of Mithila. Other two are Pan (betel leaf) and Machh (fish).
- Maithili Brahmin community extensively uses and distributes Makhana as auspicious reverence during the Kojagara Puja festival.

Significance of this decision

- Bihar harvests 80% of India's total Makhana (Fox Nut) supply. Its Mithila region is famous for its cultivation.
- GI Tag to it, will help farmers to get the maximum price for their premium produce. It will benefit over 5 lakh farmers of Mithila region of Bihar.

Other GI Tag products from Bihar

- Katarni Dhaan (rice)
- Bhagalpur's Jardalu Mango,
- Nawada's Magahi Paan
- Muzaffarpur's Shahi Litchi
- Silao Khaja (a delicacy)
- Madhubani Painting
- Pipli Work

What is Geographical Indication (GI) Tag?

- It is a sign used to identify goods having special characteristics originating from a definite geographical territory.
- It is accorded to products having specific geographical origin or having qualities, characteristics or reputation that are attributed specifically due to the place of origin.
- **GI tag is awarded to:** It is primarily given to agricultural, natural or a manufactured product (handicrafts and industrial goods).
- **Validity:** It is valid for a period of 10 years following which it can be renewed.
- **Laws regulating GI: Internationally,** it is governed by the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). As per, Articles 1 (2) and 10 of the Paris Convention for the Protection of Industrial Property (IPR)-Geographical Indication is an element of Intellectual Property.
- In India, Geographical Indications of Goods (Registration and Protection) Act, 1999 provides for the registration and better protection of geographical indications related to goods in the country.

Benefits of GI tag

- It provides **legal protection** and prevention against the unauthorised use of GI products by others. It doesn't allow any person or company to sell a similar item under that name.

- It helps in brand building, creating local employment, creating a regional brand and generating spin-off effects in tourism.
- It also helps in **preserving traditional knowledge and traditional cultural expressions** and conserving biodiversity. It also provides customers with the authenticity of the product.

INDIA ADDS 11 NEW RAMSAR SITES

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Ramsar Sites

Context:

According to the article published in PIB, India adds 11 more wetlands to the list of Ramsar sites to make total 75 Ramsar sites covering an area of 13,26,677 ha in the country in the 75th year of Independence.

The 11 new sites include: Four (4) sites in Tamil Nadu, Three (3) in Odisha, Two (2) in Jammu & Kashmir and One (1) each in Madhya Pradesh and Maharashtra. Designation of these sites would help in conservation and management of wetlands and wise use of their resources.

India is one of the Contracting Parties to Ramsar Convention, signed in Ramsar, Iran, in 1971. India signed it on 1st Feb 1982. During 1982 to 2013, a total of 26 sites were added to the list of Ramsar sites, however, during 2014 to 2022, the country has added 49 new wetlands to the list of Ramsar sites.

During this year itself (2022) a total of 28 sites have been declared as Ramsar sites. Based on the date of designation mentioned on Ramsar Certificate, the number is 19 for this year (2022) and 14 for previous year (2021)..'

What are the new Ramsar Sites of India?

Tampara Lake (Odisha):

- Tampara Lake is among the most prominent freshwater lakes in the State of Odisha. The wetland is an important habitat for vulnerable species such as Cyprinus carpio, common pochard (Aythya ferina), and river tern (Sterna aurantia).

Hirakud Reservoir (Odisha)

- Hirakud Reservoir, the largest earthen dam in Odisha started operating in 1957.
- The wetland provides important hydrological services by moderating floods in the Mahanadi delta, the ecological and socio-economic hub of the east coast of India.

Ansupa Lake (Odisha, Cuttack district)

- Ansupa Lake is the largest freshwater lake in Odisha and is situated in the Cuttack district. The wetland is an oxbow lake created by River Mahanadi.
- The wetland provides a safe habitat to:-

- Three threatened bird species– *Rynchops albicollis* (EN), *Sterna acuticauda* (EN) and *Sterna aurantia* (VU)
- Three threatened fish species– *Clarias magur* (Clariidae) (EN), *Cyprinus carpio* (Cyprinidae) (VU) and *Wallago attu* (VU).

Yashwant Sagar (Indore, Madhya Pradesh) :

- One of the two Important Bird Areas (IBA) in the Indore region of Madhya Pradesh, Yashwant Sagar is one of the most significant birding locations in the Malwa region.

Chitrangudi Bird Sanctuary (Ramanathapuram, Tamil Nadu):

- Since 1989, the marsh has been designated a bird sanctuary and as a protected area.
- For migratory birds in the winter, it provides the perfect habitat.
- Complex of the Suchindram Theroor Wetland (Kanya Kumari, Tamil Nadu)

Suchindram Theroor Wetland Complex (Kanya Kumari, Tamil Nadu):

- It is situated at the southernmost point of the migratory bird flyway in Central Asia and has been designated an Important Bird Area.
- This perpetual, man-made tank is located inland.

Vaduvur Bird Sanctuary (Tamil Nadu):

- As it offers migrating birds a favourable environment for food, shelter, and nesting grounds, it serves as a sizable irrigation tank that was created by humans.
- As a result, the habitat supports species like the Indian Pond Heron (*Ardeola grayii*) at crucial points in their life cycles.

Kanjirankulam Bird Sanctuary (Ramanathapuram, Tamil Nadu) :

- Several migratory heron species use it as a nesting ground, and they roost in the area's profusion of babul trees.
- Due to the breeding activity of the endangered Spot-billed Pelican (*Pelecanus philippensis*), the area qualifies as an IBA.

Thane Creek (Maharashtra):

- Ulhas River is the largest source of water for the creek, followed by many drainage channels from various suburban areas of Mumbai, Navi Mumbai & Thane.
- It has been declared as Thane Creek Flamingo Sanctuary. The area is an important part of the wetland complex of the Central Asian Flyway of the birds and has been categorized as an Important Bird Area (IBA).

Hygam Wetland Conservation Reserve (Baramulla district, J&K):

- Hygam Wetland falls within the River Jhelum basin and plays a significant role as a flood absorption basin, biodiversity conservation site, eco-tourism site, and livelihood security for the local communities.
- It is also recognized as an Important Bird Area (IBA).

Shallbugh Wetland Conservation Reserve (Sri Nagar, J&K):

- There are large reedbeds of *Typha angustata* and *Phragmites communis* in the area, as well as dense growths of *Nymphaea candida* and *N. stellata* on open water. More than four lakh resident and migratory birds of at least 21 species call it home.

What is Ramsar site?

- A wetland site that has been given international recognition as per the Ramsar Convention is known as a Ramsar Site.
- According to the Ramsar Convention on Wetlands' stringent regulations, these wetlands are protected.
- Wetland areas are defined by the Ramsar Convention as "regions of marsh, fen, peat land or water, whether natural or manmade, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters."

What is Ramsar Convention?

- The only international agreement that focuses primarily on wetlands ecosystem is the Ramsar Convention, which was signed in 1971 in Ramsar, Iran.
- It is an international agreement for the protection and wise use of wetlands.
- Objective: Stopping the global loss of wetlands and preserving those that are still there via appropriate use and management are the goals.
- Members: The convention has been ratified by 170



nations.

- Based on the listed criteria, each contracting party commits to adding at least one wetland from its territory to the List of Wetlands of International Importance.

What is the significance of Ramsar Site designation?

- Once designated, these wetland locations are known as Ramsar sites and are included on the Convention's List of Wetlands of International Importance.
- Countries agree to construct and oversee a management structure aimed at protecting the wetland and ensuring its sensible use when they designate a wetland as a Ramsar site.
- According to the Convention, wise use is widely defined as preserving a wetland's ecological integrity.
- Wetlands' ecological, botanical, zoological, limnological, or hydrological significance qualifies them for inclusion on the List of Wetlands of International Importance.

Ramsar Sites in India:

- In February 1982, India signed the Ramsar Convention.
- Approximately 2.5 million square kms are covered by over 2,400 Ramsar Sites worldwide.
- The greatest network of Ramsar Sites in South Asia is found in India, which has 49 declared wetlands (excluding the five sites that were recently designated) spread across 10,936 sq. km in 18 states and two union territories.
- The two countries with the most Ramsar sites are Mexico (142) and the United Kingdom (175).

TOMATO FLU OUTBREAK EMERGES IN INDIA AMONG CHILDREN

Priority: Low



Primary Source: Indian Express

Prepp Prelims Booster: Tomato FLU

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health ;Science and technology-Awareness in the fields of Biotechnology

Context:

Recently, a Tomato Flu outbreak has emerged in India, mostly among Children. It was first identified in the Kollam district of Kerala in May, 2022,

What is Tomato Flu?

- It is also known as Tomato fever. It is a rare contagious disease of viral nature in humans whose origins are not yet known. In general, it is not life-threatening in the general population.

Name

- Its name comes from the main symptom of this disease- the tomato-shaped blisters on several body parts.
- These blisters start as red-colored small blisters and with time they enlarge, resembling tomato shape, therefore it is known as tomato fever or tomato flu.

Cause

- It is believed that it is caused by intestinal viruses. Researchers are suggesting it could also be a new variant of the viral hand, foot, and mouth disease, a common infectious disease mostly affecting children aged 1–5 years and immunocompromised adults.

Contagious infection

- Like other cases of flu, it is also a highly contagious disease- spreading through direct contact.
- It mainly affects children below the age of five years. It is rare among adults due to their strong immunity.
- Adults can also transmit the virus to children while handling them without showing any signs and symptoms of the disease.

Symptoms

- It includes rashes, skin irritation and dehydration. It can also cause tiredness, joint pain, stomach cramps, nausea, diarrhoea, vomiting, coughing, sneezing, runny nose, high fever, and body ache.
- In some cases, it may cause discolouration of the legs and the hands.

Treatment

- It is a self-limiting one and there is no specific drug for it. The symptoms resolve overtime on their own if supportive care is given.
- Supportive care similar to the treatment of chikungunya, dengue and hand, foot, and mouth disease is recommended.
- Patients are advised to isolate, take rest and drink plenty of fluids and use hot water sponge for the relief of irritation and rashes.
- Hand-washing and basic hygiene are simple measures to prevent it. Clothes, utensils and other items used by the infected persons must be sanitised to prevent the flu from spreading.

AGASTHIYAMALAI: INDIA'S 31ST ELEPHANT RESERVE

Priority: Low



Primary Source: PIB

Prepp Prelims Booster: Elephant reserve

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation

Context:

- Recently, the Centre on the occasion of World Elephant Day (August 12) notified the establishment of a new elephant reserve at Agasthiyamalai in Tirunelveli district of Tamil Nadu.
- It will be India's 31st elephant reserve and the fifth in Tamil Nadu. Nilgiris-Eastern Ghat, Nilambur Silent Valley,

Srivilliputhur, and Anamalai are the four existing elephant reserves in Tamil Nadu.

- The new elephant reserve will now help the state seek funds under central schemes such as 'project elephant' for conservation measures.



Indian elephant (*Elephas maximus*)

- It is one of three recognized subspecies of the Asian elephant and native to mainland India. India has more than 60% of the population of Asian Elephants.
- It is found in 16 states in the country and geographically present in the central and southern Western Ghats, North East India, eastern India, northern India, and some parts of southern peninsular India.
- According to the 2017 elephant census, the population of elephants in India has reached about 27,312. Karnataka has the highest number of elephants (6,049), followed by Assam (5,719) and Kerala (3,054).
- Indian elephant (*Elephas maximus*) is the National Heritage Animal of India

Threats:

- Habitat loss, degradation and fragmentation, Man-animal conflict, poaching, and loss of genetic viability (diversity) due to small fragmented and isolated populations.

Protection Status:

- IUCN Status:** Endangered
- Indian Wildlife (Protection) Act, 1972:** included in Schedule I
- Convention of the Migratory species:** included in Appendix I

Convention on International Trade in Endangered Species of Flora and Fauna (CITES): included in Appendix I.

What are initiatives launched by India to protect elephants?

- Project Elephant:** It is a centrally sponsored scheme launched in 1992 for the protection of elephants, their habitats, and corridors. It ensures the protection of elephant habitat and elephant corridors for the survival of the elephant population in the wild. Under it, the Centre provides financial and technical help to states.

- Monitoring the Illegal Killing of Elephants (MIKE):** India is a member of this international effort for the conservation of elephants in Asia and Africa. It was established by the CITES in 1997. India has 10 MIKE sites.
- Gaj Yatra:** It is a nationwide awareness campaign launched in 2017 to celebrate elephants and highlight the necessity of securing elephant corridors
- Project RE-HAB (Reducing Elephant-Human Attacks using Bees):** It was launched by Khadi and Village Industries Commission (KVIC) in 2021. Under it, bee-fences are created by setting up bee boxes in the passageways of elephants to block their entrance to human territories. It is a cost-effective way of reducing human-wild conflicts without causing any harm to the elephants.

Elephant Range	Elephant Reserve with date of notification	State
Eastern India (South West Bengal- Jharkhand-Odisha)	1. Mayurbhanj ER (24.10.02)	W. Bengal
	2. Singhbhum ER (26.9.01)	Jharkhand
	3. Mayurbhanj ER (29.9.01)	Odisha
	4. Mahanadi ER (20.7.02)	Odisha
	5. Sambalpur ER (27.3.02)	Odisha
	6. Badalkhol-Tamorpingla (15.9.2011)	Chhattisgarh
North Brahmaputra (Arunachal – Assam)	7. Kameng ER (19.6.02)	Arunachal
	8. Sonitpur ER (6.3.03)	Assam
South Brahmaputra (Assam- Arunachal)	9. Dihing-Patkai ER (17.4.03)	Assam
	10. South Arunachal ER (29.2.08)	Arunachal
Kaziranga (Assam- Nagaland)	11. Kaziranga – Karbi Anglong ER (17.4.03)	Assam
	12. Dhangsiri-Lungding ER (19.4.03)	Assam
	13. Intanki ER (28.2.05)	Nagaland
	14. Singphan ER (16.8.18)	Nagaland
Eastern Dooars (Assam- W. Bengal)	15. Chirang-Ripu ER (7.3.03)	Assam
	16. Eastern Dooars ER (28.8.02)	W. Bengal
E. Himalayas (Meghalaya)	17. Garo Hills ER (31.10.01)	Meghalaya
Nilgiri –Eastern Ghat (Karnataka- Kerala- Tamilnadu-Andhra)	18. Mysore ER (25.11.02)	Karnataka
	19. Dandeli ER (26.3.15)	Karnataka
	20. Wayanad ER (2.4.02)	Kerala
	21. Nilgiri ER (19.9.03)	Tamil nadu
	22. Rayala ER (9.12.03)	Andhra
	23. Agasthiyamalai (12.08.22)	Tamil Nadu
South Nilgiri (Kerala- Tamilnadu)	24. Nilambur ER (2.4.02)	Kerala
	25. Coimbatore ER (19.9.03)	Tamilnadu
Western Ghat (Tamilnadu- Kerala)	26. Anamalai ER (19.9.03)	Tamilnadu
Periyar (Kerala- Tamilnadu)	27. Anamudi ER (2.4.02)	Kerala
	28. Periyar (2.4.02)	Kerala
Northern India (Uttaranchal-U.P.)	29. Srivilliputtur ER (19.9.03)	Tamilnadu
	30. Shivalik ER (28.10.02)	Uttarakhand
	31. Uttar Pradesh ER (9.9.09)	U.P.

SMILE-75 INITIATIVE

Priority: Low

Primary Source: PIB

Prepp Prelims Booster: SMILE-75

Why in the News

Recently, the Union Ministry of Social Justice & Empowerment launched SMILE-75 initiative to address the persisting problem of destitution and beggary. It was launched as part of the comprehensive scheme- SMILE (Support for Marginalised Individuals for Livelihood and Enterprise).

What is the SMILE-75 initiative?

- Under this initiative, 75 identified municipal corporations in collaboration with NGOs and other stakeholders will undertake comprehensive rehabilitation of persons engaged in the act of begging.
- It will cover several comprehensive welfare measures for persons who are engaged in the act of begging with focus extensively on rehabilitation, provision of medical facilities, counselling, awareness, education, skill development,

economic linkages and convergence with other government welfare programmes, etc.

What is SMILE (Support for Marginalised Individuals for Livelihood and Enterprise) Scheme?

1. It is a Central Sector scheme to provide welfare and holistic rehabilitation of Transgender community and people engaged in the act of begging.
2. It aims to build an India where no person is forced to beg in order to survive and fulfil their basic needs.
3. **Implementing Ministry:** Union Ministry of Social Justice and Empowerment.
4. **Budget Allocated:** It is implemented from 2021-22 to 2025-26 with budgetary allocation of Rs.100 crore.
5. **Implementation:** It is executed with the help of the respective State/UT governments, Local Urban Bodies, Non-Governmental Organisations (NGOs), Community Based Organisations (CBOs), Voluntary Organisations, Institutions, and others

Two sub-schemes of SMILE scheme are

1. **Comprehensive Rehabilitation of persons engaged in the act of Begging:** It will focus on survey and identification, mobilisation, rescue/ shelter home and comprehensive resettlement.

Objectives:

- (i) To make cities/towns and municipal areas begging-free.
- (ii) To make a strategy for comprehensive rehabilitation of the persons engaged in the act of begging through the coordinated action of various stakeholders.

Under this component, pilot projects have been launched on comprehensive rehabilitation in ten cities- Delhi, Chennai, Bangalore, Hyderabad, Indore, Lucknow, Mumbai, Nagpur, Patna and Ahmedabad.

2. **Central Sector Scheme for Comprehensive Rehabilitation for Welfare of Transgender Persons**

Objectives:

- (i) To strengthen and expand the reach of the rights that gives the targeted group the necessary legal protection and a promise to a secured life.
- (ii) Provide social security through multiple dimensions of identity, medical care, education, occupational opportunities and shelter.

Components:

- (i) Scholarships for transgender students from Class IX till post-graduation to enable them to complete their education.
- (ii) Skill development and livelihood under the PM-DAKSH scheme.
- (iii) Composite Medical Health package in convergence with Pradhan Mantri Jan Arogya Yojana (PM-JAY)- to support gender-reaffirmation surgeries through selected hospitals.
- (iv) Housing facility in the form of 'Garima Greh' to ensure food, clothing, recreational facilities, skill development opportunities and medical support.
- (v) Transgender Protection Cell in each state to monitor cases of offences and to ensure timely registration, investigation and prosecution of offences.

- (vi) National Portal & Helpline to provide necessary information and solutions to the transgender community and the people engaged in the act of begging when needed.

What is the status of beggars in India?

- According to the Census 2011, there are 4,13,670 beggars (including 2,21,673 males and 1,91,997 females) in India.
- Among large states, West Bengal had the highest number of beggars followed by Uttar Pradesh and Bihar.
- Among the union territories, New Delhi with 2,187 had the largest number of beggars followed by Chandigarh (121). Lakshadweep merely has two beggars.
- Among the northeastern states, Assam topped with 22,116 beggars. Mizoram ranked lowest with 53 beggars.

NAMASTE SCHEME: CENTRE TO UNDERTAKE MANUAL SCAVENGERS ENUMERATION EXERCISE

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: Manual Scavengers

Prepp Mains Booster: Welfare Schemes for Vulnerable Sections of the population by the Centre and States

Context:

Recently, the Union Ministry of Social Justice and Empowerment (MoSJ&E) announced that it will be conducting Manual Scavengers Enumeration Exercise as part of the National Action Plan for Mechanised Sanitation Ecosystem (NAMASTE) Scheme.



What is a Manual Scavengers Enumeration Exercise?

- It is a nationwide survey to identify and enumerate all Sanitation workers engaged in cleaning of sewers and septic tanks in order to streamline the process of rehabilitating them.
- It will be undertaken as a part of the National Action Plan for Mechanised Sanitation Ecosystem (NAMASTE) Scheme.
- It will be conducted across 500 AMRUT (Atal Mission for Rejuvenation and Urban Transformation) cities. It will be carried out by Programme Monitoring Units (PMUs) for the 500 AMRUT cities.
- Once this exercise is completed across these 500 cities, it will be expanded nationwide.

What is the National Action Plan for Mechanised Sanitation Ecosystem (NAMASTE) Scheme?

- It was launched in July 2022.
- It aims to achieve outcomes like zero fatalities in sanitation work in India, ensure no sanitation workers come in direct contact with human faecal matter and all Sewer and Septic tank sanitation workers have access to alternative livelihoods.
- It replaced and merged the Self-Employment Scheme for the Rehabilitation of Manual Scavengers (SRMS), which was started in 2007.
- **Implementation:** It is jointly implemented by the Ministry of Social Justice and Empowerment and Ministry of Housing and Urban Affairs.

NAMASTE Scheme aims to achieve the following outcomes:

- Zero fatalities in sanitation work in the country.
- Only allowing skilled workers to perform all sanitation work.
- Avoiding direct contact of sanitation workers with human faecal matter.
- Collectivising sanitation workers into SHGs and are empowered to run sanitation enterprises.
- Providing all Sewer and Septic tank sanitation workers (SSWs) access to alternative livelihoods.
- Strengthening supervisory and monitoring systems at national, state and Urban Local Bodies (ULBs) levels to ensure enforcement and monitoring of safe sanitation work.
- Increasing awareness amongst sanitation services seekers (individuals and institutions) to seek services from registered and skilled sanitation workers.

What is meant by manual scavenging?

The removal of human excrement from the public streets and dry latrines, as well as cleaning septic tanks, gutters, and sewers, is defined as manual scavenging.

What are the main causes for the prevalence of Manual Scavenging?

- According to a number of independent surveys, state governments continue to be reluctant to admit that the practice prevails under their watch.
- **Outsourcing Issues:** Local bodies many times outsource sewer cleaning tasks to private contractors. However, many of them are fly-by-night operators that do not maintain proper rolls of sanitation workers. These contractors have denied any association with the deceased in case after case of workers being asphyxiated to death.
- **Social Issues:** The practice is driven by caste, class, and income divides. It is tied to India's caste system, with so-called lower castes expected to perform this job.
- The employment of manual scavengers and the construction of dry latrines was banned in India in 1993 by The Employment of Manual Scavengers and the Construction of Dry Latrines (Prohibition) Act, 1993, but the stigma and discrimination associated with it persist.

This makes it difficult for liberated manual scavengers to find an alternative livelihood.

What steps are taken to combat the menace of manual scavenging?

The Prohibition of Manual Scavenger Employment and Rehabilitation Act, 2013

- It repealed the 1993 Act. It goes beyond prohibitions on dry latrines by outlawing all manual excrement cleaning of insanitary latrines, open drains, or pits.

The Prohibition of Employment as Manual Scavengers and their Rehabilitation (Amendment) Bill, 2020

- It seeks to amend the Prohibition of Employment as Manual Scavengers and Rehabilitation Act, 2013.
- It recommends completely mechanised sewer cleaning, introducing 'on-site' protection, and providing compensation to manual scavengers in the case of sewer deaths. It is yet to receive cabinet approval.

Building and Maintenance of Insanitary Latrines Act, 2013

- It outlaws the building or maintenance of unsanitary toilets, hiring of anybody for manual scavenging and hazardous cleaning of sewers and septic tanks.
- It also imposes a constitutional obligation to provide alternative jobs and other assistance to manual scavenging communities as reparation for historical injustice and indignity.

Scheduled Caste and Scheduled Tribe (Prevention of Atrocities) Act, 1989

- This is considered as an integrated guard for sanitation workers, as more than 90% of manual scavengers belong to the Scheduled Caste.
- It seeks to free manual scavengers from designated traditional occupations.

Safaimitra Suraksha Challenge

- It was launched by the Ministry of Housing and Urban Affairs in 2020 on the occasion of World Toilet Day (19th November).
- Under it, all states were challenged to mechanised sewer cleaning by April 2021 and to provide proper gear and oxygen tanks to cleaners needs to enter a sewer line in an unavoidable emergency.

Swachhta Abhiyan App

- It was launched in 2020 to identify and geotag the data about insanitary latrines and manual scavengers with the purpose of replacing insanitary latrines with sanitary latrines and rehabilitating manual scavengers for providing them with the dignity of life.

2014 Supreme Court Ruling (Safai Karamchari Andolan & Others Versus Union of India & Others)

- It ordered the government to identify all those who died in sewage work since 1993 and compensate their families with Rs. 10 lakh each.

INDIA HOSTED PRE-SUMMIT OF TIGER RANGE COUNTRIES

Priority: Low



Primary Source: PIB

Prepp Prelims Booster: Tiger Range countries

Prepp Mains Booster: Conservation, Environmental Pollution and Degradation.

Context:

Recently, India hosted the Pre-Summit meeting of Tiger Range Countries (TRCs) in New Delhi.



What was the Pre-Summit of Tiger Range Countries?

- The pre-summit was a prelude to the Tiger Range Countries Summit scheduled to be held at Vladivostok, Russia in September 2022.
- Its aim was to finalise the declaration on tiger conservation to be adopted at the Vladivostok Summit. It was attended by delegates of 12 TRCs except China and Indonesia.

Tiger Range Countries (TRC) include: India, Bhutan, Bangladesh, Cambodia, Lao PDR, Malaysia, Myanmar, Nepal, Russia, Thailand, Vietnam, China and Indonesia.

About Tiger

- Tiger (*Panthera tigris*) is the largest living cat species. It is a member of the genus *Panthera*. It is recognisable for its dark vertical stripes on orange fur.
- It is an apex predator. It is a territorial animal and generally a solitary but social predator, requiring large contiguous areas of habitat to support its requirements for prey and rearing of its offspring.
- Tiger cubs stay with their mother for around two years and then they become independent, leaving their mother's home range to establish their own.
- Tiger is both a flagship and umbrella species. As a Flagship species, it is important for conservation and as umbrella species, tiger conservation leads to conservation of other species. It is the national animal of India, Malaysia, Bangladesh and South Korea.

How many subspecies of Tiger are there?

- There are eight known subspecies of Tiger.
- Among the eight, five subspecies - Bengal (*Panthera tigris tigris*), South China (*Panthera tigris amoyensis*), Indochinese (*Panthera tigris corbetti*), Sumatran (*Panthera*

tigris sumatrae) and Siberian (*Panthera tigris altaica*) are present in the wild.

- Remaining three subspecies of tiger- Caspian (*Panthera tigris virgata*), Bali (*Panthera tigris balica*) and Javan (*Panthera tigris sondaica*) - are extinct.

What is the present tiger population?

- Just a century ago, there were more than 100,000 tigers. But as of 2022, the global wild tiger population is estimated to be around 4500, with most populations living in small isolated pockets.
- India with around 3000 tigers, currently hosts the largest tiger population in the world.

What is the significance of the Tiger?

- Tigers being the top predators in the ecosystem are vital in regulating and perpetuating ecological processes.
- It is at the apex of the food chain and keeps the population of wild ungulates (primarily large mammals) in check.
- It helps in maintaining the balance between prey herbivores and the vegetation upon which they feed.

What are the major reasons for the tiger population decline?

They are habitat destruction, habitat fragmentation and poaching. Tigers are also victims of human-wildlife conflict, due to encroachment in their habitats due to high human population density.

What is the Current Conservation Status of Tiger?

- International Union for Conservation of Nature (IUCN) Red List: Endangered.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I.
- Indian Wildlife (Protection) Act, 1972: Listed under Schedule I.

What is India's Tiger Conservation status?

- India is home to approximately 75% of the wild tigers at global level. It is home to 52 Tiger Reserves covering approximately 75,000 Sq Km area in 18 States to bring all the potential tiger habitats within these reserves.
- India achieved the goal of doubling the tiger numbers in 2018, four years in advance from the targeted year 2022-mandated by St. Petersburg Declaration (2010).
- 17 Tiger Reserves in India have received Conservation Assured | Tiger Standards (CA|TS) international accreditation and two tiger reserves (Pilibhit and Sathyamangalam) received International Tx2 Award.
- India has launched the Centrally Sponsored Scheme – Project Tiger (1973) to promote conservation of the tiger. It has been the largest species conservation initiative of its kind in the world.
- India is a founding member of the Global Tiger Forum, an inter-governmental platform to secure the future of wild tigers in tiger range countries.
- India also has bilateral agreements and MoU with several Tiger Range Countries. It is working with Cambodia by providing technical assistance for bringing back wild tigers.

DEFENSE

INDIA GIFTS DORNIER MARITIME SURVEILLANCE AIRCRAFT TO SRI LANKA

Priority: Low



Primary Source: The Hindu

Prepp Prelims Booster: India-Srilanka relations

Prepp Mains Booster: India and its neighbourhood- relations

Context:

Recently, India gifted Dornier maritime reconnaissance aircraft to the Sri Lanka Navy to further boost bilateral defence partnership. The aircraft will help to start cooperation between the Sri Lanka Air Force and Sri Lanka Navy with the Indian Navy in maritime surveillance.

What is the significance of India's decision?

- **Security requirement:** The aircraft will enable Sri Lanka to effectively tackle multiple challenges such as human and drug trafficking, smuggling and other organised forms of crime in its coastal waters.
- **Security Co-operation:** It underscores the cooperation between the two maritime neighbours in defence and security spheres.
- **In line with SAGAR:** It will add further capability and capacity to Sri Lanka and is in line with India's vision of Security and Growth for All in the Region (SAGAR).
- **Countering China:** The handing over of the Dornier aircraft by India was done the day before the docking of Chinese surveillance ship 'Yuan Wang 5' at the Southern port of Hambantota.

What is a Dornier maritime reconnaissance aircraft?

- It is a multi-purpose light transport aircraft manufactured by state-run aerospace major Hindustan Aeronautics Limited (HAL). It has been in production since 1981.
- It is a twin-turboprop Short Take-Off and Landing (STOL) utility aircraft.
- It has been developed specifically to meet the manifold requirements of utility and commuter transport, third level services and air-taxi operations, coast guard duties and maritime surveillance.
- **Roles Performed:** Maritime surveillance, electronic warfare missions, pollution prevention, troop transport, aerial survey, search and rescue, commuter transport, remote sensing applications, cargo & logistics support.

LASER GUIDED ANTI-TANK GUIDED MISSILE

Priority: Medium



Primary Source: Indian Express

Prepp Prelims Booster: Anti-tank guided missile

Prepp Mains Booster: Indigenization of Technology and Developing New Technology.

Context:

Recently, an indigenously developed anti-tank guided missile (ATGMs) was successfully fired from Arjun Main Battle Tank (MBT) at KK Ranges in Ahmednagar, Maharashtra. The test of this laser guide was conducted by the Defence Research and Development Organisation (DRDO) and the Indian Army.



What is an Anti-Tank Guided Missile (ATGM)?

- ATGM is primarily designed to hit and destroy heavily armoured military vehicles.
- It is a guided missile that uses various guiding algorithms like wire-guided missiles, laser guide etc
- It has multi-platform launch capability and can be transported by single soldier, tripod-mounted weapons, vehicle/tanks and aircraft.
- It is a 'fire-and-forget' missile that does not require further external intervention after launch.
- India's ATGM missile systems have been indigenously designed and developed by the DRDO.

Laser-Guided ATGM

- It is fitted with tandem High Explosive Anti-Tank (HEAT) Warheads to defeat Explosive Reactive Armour (ERA) protected armoured vehicles.
- It relies on an electro-optical imager (IIR) seeker, a laser or a W-band radar seeker placed at the nose.

What are different versions of Indian ATGMs?

- **Nag:** It is a third-generation fire-and-forget ATGM missile with a maximum range of 4 km. It has been developed for mechanized formations to engage heavily fortified enemy tanks.
- **Helina:** It is an air version of NAG ATGM designed and developed for integration on a weaponized version of the Advanced Light Helicopter.

- It has a maximum range of 7 kms. It has all-weather, day, and night capability. It can defeat battle tanks with conventional armour as well as explosive reactive armour.
- **MPATGM**: It stands for Man-Portable Anti-Tank Guided Missile developed for top attack capabilities for infantry use. It has a range of 2.5 kilometers and operates in a fire-and-forget mechanism.
- **SANT**: It is a Smart Stand-off Anti-Tank Missile. It is an air version of ATGM developed for launch from the Mi-35 Helicopter for the Indian Air Force's anti-tank operations.
- **ATGM for MBT Arjun**: It is a laser-guided, precision-guided munition. It can be launched from a 120mm rifled gun of the Arjun tank to engage and defeat explosive reactive armour-protected armoured targets.

EXERCISE AL NAJAH

Priority: Low

Primary Source: PIB

Prepp Prelims Booster: Military Exercise

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- The **Royal Army of Oman and the Indian Army** are set to participate in the 4th Edition of the India-Oman Joint Military Exercise "**AL NAJAH-IV**" from August 1–13, 2022, at the Mahajan Field Firing Ranges in Rajasthan.
- The Indian Army is represented by troops from the 18 MECHANIZED INFANTRY Battalion. Ex AL NAJAH IV's previous edition was held in Muscat from March 12 to March 25 of 2019.



What is the objective of the Exercise?

- The exercise's objectives include **fostering professional relationships**, ensuring that participants understand each other's drills and procedures, **establishing joint command and control structures**, and eliminating terrorist threats.

- In addition to **planning cooperative physical training schedules**, tactical drills, methods, and procedures, the joint exercise would concentrate on **Counter Terrorism Operations, Regional Security Operations**, and Peacekeeping Operations under the United Nations Charter.
- The joint military exercise will further manifest in **improving bilateral ties between the two countries** and intends to increase the level of defence cooperation between the Indian Army and Royal Army of Oman.

India-Oman Bilateral relations

- In the Gulf Cooperation Council (GCC), **Arab League**, and **Indian Ocean Rim Association (IORA)** fora, the Sultanate of Oman is a significant partner and interlocutor for India.
- Geographically, historically, and culturally, India and Oman are connected, and their relations are friendly and warm.
- Despite the fact that human contact between India and Oman dates back 5000 years, diplomatic relations between the **two countries were only established in 1955**.
- In 2008, the collaboration was upgraded to a **strategic partnership**.

Economic & Commercial Relations

- One of Oman's biggest trading partners is India. In 2019, India was Oman's third-largest market for non-oil exports and third-largest source of imports (after the United Arab Emirates and China).
- Mineral fuels and the products of their distillation, textiles, machinery, electrical goods, chemicals, iron and steel, tea, coffee, spices, rice, meat products, and seafood are among India's top exports. Urine, LNG, polypropylene, lubricating oil, dates, and chromite ore are a few of the main imports into India.
- Oman-India Joint Investment Fund (OIJIF) is a 50-50 Joint Venture between State Bank of India and erstwhile State General Reserve Fund (SGRF) of Oman.

UDARASHAKTI: INDIA-MALAYSIA AIR EXERCISE

Priority: Low

Primary Source: PIB

Prepp Prelims Booster: Bilateral Exercise

Prepp Mains Booster: Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests

Context:

Recently, a contingent of the Indian Air Force (IAF) left for Malaysia to participate in a bilateral exercise named 'Udarashakti'. Both countries also conduct an annual military exercise - Harimau Shakti.

What are the highlights of the Udarashakti Exercise?

- Su-30 MKI and C-17 aircrafts will be participating from IAF, while Malaysian Royal Air Force (MRAF) will be represented by Su 30 MKM aircraft.
- In this four days exercise, air forces of both countries will conduct various aerial combat drills.

Background

- The first bilateral exercise between IAF and MRAF was conducted in 2018, staging frontline Sukhoi-30 combat aircrafts from both countries.
- Prior to that, IAF Training Team was deployed in Malaysia to give training to Malaysian pilots on the SU-30 SKM aircraft from 2008 to 2010.

What is the Significance of the Exercise?

- It will help in strengthening long-standing friendships and enhance defence cooperation between both countries. It will also result in strengthening regional security.
- It will give IAF an opportunity to share and also learn best practices with the RMAF. It will also enhance mutual combat capabilities of both countries.

India-Malaysia Relations

- India established diplomatic relations with Malaysia in 1957, immediately after Malaysia's independence.
- Presently, both countries have developed close political, economic and socio-cultural relations. There is a considerable goodwill for India in Malaysia at people to people level, which hosts the third largest Persons of Indian Origin (PIO) community in the world.
- They are witnessing growing engagements in all aspects of bilateral relationship, including political, economic and trade, defence and security, education and tourism, health, human resources, public administration, etc.
- In 2010, Strategic Partnership relationship was established and strengthened to Enhanced Strategic Partnership in 2015.

Significance of Malaysia for India

- 9% of the population of Malaysia is of Indian origin, so assumes an important place in India's foreign policy.
- Geographically, it is surrounded by busy sea lines of communications (SLOCs) such as the Strait of Malacca and the South China Sea. It is also a key pillar of India's Act East policy and critical to India's maritime connectivity strategies.

Economic Relation

- Malaysia is the 13th largest trading partner of India and third largest trading partner in ASEAN.

- Bilateral trade between them is significantly in favour of Malaysia. In 2018-19, the bilateral trade was US\$ 17.24 billion, with India's exports to Malaysia being US\$6.43 billion and imports from Malaysia being US\$ 10.81 billion.
- In 2011, both countries had signed the Comprehensive Economic Cooperation Agreement (CECA) covering goods, services and investment.

Defence & Security Cooperation

- The MoU on Defence Cooperation signed in 1993 is the cornerstone of defence relations between India and Malaysia. Both countries annually host joint military exercise "Harimau Shakti".

Institutional mechanisms established between India and Malaysia:

- Joint Commission Meeting
- Foreign Office Consultations
- India-Malaysia Defence Cooperation Meeting
- India-Malaysia CEOs' Forum

Traditional medicine

- Both countries signed a MoU on cooperation in the field of Traditional Medicine in October 2010.
- Malaysia is also working to popularise India's AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy) systems.

Recent Developments

- The former Prime Minister of Malaysia in 2019 had criticised India's Citizenship Amendment Act (CAA). India had diplomatically condemned it as interference in the internal matters of India.
- In response to it, India had banned palm oil imports from Malaysia. But, it was resumed again in 2020, after a gap of four-month following a diplomatic row between the two countries.

PLACES IN NEWS

19TH ASEAN-INDIA ECONOMIC MINISTERS' MEETING

- The 19th ASEAN-India Economic Ministers' Meeting took place in Siem Reap City, Cambodia, on September 16, 2022.
- The 19th ASEAN-India Economic Ministers' Meeting was attended by the economic ministers or their representatives from each of the ten ASEAN nations: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.
- The 19th ASEAN-India Economic Ministers' Meeting in 2022 was co-chaired by Smt. Anupriya Patel, Minister

of State for Commerce and Industry, and H.E. Pan Sorasak, Minister of Commerce, Kingdom of Cambodia.



CAMBODIA COURT REJECTS GENOCIDE APPEAL OF LAST SURVIVING KHMER ROUGE LEADER

Cambodia's UN-backed tribunal for the Khmer Rouge has upheld a genocide conviction against the regime's last surviving leader, more than 40 years after Pol Pot's brutal communist regime fell.



KYRGYZSTAN TAJIKISTAN CONFLICT

- Along several points of the disputed border between the neighbouring Tajik and Kyrgyz provinces of Batken and Soghd, respectively, Tajik and Kyrgyz forces exchanged continuous gunfire.
- Families are being uprooted and relocated in Kyrgyzstan's Batken region. Out of the 5,50,000 or so residents of the Batken region, almost 1,50,000 have either fled the area or have been relocated by the government, according to the Kyrgyzstani Ministry of Emergency Situations. There is no difference in the circumstance in Osh, Kyrgyzstan. Additionally raising tensions are the heavily fortified borders.



MALAWI FIRST COUNTRY IN SOUTHERN AFRICA TO ELIMINATE TRACHOMA: WHO

- Malawi has become the first country in southern Africa to eliminate trachoma, the World Health Organization (WHO) announced September 21, 2022.
- This makes Malawi the fourth country in WHO's Africa region to achieve this milestone after Ghana (June 2018), Gambia (April 2021) and Togo (May 2022).



POLAND OPENS NEW CANAL FOR SHIPS TO SAIL FROM BALTIC SEA TO VISTULA LAGOON PORTS

- In order to avoid relying on the Strait of Pilawa in Russia, Poland has opened a new sea waterway that allows ships to travel from the Baltic Sea and the Bay of Gdansk to ports along the Vistula lagoon.
- The new canal was inaugurated on the 83rd anniversary of the Soviet invasion of Poland during WWII. Ships can now sail from the Baltic Sea and the Bay of Gdansk to Elblag and other ports in the lagoon without obtaining permission to pass through Russia's Strait of Pilawa.
- The distance from the Baltic to Elblag is also cut by about 100 km.



G4 NATIONS MEETING

- Foreign ministers from the Group of Four (G4), which consists of Germany, Brazil, Japan, India, and the United States, recently took part in a virtual meeting.
- The heads of state and government at the 2005 World Summit anticipated an early and comprehensive reform of the Security Council, and the Ministers reaffirmed their shared resolve to finally take meaningful action in that direction.



COLOUR REVOLUTION

- Chinese President Xi Jinping has warned his Central Asian neighbors against allowing outsiders to destabilize them with "colour revolutions." The term "colour revolution" is used by media outlets around the world to refer to a variety of protest movements and the accompanying attempted or successful overthrow of governments that occurred in a number of nations of the former Soviet Union, the former Yugoslavia, and the People's Republic of China in the early twenty-first century.
- The phrase has also been used more frequently to refer to several other revolutions that took place elsewhere and lasted from the late 1980s to the 2020s, including those in the Middle East, the Asia-Pacific region, and South America.



INDIA EMERGES AS SRI LANKA'S LARGEST BILATERAL LENDER

- India surpasses China to become Sri Lanka's largest bilateral lender. India has loaned Sri Lanka a total of 968 million US dollars in the first four months of 2022.
- In the period between 2017 and 2021, China was Sri Lanka's largest bilateral lender.



TYPHOON NANMADOL

Typhoon Nanmadol, one of the biggest storms to hit Japan in years, killed at least two people and brought ferocious winds and record rainfall to the west of the country, causing transport disruptions and forcing manufacturers to suspend operations.



INDIA FIRST LITHIUM ION CELL FACTORY IN ANDHRA PRADESH

In Tirupati, Andhra Pradesh, Munoth Industries Limited will establish India's first lithium ion cell production project by investing Rs 799 crore over three phases.



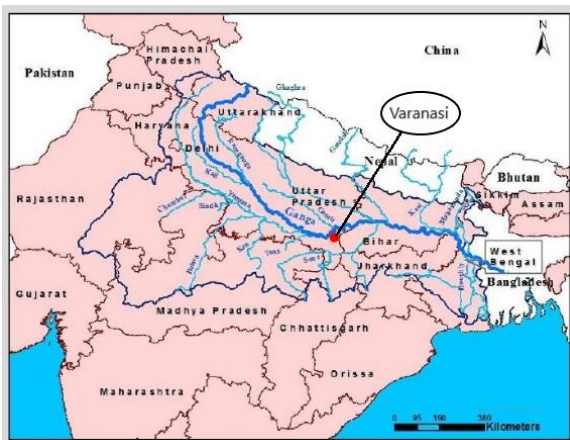
WORLD HERITAGE VOLUNTEERS (WHV) CAMP-2022 AT THE REVERED RAMAPPA TEMPLE

The Kakatiya Heritage Trust, based in Warangal, plans to host a 12-day World Heritage Volunteers (WHV) Camp-2022 at the revered Ramappa temple in Palampet of the Mulugu district.



VARANASI NOMINATED AS SCO TOURISM AND CULTURAL CAPITAL

In Samarkand, Uzbekistan, recently, the Council of Heads of State of the Shanghai Cooperation Organization (SCO) proposed Varanasi as the first-ever SCO Tourism and Cultural Capital. The title will help in promoting the cultural values of the city and add to the economic and social values.



ANTI-RADIATION PILLS FOR NUCLEAR EMERGENCY IN UKRAINE

As worries about a nuclear accident at Ukraine's Zaporizhzhia power plant grow, the European Union has made the decision to provide 5.5 million anti-radiation pills as a preventative measure to be given out to locals. People receiving the pills are instructed to wait until a radiation leak has been verified before taking them.

RUSSIA-UKRAINE WAR

Nuclear power in Ukraine

The UN atomic watchdog, IAEA, has warned that damage to the Zaporizhzhia power plant could lead to a nuclear disaster. The Zaporizhzhia Nuclear Power Plant is Europe's largest nuclear facility, captured by Russian forces in March.

