

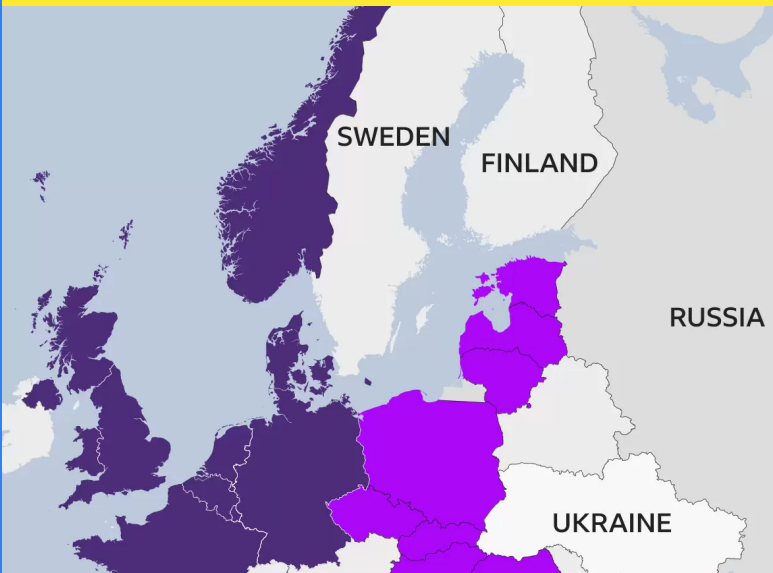
Monthly



Current Affairs

Notes

April 2023



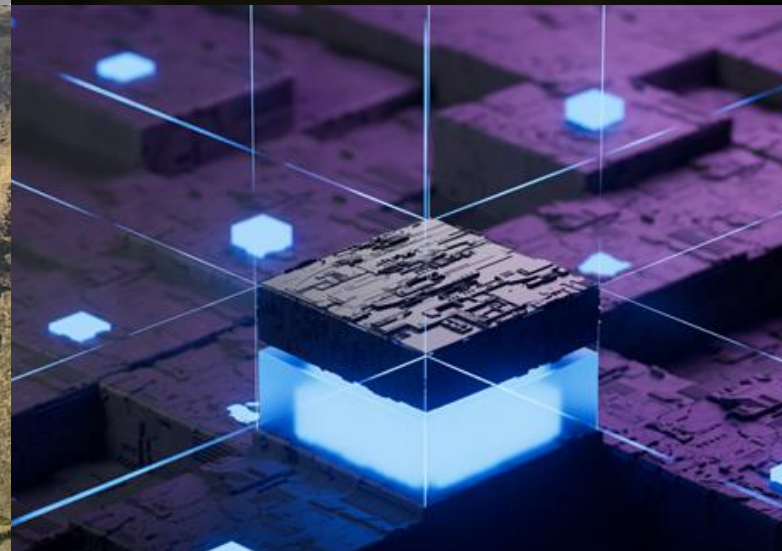
Finlands Journey to NATO



India Space Policy 2023



Vibrant Villages Program



National Quantum Mission(NQM)

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GENERAL STUDIES 1

Salient features of Indian Society, Diversity of India, Social empowerment

Wordplay': Activists Criticise Centre For Refuting 'Indigenous Peoples' Concept At UNPFII



Priority: Medium

Primary Source: Down to Earth

Prepp Prelims Booster: UNPFII

Prepp Mains Booster: Salient features of Indian Society, Diversity of India, Social empowerment, GS2 - Important International institutions, agencies and fora- their structure, mandate.

Context:

- Recently, Adivasi activists have criticized the statement made by the Indian Representative at the United Nations Permanent Forum on Indigenous Issues who stated that the concept of indigenous people was not applicable in the Indian context.
- The UNPFII, which is the largest international gathering of indigenous people, was held in New York between April 17th and 28th, 2023.



What is the Indian statement made at the UNPFII about?

- Adivasi activists have criticized the statement made by the Indian representative at the General Discussion of the UNPFII according to which the concept of 'indigenous people' was not applicable to India.
- The Indian representative at the UNPFII had stated during the General Discussion that "**indigenous rights**" pertained to **people in countries who are regarded as indigenous due to their descent from the populations which were the original inhabitants of the country or its larger geographical region at the time of its conquest, colonization or the establishment of its present boundaries.**
- These people retained some or all of their cultural, economic, and social institutions regardless of their legal status.
- The Indian representative claimed that this definition was used in the **International Labour Organization Convention 169 of 1989.**
- He also stated that the **entire population of India at the time of Independence and their descendants are regarded as indigenous** in accordance with the ILO definition.
- The Indian representative also raised concerns about the misuse of forums like the UNPFII. He stated that the concept of indigenous people cannot be expanded to create artificial divides in inclusive societies where diverse communities had coexisted for a millennium.
- The Representative also refuted any such selfish claims which misused and tarnished the reputation of such forums.

What are the arguments made by activists?

- Tribal activists claimed that the **statement and other declarations by the Government of India that India had 'tribal people' and not 'indigenous people'** was wordplay and not logically founded.
- According to the Director of the Jharkhand Jungle Bachao Andolan, the Union Government has not heeded the disagreements of indigenous

groups to the government's position that there are only tribal people and no indigenous people in India.

- The UN's understanding of the idea of indigenous people was not based on the definition in ILO Convention 169 but was based on the knowledge that different geographies have experienced different processes and histories.
- Critics of the government's position have pointed out that colonization was not necessarily European colonization.
- Each country had experienced colonization in some form. According to a researcher, if the pre-Aryan invasion is considered the cut-off period, then all people who were in the region before that could be considered indigenous.
- According to Adivasi activists, if the government's viewpoint that all Indians are indigenous is accepted, then the people of the Scheduled Tribes could be called indigenous people.
- They also claimed that to then say ST people are not indigenous is equal to questioning whether they are Indians.
- Activists have also found elements related to indigenous people in international law in Indian laws specific to the Scheduled Tribes.
- They have cited the World Bank and Asian Bank statements according to which indigenous people operatives apply to STs in India. They have further claimed that the government has to sign documents stating this in order to receive funds from these bodies.
- Another argument made by the activists was that the term 'Adivasi, which is used to describe the tribal people, translates into 'First or Indigenous People'.



United Nations Permanent Forum on Indigenous Issues

What is the UNPFII?

- The **United Nations Permanent Forum on Indigenous Issues or UNPFII** is an advisory body to the **Economic and Social Council** which also acts as the UN's coordinating body on indigenous peoples.
- It was established in 2000 with its headquarters in New York.
- It is one of the three bodies authorized to deal with the issues affecting indigenous peoples along with the **Expert Mechanism on the Rights of Indigenous Peoples and the Special Rapporteur on the rights of indigenous peoples.**
- Mandate:** The UNPFII is authorized to deal with issues related to the economic and social development, culture, environment, education, health, and human rights of indigenous people.

• Functions:

- Promote integration and coordination of activities related to indigenous people's issues within the UN framework
- Promote the application and ensure respect for all provisions of the UN Declaration on the Rights of Indigenous Peoples
- The theme of the 22nd edition of the UNPFII, which was held in New York between the 17th and 28th of April 2023, was **“Indigenous Peoples, human health, planetary and territorial health and climate change: a rights-based approach”**.
- The event also included discussions about the 2030 Agenda for Sustainable Development which was adopted by the UN General Assembly in 2015.

Role of indigenous women

- Other points of discussion included indigenous women, indigenous languages, the Convention on the Elimination of All Forms of Discrimination Against Women, the UN Indigenous Mechanisms, and the future work planned by the Forum.
- According to the delegates, **Indigenous women and girls were best placed to uplift their communities and develop solutions for the global climate crisis based on their experiences.**
- The empowerment of women by enabling them to access positions of innovation and leadership is critical to the achievement of climate goals.

Population and Associated Issues

India's Population To Edge Ahead Of China's By Mid-2023

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Geography

Prepp Mains Booster: Population and Associated Issues

Context:

- According to the **United Nations Population Fund's (UNFPA) State of World Population report, India will overtake China as the world's most populated country by the middle of 2023.**
- India's population is expected to be 142.86 crore, compared to China's 142.57 crore. This means that India will have 29 lakh more people than its Asian neighbor.

What does the State of World Population Report 2023 say?

- According to the United Nations Population Fund's (UNFPA) State of World Population (SOWP) report, India has surpassed China in population.
- The United States ranks third, with an estimated population of 34 crore. In November 2022, the world's population will reach 800 billion.
- According to the analysis, contrary to popular belief, population trends worldwide indicate slower growth and aging societies.
- Only eight countries will account for half of projected global population growth by 2050 – the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines, and the United Republic of Tanzania – while two-thirds of people now live in a country where lifetime fertility corresponds to zero growth.

Highlights of the report

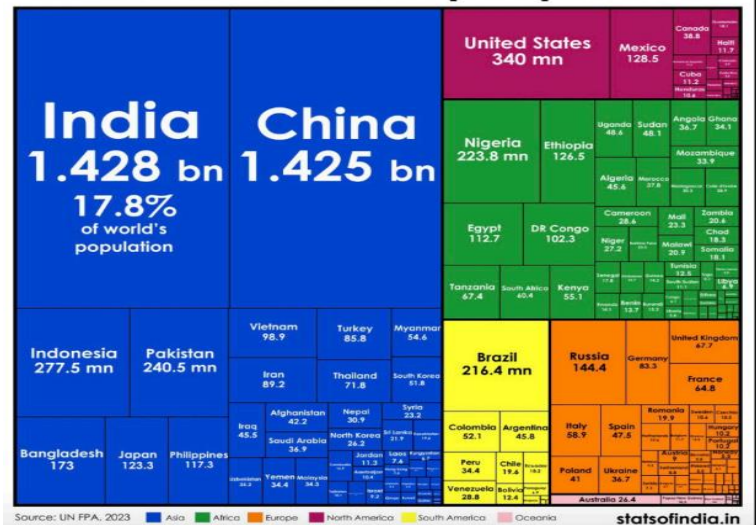
- According to the UNFPA, the world's population is 8,045 million, with the majority (65%) being between the ages of 15 and 64, followed by those between the ages of 10 and 24 (24%). 10% of the population is above the age of 65.
- According to the UN's 2022 estimate, the world's two most populated areas are Eastern and South-Eastern Asia, with 2.3 billion people (29 percent of the global population), and Central and Southern Asia, with 2.1 billion (26 percent). China and India had the highest populations in these areas, with over 1.4 billion each in 2022.
- By 2037, Central and Southern Asia are predicted to be the most populated area on the planet.
- Earlier UN assessments predicted that population growth in South Asia will begin to slow before 2100. According to the latest UN forecasts, the

world population might reach 8.5 billion in 2030, 9.7 billion in 2050, and 10.4 billion in 2100.

How has life expectancy contributed to global population growth?

- The UNFPA has identified rising life expectancy as one of the causes of global population expansion.
- Fertility rates have fallen in several regions of the world, as have death rates, thanks to improved access to health care and higher living standards.
- This also implies that regions of the world, such as Japan, are quickly aging.
- According to the 2023 study, men now have a life expectancy of 71 years, while women have a life expectancy of 76 years.
- Globally, life expectancy reached 72.8 years in 2019, an increase of about 9 years from 1990.
- Further mortality decreases are expected to result in a worldwide average lifetime of roughly 77.2 years in 2050. The proportion of the world population aged 65 and older is expected to climb from 10% in 2022 to 16% in 2050.
- According to the UN, by 2050, the number of people aged 65 and over will be more than double that of 5-year-olds and the same as 12-year-olds.

Where do 8 billion people live?



Statistics regarding Gender Rights in India

- The survey also revealed alarming figures on gender rights in India. The adolescent birth rate per 1,000 females aged 15-19 was 11, and 23% of girls were married off before the age of 18.
- Violence by an intimate partner was reported by 18% of women in the previous year, whereas 66% of women had decision-making on sexual and reproductive health and reproductive rights.
- A bit more than 80% of women had some input in healthcare decisions.
- When contemplating population change, over 63% of Indians named different economic difficulties as the main worries, followed by environmental concerns at 46%.
- About 30% were concerned about sexual and reproductive health and rights, as well as human rights.
- Respondents in India stated that their country's population was too enormous and fertility rates were too high. There was no substantial variation in men's and women's perspectives on national fertility rates in India.

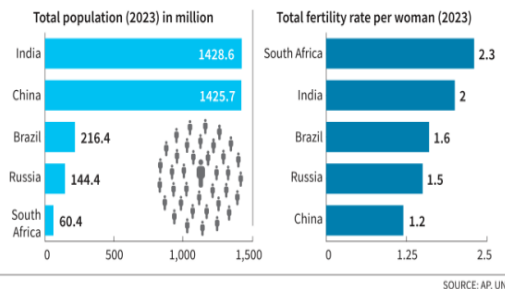
Where does India stand in the global population?

- According to the UN, India currently has 1,428.6 million people, making it the world's most populated country, surpassing China's population.

- As much as 68% of India's population is between the ages of 15 and 64, with 26% between the ages of 10 and 24, making India one of the world's youngest countries.
- However, the fertility rate in India has been progressively declining.
- According to the National Family Health Survey (2019-21), India achieved a Total Fertility Rate of 2.0 for the first time, fewer than the replacement level of 2.1, down from 2.2 in NFHS 4 (2015-16).
- India's enormous population is a product of past decades' "population momentum," and the country's population is expected to begin declining closer to 2050.

Rising strength

The United Nations said in a report that India will have about 2.9 million people more than China in the middle of 2023. India was not expected to become the most populous nation until later this decade. But it happened quickly due to a drop in China's fertility rate. Among BRICS nations, India has the second highest total fertility rate of 2 while that of China's is the least at 1.2



Recommendations

- It was urged that governments implement policies that prioritize gender equality and rights, such as parental leave programs, child tax credits, workplace regulations that promote gender equality, and universal access to sexual and reproductive health and rights.
- Imposing such standards can result in imbalanced sex ratios, preferred health and nutrition for male children, denial of paternity for female children, violence against women for having girl children, and compulsion of women to have fewer or more children.
- With nearly half of its population under the age of 25, India has a time-limited opportunity to benefit from the demographic dividend, which must be translated into economic benefits through additional investments in health, education, and quality jobs for young people, including targeted investments in women and girls.
- The research urged that governments implement policies that prioritize gender equality and rights, such as parental leave programs, child tax credits, workplace regulations that promote gender equality, and universal access to sexual and reproductive health and rights.

Scheme For Refugees From Pakistan Hits Rough Patch

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

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

Context:

- A Central government scheme to provide financial assistance of Rs.5.5 lakh per family to over 5,000 Hindu and Sikh families who migrated to India from Pakistan's West Punjab after the 1947 partition has been extended until March 31, 2024, amid several issues ranging from a lack of documents to a tepid response from families.

Background

- After the partition of the Indian subcontinent in 1947, thousands of families from Pakistan-occupied regions of Jammu and Kashmir (PoJK) moved to India from then-West Pakistan.
- The Central Government and the State Government of J&K have periodically extended a number of aid and rehabilitation packages to WPRs in order to alleviate the suffering of displaced people and to rehabilitate them.

About the Scheme

- The Union Government granted financial aid to West Pakistan Refugees (WPRs) in the sum of Rs. 5.5 lakh per household. It will help the families of WPRs who have moved to Jammu and Kashmir.
- The scheme came into effect in June 2018. Based on State Government authentication, a sum of Rs. 5.5 lakh per household will be deposited in the bank accounts of qualified recipients.

What is the issue?

- It was claimed that so far, only 903 families have had their cases resolved.
- Several claims could not be handled, because the people were unable to present authentic papers, such as refugee certificates, when they entered India from Pakistan's Sialkot in 1947.
- It was also stated that the entire plan was riddled with corruption, with tax employees requiring bribes before clearing the papers.
- It was claimed that in some instances, applicants lacked excitement because their families had grown over the previous 75 years, and the total amount when split among all members was very low.
- When the initial claimant who came to India in 1947 is still alive, the procedure is simple. However, splitting the money among several family members requires time.
- Many do not register because they have branched out and settled in other areas of India, and the quantity is insufficient.

Allocation of Fund

- The Ministry of Home Affairs reimburses the fund to the J&K management based on record checking performed by the latter.
- In the 2023-24 Budget, Rs.25 crore has been allocated for the scheme. After the scheme was enacted in 2018, the overall outlay was Rs.317 crore.

India's Refugee Policy

- Despite the increasing influx of refugees, India lacks specific legislation to address the issue.
- India is not a signatory to the 1951 Refugee Convention or its 1967 Protocol**, which are the primary legal documents governing refugee protection.
 - However, India has a stellar record in terms of refugee protection. India has a moral tradition of assimilating foreign people and cultures.
- The Foreigners Act of 1946 fails to address the unique issues that refugees face as a group. In addition, the Indian constitution protects human life, liberty, and dignity.
- In National Human Rights Commission vs. State of Arunachal Pradesh (1996), the Supreme Court held that "while all rights are available to citizens, persons including foreign citizens are entitled to the right to equality and the right to life, among others."
- Article 21 of the Constitution includes the right to non-refoulement.
 - Non-refoulement is the international law principle that states that a person fleeing persecution in his own country should not be forced to return to his home country.

Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclones etc., geographical features and their location changes in critical geographical features

Understanding Temperature Anomalies

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Geography

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

Context:

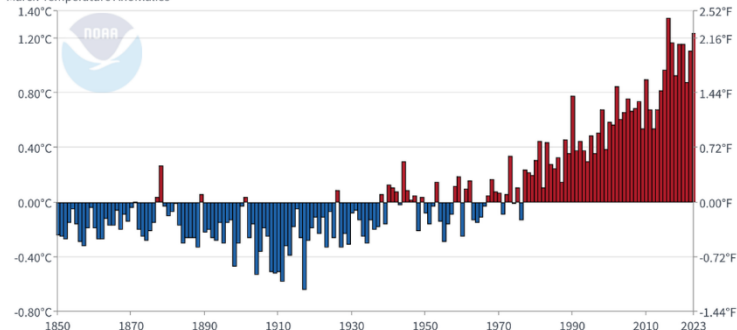
- In this article, Raghu Murtugudde, a visiting professor at IIT Bombay and an emeritus professor at the University of Maryland has discussed **how March 2023 was the second warmest month on record** and what this truly means in terms of influence on the globe, local weather, and the human psychology.

What is a temperature anomaly?

- Temperature anomaly refers to the difference between the average temperature of a specific time period (usually 30 years) and the temperature at a specific location and time. This difference is often used as an indicator of global warming and climate change.
- Climate scientists use temperature anomalies to study changes in Earth's temperature over time. They calculate the temperature anomaly by comparing the temperature of a given month or year to the long-term average temperature for that month or year. If the temperature is higher than the average, it is a positive temperature anomaly, while if it is lower, it is a negative temperature anomaly.
- Positive temperature anomalies can indicate warming trends in a particular region or globally, while negative temperature anomalies can indicate cooling trends. Temperature anomalies are usually expressed in degrees Celsius or Fahrenheit.

Variability in Climate

- March 2023 was the second hottest month on record.
- The **warmest March occurred just a few years ago, in 2016**, when the largest El Nino of the twenty-first century sparked a **'mini' global warming**.
- However, the average temperature anomaly from January to March in 2023 ranks as the fourth highest on record.
- In India, we anticipate the start of the sweltering summer season in March. However, a specific year's March may be colder owing to other climate conditions, such as a La Nina, especially when averaged over a wide territory such as India or even an Indian state.
- An 'El Nino year' occurs when warmer water sweeps over the equatorial Pacific Ocean in a belt from west to east.
- During a 'La Nina year,' colder water travels east to west in the same region.
- Both phenomena have different and profound influences on the global climate.

Global Land and Ocean
March Temperature Anomalies**El Nino**

- El Nino is a weather phenomenon that describes the anomalous warming of surface waters in the eastern tropical Pacific Ocean.
- It happens more often than La Nina.
- Fishermen off the coast of Peru noted El Nio as the presence of unusually warm water.
- El Nino is not a regular cycle or predictable in the same way that ocean tides are.

La Nina

- It is the reverse phenomenon of El-Nino. The temperatures over the eastern Pacific Ocean decrease, along with a decrease in rainfall.

- Also, the rainfall over the Indian subcontinent increases, along with augmentation of the strength of surface-level easterly winds.

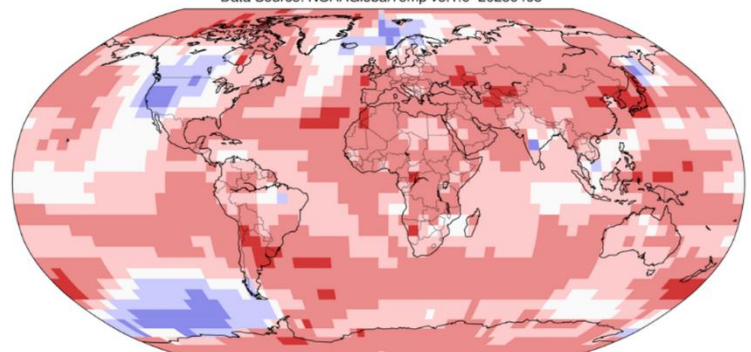
Temperature Anomalies for March 2023

- The map of temperature anomalies shows the distribution of temperature departures from the baseline long-term average March temperature for March 2023.
- The tremendous warming to the west and north of India begins to tell the narrative of meteorological anomalies that resulted in a milder March over Mumbai, excessive pre-monsoon rains over the northwest, and scorching heat waves in Kerala and Odisha.
- The Arabian Sea** has also warmed more than predicted this March. If this persists, it may favor a larger monsoon but may also boost cyclogenesis (the birth of cyclonic circulation) over the Arabian Sea.
- The worldwide distribution of temperature anomalies is caused by land-ocean-atmosphere systems that dynamically influence weather and climate.
- Global warming** does not entail that each month or year will be warmer than the preceding month or year.
- The distribution of temperature anomalies for March 2023 is driven by a mix of **global warming and natural variability such as El Nino and La Nina**.

Land & Ocean Temperature Percentiles Mar 2023

NOAA's National Centers for Environmental Information

Data Source: NOAAGlobalTemp v5.1.0-20230408

**Significant impact on planet**

- Environmental and Ecological changes:** Rising temperatures can lead to a range of environmental and ecological changes, including melting of polar ice caps, rising sea levels, ocean acidification, changes in precipitation patterns, and increased frequency and intensity of extreme weather events.
- These changes can have far-reaching consequences for ecosystems, biodiversity, and the human societies that depend on them.
- Loss of habitat for species:** The melting of polar ice caps and rising sea levels, can lead to loss of habitat for species that rely on these areas for survival.
- Coastal Erosion:** It can also cause coastal erosion and flooding, which can have significant impacts on infrastructure, economies, and communities.
- Changes in precipitation patterns can lead to droughts in some regions, while causing flooding in others, leading to agricultural losses, water shortages, and increased risks of disease outbreaks.
- The increased frequency and intensity of extreme weather events can also have major consequences, including property damage, loss of life, and disruptions to transportation, energy systems, and other critical infrastructure.

Conclusion

The impacts are not limited to any one region of the world, but are likely to be felt globally. Thus, it is crucial that we take steps to mitigate the effects of

climate change and address the underlying causes of these changes. While year-to-year temperatures may be higher or lower than the previous year, due to natural climatic variability, each decade is currently warmer than the preceding one on a global scale. Climate scientists need to provide the proper context, when comparing and ranking particular months. This will help the general public better grasp global warming and its cascading consequences on the weather they encounter every day.

What is Relative Humidity And Why Does It Matter On A Hot Day?



Priority: Low

Primary Source: The Hindu

Prepp Prelims Booster: Geography

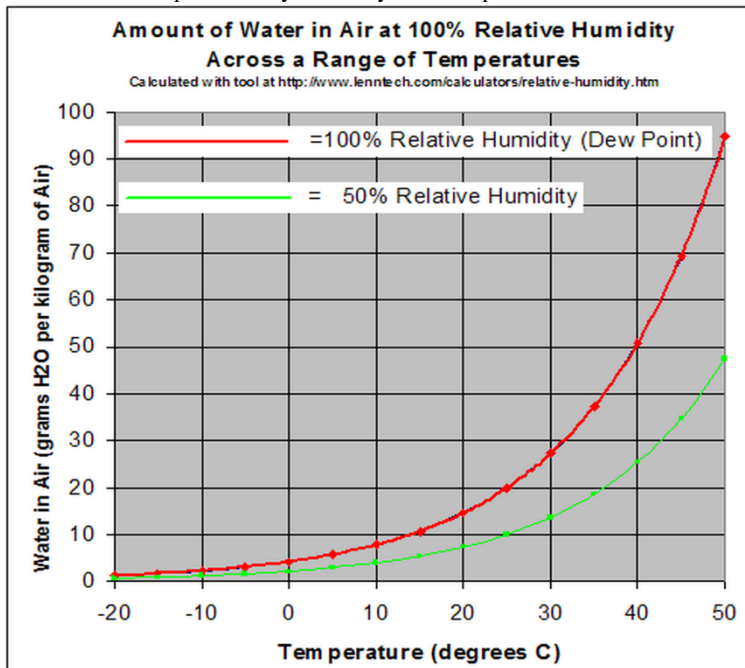
Prepp Mains Booster: Important Geophysical phenomena

Context:

- In this article, Vasudevan Mukunth, from the Hindu has discussed the concepts related to Relative Humidity.
- Relative humidity is a basic concept in terms of weather phenomena, but it has major, far-reaching implications for how we must care for ourselves on a hot or wet day.

What is Humidity?

- Humidity** is basically the amount of water vapour in the air. The amount of water vapour that the air can hold is determined by its **temperature**.
- Humidity is of three types namely absolute, relative, and specific humidity.
 - Absolute humidity:** the amount of water vapour in a given volume of air and water vapour combination, expressed in kg/m³.
 - Specific humidity**, which is equal to the mass of moisture divided by the mass of air. It is stated as a dimensionless number (but sometimes also as grams per kilogram, among other related units).
 - Relative humidity**, which is essential since it considers the quantity of vapour that air can contain at different temperatures. Its value is slightly harder to calculate: it is the vapour density of the air divided by the saturation vapour density at the dry-bulb temperature.



About Relative Humidity

- Relative humidity (RH) is a measure of the amount of moisture in the air relative to the maximum amount of moisture the air could hold at a given temperature.

- It is expressed as a percentage and is calculated by dividing the amount of water vapor present in the air by the maximum amount of water vapor the air could hold at that temperature, and then multiplying the result by 100.
- It is greater over the oceans and least over the continents.
- The relative humidity determines the amount and rate of evaporation and hence it is an important climatic factor.

Why does relative humidity matter?

- Health:** It is an important concept because it affects our body's ability to cool itself through sweat evaporation.
- Higher relative humidity makes it harder for sweat to evaporate, leading to reduced cooling effect and potential heat-related health risks.
- As a result, if the relative humidity is high, you might sweat even when sitting motionless on a hot day, while your body continues to accumulate heat. This can rapidly become hazardous.
- A relative humidity of 30-60% is often regarded as pleasant. Humidifiers are commonly used to boost humidity in environments with lower levels than this.
- Understanding relative humidity is **important for managing our comfort and safety in different weather conditions**.
- Staying hydrated** by drinking water is also important in both high and low relative humidity conditions to maintain proper body function.

What is meant by Wet Bulb Temperature (WBT)?

- The wet bulb temperature is a measure of how much moisture is in the air, with higher humidity resulting in a lower wet bulb temperature.
- A wet bulb temperature is the lowest measurement of air temperature that results from evaporative cooling, and it can be thought of as the temperature that wet skin feels when exposed to moving air.
- In general, a **psychrometer or mercury glass bulb thermometer** is used for measuring the wet bulb temperature of a location.
- Wet bulb temperature can be measured by using a thermometer with a bulb wrapped in wet muslin.
- The temperature of adiabatic saturation is the Wet Bulb temperature. This is the temperature measured with a moistened thermometer bulb exposed to airflow.
- An adiabatic process is one in which the system does neither gain nor lose heat.

Significance of wet bulb temperature

- Understanding the interplay between temperature and humidity, and considering wet bulb temperature, is **crucial for assessing the risk of extreme heat events to human health**.
- Wet bulb temperature provides a more comprehensive and accurate measure of the cooling potential of the air, as it takes into account the combined effect of temperature and humidity on the body's ability to cool down through evaporation.
- Wet bulb temperature combines heat and humidity to indicate how much evaporation can be absorbed into the air. It measures the lowest temperature that our bodies can reach when we are in hotter environments.
- Wet bulb temperature, especially in times of a heat wave, tells us how habitable a place is for the human body.

What is a Heatwave?

- Heatwave is an atmospheric temperature situation that becomes deadly when exposed to the human body.
- Heatwaves often occur in India between March and June, some of which seldom last until July.
- A heatwave happens during the summer season in the North-Western and South-Central areas of India, when temperatures are excessively high, exceeding the typical maximum temperature.
- To be designated as a heatwave, temperatures in the plains must reach at least 40°C and in hilly regions must reach at least 30°C, with an increase of at least 5°C-6°C over the usual temperature.

What is the criteria for declaring a heatwave?

The Indian Meteorological Department (IMD) has established the following criteria for Heat Waves:

- Heat Wave should not be considered until the highest temperature of a station reaches at least **40°C for plains and at least 30°C for hilly regions**.
- When a station's usual maximum temperature is less than or equal to 40°C, heat wave departure from normal is 5°C to 6°C. The deviation from normal to a severe heat wave is 7°C or higher.
- When a station's usual maximum temperature exceeds 40°C, the temperature difference between normal and the heat wave is 4°C to 5°C. The deviation from normal in a severe heat wave is 6°C or greater.
- When the actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, a heat wave is declared.
- Higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally due to climate change.
- India too is feeling the impact of climate change in terms of increased instances of heat waves which are more intense in nature with each passing year, and have a devastating impact on human health thereby increasing the number of heat wave casualties.

Role in making buildings and cities heatwave resilient

- **Cooling Techniques:** One way to make buildings more heatwave resilient is through passive cooling techniques that use natural ventilation, shading, and reflective surfaces to reduce indoor temperatures.
- Understanding the principles of psychrometric charts and wet-bulb temperature can help in designing these techniques by identifying the most effective cooling strategies for a given climate.
- **Urban Planning:** Cities can also be made more heatwave resilient through urban planning and design. This can include increasing green spaces and tree cover, creating cool roofs and pavements, and improving urban ventilation through the layout of buildings and streets.
- An understanding of the principles of relative humidity, psychrometric charts, and wet-bulb temperature can inform these strategies and help to optimize their effectiveness.
- **Community Education:** In addition to these physical measures, community education and outreach are also important in building heatwave resilience.
- This can include providing information on heatwave risks, advising on appropriate behaviors during heatwaves, and facilitating access to cool spaces and resources for vulnerable populations.

GENERAL STUDIES 2

Indian Constitution, historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

Babasaheb's Warning: In Politics, Bhakti Or Hero-Worship Is A Sure Road To Dictatorship

Priority: **Medium**



Primary Source: Indian Express

Prepp Prelims Booster: Modern Indian history

Prepp Mains Booster: Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues, GS2 -Indian Constitution—historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

Context:

- In this article, Author, Dushyant Dave, Senior Advocate at the Supreme Court of India has discussed the ideas of Dr B.R.Ambedkar and his contributions & recommendations for Indian Constitution in the article

titled “Babasaheb’s Warning: In Politics, Bhakti Or Hero-Worship Is A Sure Road To Dictatorship” published in the Indian Express on 14th April 2023.

- Ambedkar had cautioned against hero-worship in politics, which he saw as a threat to democracy and suggested steps to preserve it and evolve a social democracy as its base.



Who was Dr Ambedkar?

- Dr Bhimrao Ramji Ambedkar, who was fondly known as **Babasaheb**, was a scholar, politician and economist.
- He was the **Chair of the Drafting Committee of the Indian Constitution** and is credited as the Father or Chief Architect of the Constitution of India.
- He was an active campaigner against untouchability and advocated for the rights of temple entry and the use of common water.
- He was one of the advocates for a separate electorate for the depressed classes. He later compromised with Gandhi to give the depressed classes reserved seats within the general electorate through the **Poona Pact**.
- Ambedkar was the **Minister for Labour in the Viceroy’s Executive Council**(1942-46) and later became the **first Law Minister of independent India**.
- He served as a member of the Rajya Sabha from 1952 till his death.
- Ambedkar was the founder of the **Independent Labour Party** and the **Republican Party of India**(after dismissing the Scheduled Classes Federation).
- **Mooknayak, Bahishkrit Bharat and Equality Janta** were the magazines started by Ambedkar.

On Unity

- In the Constituent Assembly, Ambedkar constantly advocated for the rights of the citizen and recommended remedies to enforce them. According to him, the **right constitutional remedies (Art 32) was the soul of the Constitution**.
- His speeches contained numerous references to the problems faced by India and the problems that it could face in the future.
- In his opening speech to the Constituent Assembly, on Dec 17th, 1946, Ambedkar claimed that the problem the country faced was not the future but in ensuring the **unity of the heterogeneous mass** of people that constituted the nation.
- He suggested that slogans and divisive actions be left aside and concessions made so that even those that believed in opposing ideologies joined together on the road to a united future.
- Ambedkar quoted the English philosopher and statesman **Edmund Burke** who said “First sir, permit me to observe that use of force alone is but temporary. It may subdue for a moment; but it does not remove the necessity of subduing again; and a nation is not governed which is perpetually to be conquered.”
- He explained that Burke’s advice could not be ignored and that the use of force to solve the Hindu-Muslim conflict was equal to a war against the Muslim community which would lead to their subjugation and the constitution prepared without their consent. Such a scenario would lead

to a perpetual war for the subjugation of the community and their rebellion against the tyranny of the subjugators.

On Discipline

- The drafting of the Constitution was a long process, taking 2 years, 11 months, and 17 days to be completed.
- The draft Constitution was introduced by Ambedkar on 25th November 1949 as a bill to amend the Government of India Act, of 1935.
- Ambedkar described the draft as a democratic constitution but stated that the **successful working of democratic institutions depended on the ability of those who manned them to be able to compromise, accommodate and respect the views of others.**
- Ambedkar also warned future generations of Indians that regardless of how good a constitution was, it would turn bad if those that worked on them were bad and that it was not possible to predict how Indian parties and people would behave in the future.
- According to Ambedkar, the discipline of the Congress Party was the major reason that the Draft Committee was able to present the Constitution with a clear knowledge of how each article and amendment would be received.

On Democracy

- Ambedkar expressed concern that India could lose its newborn democratic nature and be replaced by a dictatorship.
- He made three major suggestions to ensure the preservation of democracy.
- The people were advised to **hold fast to constitutional methods** in pursuing social and economic objectives and **abandon the violent and bloody methods of revolution.** Non-constitutional methods such as satyagraha, civil disobedience and non-cooperation should be abandoned. However, he also stated there was a great deal of justification for non-constitutional methods when the constitutional methods were not successful.
- He also recommended that people follow the warnings of John Stuart Mill and **not surrender their liberties to great men, or trust them with powers which permit them to subvert institutions.** Bhakti or hero worship was an integral part of Indian politics and could lead to dictatorship and degradation of politics unlike in religion, where bhakti led to the salvation of the soul.
- Ambedkar also advised the people to not remain content with mere political democracy and to **pursue social and economic democracy.** In his opinion, Political democracy could not be successfully implemented without social and economic democracy at its base.

On Social democracy

- Ambedkar viewed **social democracy as a way of life that recognised liberty, equality and fraternity as a trinity of inseparable principles of life.**
- In Ambedkar's opinion, the principle of one man and one value which emphasized the idea of equality could not be denied in the social and economic life of the citizens
- Ambedkar warned that the continued denial of equality in social and economic life would ultimately lead to the collapse of political democracy.
- Fraternity, according to Ambedkar, was a principle that gave unity and solidarity to social life. It referred to a spirit of common brotherhood among all people of the country.
- He believed that fraternity was difficult to achieve because of the prevalence of castes in the country.
- **Ambedkar viewed castes as anti-national and leading to separation, jealousy and antipathy** among the various constituents of the society.

Conclusion

- Ambedkar has stated that Independence has granted great responsibilities to Indian citizens and that the principle of Government of the people, for the people, and by the people was essential to preserve the constitution.

- He said that serving the people was possible by recognising the evils that existed in society which weakened people's commitment to democracy and forced people to prefer government for the people over government by the people.

Right to Constitutional remedies

- The **Right to constitutional remedies** was meant to provide effective and guaranteed protection from the violation of fundamental rights.
- **Art 32 guarantees this right in the Supreme Court while Art 226 guarantees this right in the High Courts.**
- According to Art 32, the Supreme Court is the protector and guardian of the fundamental rights of the citizens.
- The Constitution has mentioned writs as a remedial measure to help citizens protect their fundamental rights.
- Writs provided by the Constitution:
 - **Habeas Corpus:** It means "Let us have the body" and is a written order to the authorities to produce a detainee.
 - **Mandamus:** It means "We command" and is issued to a public authority to perform their official duty.
 - **Prohibition:** It is issued by a higher court to lower courts to prevent it from usurping the jurisdiction it did not possess or exceeding its proceedings.
 - **Certiorari:** It is issued by a higher court to a lower court to quash its orders or transfer proceedings to the higher court.
 - **Quo Warranto:** It is issued by the court to inquire into the legality of a person's claim to public office.
- **The Supreme Court has original writ jurisdiction but not exclusive jurisdiction** as it is concurrent with the High Court's authority under Art 226 of the Constitution.

To know more, click the [link](#).

Supreme Court Says Critical Views On Government Policies Not Anti-Establishment

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

Prepp Mains Booster: Indian Constitution—significant provisions and basic structure.

Context:

- Recently, the Supreme Court bench led by Chief Justice of India D.Y. Chandrachud criticized the government for banning a Malayalam channel by labeling them as "anti-establishment" and for the government's "unguided and ad hoc" use of sealed covers in courts to subvert citizens' rights to personal liberty, life, and profession.
- The court said that criticism of government policy does not constitute a "reasonable restriction" under Article 19(2) of the Constitution and emphasized that an **independent Press** is vital for the **robust functioning of the democratic republic.**



What did the court say?

- The court said that the **Press has a duty to speak truth to power and present citizens with hard facts.**
- The court further stated that a **homogenized view** on issues ranging from socio-economic polity to political ideologies will **endanger democracy.**
- The Chief Justice of India acknowledged that the Supreme Court has the authority to protect **confidential material by placing it in a sealed cover according to Rule 7 of the Supreme Court Rules of 2013.**
- However, the CJI also observed that the **state's frequent use of sealed covers** to justify its actions in court has resulted in a reduction of constitutional rights and procedural guarantees of a fair hearing under the law.

What is Public Interest Immunity (PII)?

- In response to state pleas for confidentiality, the Supreme Court developed the "less restrictive" public interest immunity (PII) claims processes as a **"alternative" to the sealed cover hearings.**
- Under the alternative PII proceedings, the court **would assess the material that the state wants** to keep confidential because it is in the "public interest."
- In order to "balance the concerns of confidentiality with the need to retain public confidence in the objectivity of the justice delivery system," the **court would appoint an amicus curiae.**
- The amicus would have access to information that the state wants to keep private and would speak for the interests of the citizen arguing for the material's disclosure.
- Although the PII proceedings are conducted in a closed sitting, a reasoned order that either grants or dismisses the state's PII claim must be announced in open court.
- If the PII claim is granted, the court may choose to redact (edit or remove) confidential portions of the document or provide both parties with a summary of its contents. The redacted portions may be retained by the court.
- According to the Chief Justice, Chandrachud PII is less restrictive because the PII standard of review is used by the courts which is absent in sealed cover proceedings.
- While PII claims proceedings conceivably impact the principles of natural justice, sealed cover proceedings infringe the principles of natural justice and open justice.

Intelligence Reports' Impact

- The Chief Justice expressed skepticism regarding the government's position that it could **collect intelligence or conduct investigations** on citizens and then claim **complete immunity from disclosure in court.**
- The CJI said that the reports generated by intelligence agencies have significant impacts on individuals' and entities' lives, liberty, and profession.
- Granting complete immunity from disclosure to such reports goes against the **principles of transparency and accountability**, which are essential to a fair justice system.
- Intelligence reports are **not just fact-finding documents**, as they often contain observations and inferences about the behavior of individuals that are used by decision-making authorities.
- While it may be reasonable to argue that some intelligence reports contain confidential information, the idea that all such reports should be considered confidential is misguided and inconsistent with constitutional values, as per the Chief Justice's observations.
- **On National Security:** The court **criticized the government for frequently using National Security as a cover** to deny legal rights to the citizen
- The court said that it was not sufficient to merely claim national security; there **must be material evidence to support such an inference.**

Court's Judgement

- According to Chief Justice Chandrachud, the government's decision to ban MBL's Media One channel was based on inferences made in an

Intelligence Bureau (IB) report that alleged links between MBL and Jamaat-e-Islami (JEI-H), an organization that was cleared of terror links in 1994 by the apex court and

- The report cited the media house's alleged **"anti-establishment stance"** for airing critical views about the **Unlawful Activities Prevention Act, Armed Forces Special Powers Act, Citizenship Amendment Act, National Register of Citizens**, the state's soft attitude to Hindus involved in the destruction of Babri Masjid and the "portrayal of security forces and judiciary in a bad light".
- The court said that the IB's "inferences" were drawn from information already available in the public domain and there was nothing secretive to attract the ground of confidentiality.
- The court further said that the allegation of terror links against MBL was fallacious and the denial of security clearance by the Broadcasting Ministry to Media One channel was unreasonable.
- The court ordered the government to renew telecast permission for the channel within four weeks

Article 19(1) provides that all citizens shall have the right-

- To freedom of speech and expression;
- To assemble peaceably and without arms;
- To form associations or unions;
- To move freely throughout the territory of India;
- To reside and settle in any part of the territory of India;
- Omitted by 44th Amendment Act. (it was right to acquire, hold and dispose of property)
- To practice any profession or to carry on any occupation, trade or business.

Restriction on Freedom of Speech and Expression

- Freedom of speech and expression is not absolute. Article 19(2) imposes restrictions on the right to freedom of speech and expression.
- The reasons for such restrictions are in the interests of:
 - Security
 - Sovereignty and integrity of the country
 - Friendly relations with foreign countries
 - Public order
 - Decency or morality
 - Hate speech
 - Defamation
 - Contempt of court

Right To Marry Is Not Absolute, Laws Regulate Marriage, Government Tells Supreme Court

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Same sex Marriage

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation; Mechanisms, laws, institutions, and Bodies are constituted for the protection and betterment of these vulnerable sections. GS 1 - Indian Society

Context:

- Recently, the Centre argued in the Supreme Court that the right to marry is not an **"absolute right"** and petitioners cannot compel the state to grant legal status to same-sex marriage through a judicial declaration.

Government stance

- **Right to marry is not absolute:** In the Supreme Court, the Centre argued that the right to marry is not absolute and that same-sex marriage cannot be granted legal status through a judicial declaration.
- **Regulated by various laws:** The Government said that marriage is regulated by various laws governing various aspects such as age restrictions, restrictions on bigamy, and grounds for separation and divorce.

- **Complexity:** Judicial declaration recognizing same-sex marriage would not be sufficient as such a declaration would have far too many, different, and complicated consequences for the court to handle.
- **Need for parliamentary debate:** The legal recognition of same-sex marriage by making the **Special Marriage Act gender-neutral** should ideally be debated in the Parliament, and not in the court., where national views and expert opinions can be taken into account and the government said that the **court should not become a "super-legislature"**.
- **Unidentifiable class:** The meaning of the '+' encompassed in the 'LGBTQIA+' community is unknown. There are 72 shades or spectrums or variations. There is a 'Null gender' and 'fluid gender' it would be a massive exercise even for the Parliament, let alone for a judgment.
- **Institution of marriage:** the social institution of marriage was **shaped by world religions**. All religions converge and do not contradict, in their opinion that marriage is at the heart of the foundation of family and society. They believe that children from the marriage are sacred gifts of the marriage and marriage is recognised as a heterosexual union

Need marriage equality

- Excluding LGBTQ+ persons from marriage exclude them from the full benefits of participating in family and community life. It excludes them from being accepted in society.
- **Tangible and intangible benefits:** The opportunity to open joint bank accounts, jointly purchase or rent property, jointly own and share financial assets, recognition as a relative under the Indian Income Tax Act, access to a spouse's health and life insurance, and the potential to inherit a spouse's assets in the event of one partner's death are all tangible benefits.
- Gaining acceptance, admiration, and affection from society as well as being able to actively engage in all family activities are intangible advantages. Marriage equality strengthens and promotes family unity.

Conclusion

Recognising same-sex marriages will enable a sense of belonging and will help to gain the acceptance the LGBTQIA+ community is seeking in society.

Parliament- structure, functioning, the conduct of business

None Too Soon: On Governor's And The Judiciary's Reminder On Bills

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Governor

Prepp Mains Booster: Parliament and State legislatures—structure, functioning, the conduct of business, powers & privileges and issues arising out of these; Appointment to various Constitutional posts, powers, functions

Context:

- Recently, the Supreme Court in response to a petition filed by the Government of Telangana said that Governors should **return Bills they do not agree to "as soon as possible"** and not sit over them, making State Legislative Assemblies wait indefinitely. The State of Telangana had complained about Governor Tamilisai Soundararajan's delay on a number of bills.
- The Court emphasized the phrase "as soon as possible" in the first provision of **Article 200**, which implies urgency in returning a Bill.
- The Court stated that it would be unconstitutional for Governors **to delay indefinitely in returning Bills** without informing the House.

What is Article 200?

- According to article 200, when the Assembly of a state or both Houses in a state with a bicameral legislature pass a bill, it shall be **presented to the Governor**.
- The Governor was then required **to consider the bill and declare that he assented to it, withheld assent or had reserved it** for the consideration of the President.

- Article 200 also states that the Governor **must as soon as possible return the bill if it is not a money bill**, with a note requesting the House/Houses to reconsider the bill or certain provisions, or add amendments suggested by the Governor.
- If such a returned bill is reconsidered by the House and passed, with or without amendment, the Governor **shall not withhold his assent when it is forwarded to him**.
- Article 200 has also empowered the Governor to reserve any bill for the consideration of the President which in the Governor's opinion could derogate from the powers of the High Court or endanger the Court's constitutional position.
- There are **three clear problems** associated with Article 200, which deals with assent to Bills:
 - the **absence of a time limit** for acting on Bills,
 - the **scope for reserving a Bill** for the President's consideration against the express advice of the Cabinet and
 - the claim that the Governor **can kill any Bill by declining assent**.

Other issues

- **Discretionary powers:** In many parliamentary democracies, granting assent is considered to be a mere formality. However, in India, the discretionary powers vested in Governors have created a lot of controversy with regard to granting assent to bills.
- The Governor's power to withhold assent or return a Bill, with a message, for **reconsideration is seen as discretionary**.
- In the Constituent Assembly, it was explicitly clarified that returning a Bill was to be done only **on advice** and that it was an enabling provision for a government to **recall a pending Bill in case it had second thoughts** on its advisability.
- The problem lies in **Article 163** because it creates a safeguard for the Governors to function on the **'aid and advice' of the Cabinet, while also prohibiting any inquiry** into whether a particular matter fell within their discretion or not.
 - Article 163 of the Constitution of India, mandates that there shall be a council of Ministers with the Chief Minister at the head to aid and advise the Governor in the exercise of his functions, (with a few exceptions in certain cases).
- This provision can lead to conflicts between the government and governor.

Way forward

Therefore articles 163 and 200 need to be amended either by amending the Constitution or through an appropriate Supreme Court verdict, so that misuse of the governor's discretion can be kept in check.

Discretionary Powers Of Governor

- The Constitution makes it clear that if there is any doubt about whether a matter is within the governor's discretion or not, the governor's decision is final, and the validity of anything he does cannot be called into question on the basis that he ought or ought not to have acted in his discretion.

The governor has two categories of discretion:

- Constitutional Discretion (express discretion mentioned in the Constitution)
- Situational Discretion (hidden discretion derived from the exigencies of a prevailing political situation)

Constitutional Discretion

- Reservation of a bill for the President's consideration.
- Recommendation for implementing President's Rule in the state.
- While performing his duties as the administrator of a neighboring union territory (in case of an additional charge).
- Determining the amount payable to an autonomous Tribal District Council as royalty from mineral exploration licenses by the governments of Assam, Meghalaya, Tripura, and Mizoram.
- Seeking information from the chief minister about state administrative and legislative matters.

Situational Discretion

- Appointment of a chief minister when no party has a clear majority in the state legislative assembly or when the current chief minister dies unexpectedly and there is no obvious successor.
- Dismissal of the council of ministers when it is unable to demonstrate the confidence of the state legislative assembly.
- Dismissal of state legislative assembly when the council of ministers lose their majority.
- Furthermore, the governor is charged with specific duties that must be carried out in accordance with the President's directives. In this regard, the governor, while required to consult the council of ministers led by the chief minister, acts at his discretion. These are:
 - **Maharashtra** – Formation of separate development boards for Vidarbha and Marathwada.
 - **Gujarat** – Formation of separate development boards for Saurashtra and Kutch.
 - **Nagaland**–In terms of law and order in the state, as long as the internal conflict in the Naga Hills-Tuensang Area persists.
 - **Assam**–With regards to tribal area administration.
 - **Manipur**–In relation to the administration of the state's hill areas.
 - **Sikkim**–For peace and the social and economic advancement of all sections of the population.
 - **Arunachal Pradesh**–In terms of the state slaw and order.
 - **Karnataka** - Creation of a separate development board for the Hyderabad-Karnataka region.

The Role Of Parliamentary Committees



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Parliamentary Committee

Prepp Mains Booster: Parliament- structure, functioning, the conduct of business

Context:

- This article is written by Kashvi Verma, Amrit Mahapatra former LAMP (Legislative Assistant to Member of Parliament) fellows of the 2022-23 batch.
- In this article, they discussed the importance of parliamentary committees.



The former President of the U.S. Woodrow Wilson- 'It is not far from the truth to say that Congress in session is Congress on public exhibition, whilst Congress in Committee rooms is Congress at work.'

What is a parliamentary committee?

- A parliamentary committee is appointed or elected by the house or nominated by the Speaker or Chairman. It works under the direction of the speaker or chairman. Presents its report to the house or to the speaker or chairman.

- Parliamentary Committees have their origins in the British Parliament.
- They draw their authority from Article 105, which deals with the privileges of MPs, and Article 118, which gives Parliament authority to make rules to regulate its procedure and conduct of business.

Parliamentary committees are broadly two types -

- **Standing committees:** The Standing committees are permanent, constituted every year or periodically, and work on a continuous basis.
- **Ad hoc committees:** The Ad hoc committees are temporary and cease to exist on completion of the task assigned to them.

Evolution

- A structured committee system was only established in 1993, however, individual committees were being formed for various reasons as far back as independence. Some of them are:
 - **The Ad Hoc Committee on the Citizenship Clause**- was formed to discuss the nature and scope of Indian citizenship.
 - **Northeast Frontier (Assam) Tribal and Excluded Areas Sub-Committee (July 28, 1947):** It was chaired by Sh. G.N. Bordoloi covered the Naga, Khasi, Garo, Jaintia, and Mikir Hills and collected a reservoir of people's lived experiences and demands, beliefs, and customs.
 - It looked at the status of land and forests, local government and courts, finance and taxation, making its report invaluable for determining the status quo of the region and bestowing rights/privileges accordingly.
 - **Excluded and Partially Excluded Areas (Other than Assam) Sub-Committee (August 18, 1947):** It was characterized by Sh. Jaipal Singh Munda's Minute of Dissent with regard to scheduled areas in the Chhota Nagpur Plateau.
 - **Expert Committee on Financial Provisions of the Union Constitution (December 5, 1947):** It was responsible for giving recommendations on Union and Province (State) tax collection, central excise duty, liquor revenue, divisible pool of income tax, sharing of proceeds among provinces, residuary powers, and the institutions of the Finance Commission and the Auditor General, among other things.
 - **Advisory Committee on the Subject of Political Safeguards for Minorities (May 11, 1949):** chaired by Sardar Patel, looked at the abolition of reservations for religious minorities.
- Both the Lok Sabha and the Rajya Sabha have their own Standing (permanent) Committees and Ad Hoc (need-based) Committees. There are also Joint Committees with representation from both Houses.

Role of parliamentary committees

- **Analysis:** Committees examine specific pieces of legislation, analyze the impact of their on governance indicators, and then make their recommendations.
- The government is required to table an 'Action Taken' report for the House to judge the progress made on the suggestions of the committee.
- **Accountability:** Despite the fact that committee reports are **not binding on the government**, it helps the legislature ensure oversight on the executive.
- For example, during the recently concluded Budget Session, reports tabled on the Demand for Grants highlighted **certain inconsistencies** on the part of the government.
- The Committee on Rural Development & Panchayati Raj in its report noted that the **revised estimates always fell short of the budget estimates**.
- **Impartiality:** Objective assessments like these can only be achieved in the **impartial environment of a committee room**, where **partisan differences are set aside** to reach a consensus.
- In contrast, debates on the floor of the House are subjected to intense media scrutiny, pushing parliamentarians to follow their party-lines and cater to their voter-base.
- The **Business Advisory Committee is responsible** for creating the schedule for both Houses of Parliament during sessions and also there is a committee dedicated to papers laid on the table of the House.

- **Scrutiny:** Each paper before being presented in Parliament undergoes a rigorous process of deliberation, writing, and screening.
- This shows that parliamentary committees play an important role in law-making progress in the parliament.
- **Important legislation:** Committees played an important role in shaping legislation regarding the Digital Data Protection Bill, the Justice Srikrishna Committee was established in 2017 in response to the Puttaswamy decision, which recognized the right to privacy as a fundamental right, and was given the responsibility of developing India's data protection framework.
- The Prohibition of Child Marriage (Amendment) Bill that seeks to raise the legal marriageable age of women to 21, the Anti-Maritime Piracy Bill that brings into enactment the **UN Convention on the Law of the Sea** for combating piracy in the high seas, the Jan Vishwas Bill that amends 42 laws across sectors like agriculture and media, the Wildlife Protection (Amendment) Bill that extends the scope of protected species, the Competition (Amendment) Bill, the Electricity (Amendment) Bill, the Criminal Procedure (Identification) Bill, and the Multi-State Cooperative Societies (Amendment) Bill have all been referred to Committees.
- **Nation-building:** The committee plays an important role in the issues that have no political significance for the example of defense shipyards.
- For example, in 2015 the Public Accounts Committee highlighted several concerns plaguing defense shipyards

Present status:

- During the course of the 17th Lok Sabha, just 14 Bills have been referred for further examination till now.
- According to PRS, only 25% of the Bills introduced were referred to committees in the 16th Lok Sabha, as compared to 71% and 60% in the 15th and 14th Lok Sabha respectively.
- This shows a declining trend of national legislation being subjected to expert scrutiny.

Way forward

- In the US, committees are very important, and after introduction, bills are sent to them for review. It allows changes to be made and the modified Bill to go for voting.
- The Parliament should think about mandating a referral to the appropriate committees for all bills laid out on the floor. Giving them additional authority will enable them to **ensure that the executive is held accountable**.
- It is essential for the parliamentary ecosystem in India to institutionalize such procedures and **not allow political considerations to hasten law-making**.

Structure, Organization And Functioning of the Executive And the Judiciary

Judicial Glass Ceiling: More Women Judges At Districts Courts Than HCs

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Indian polity

Prepp Mains Booster: Structure, organization and functioning of the Judiciary

Context:

- Recently, the India Justice Report 2022 has revealed that the proportion of women judges is higher at the District Court level than at the High Courts.
- The report also revealed that no state or union territory has achieved its Scheduled Castes, Scheduled Tribes and Other Backwards Castes quotas at the district court level.

What has the India Justice Report 2022 revealed?

On Women

- The India Justice Report 2022 has revealed that the number of women judges in district courts was much higher than in the High Courts.
- According to the Report, **35% of judges at the District Court level and 13% at the High Court level were women**.
- The distribution of women in the judiciary varied across the states with **Goa (70%)** having the highest percentage of women judges in subordinate courts followed by **Meghalaya and Nagaland with 63% each**.
- The report stated that the number of women judges in subordinate courts was increasing but the share of women judges in the High Courts remained low.
- The representation of women in the judiciary of the High Courts increased by less than 2% between 2020 and 2022.
- The High Court of Sikkim, with a sanctioned strength of three judges, had the highest national average of women judges at 33.3% while the proportion of women in the Telangana High Court had increased from 7.1% to 23.7% in the same period.
- The percentage of women has dropped in a few of the High Courts. The highest drop in women judges was in Andhra Pradesh where it fell from 19% to 6.7% followed by the Chhattisgarh High Court where it fell from 14.3 to 7.1%.
- The High Courts of Bihar, Tripura, Manipur, Meghalaya, and Uttarakhand had no women judges as per the IJR.
- Rajasthan and Uttar Pradesh were also reported to have a low proportion of women in legal aid.

Reservation for Women in Judiciary

- Some States have instituted a reservation policy for women in the lower courts.
- Assam, Andhra Pradesh, Telangana, Odisha and Rajasthan are some of the states which had enacted reservation policies and now have women as 40-50% of their judicial officers.
- However, such policies were missing in the Supreme Court and the High Courts

On Caste diversity

- The Report revealed that **no district court had met its quota requirements in the Scheduled Castes, Scheduled Tribes and Other Backward Classes categories** despite caste-based reservations varying on a state-state basis.
- The Report which was published using the latest government said that no data was available on caste diversity in the High Courts.
- A Report prepared by the **Department of Justice for the Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice** stated that between 2018 and December 2022, 537 judges were appointed to the High Courts, of whom 1.3% were Scheduled Tribes, 2.8% were Scheduled Castes, and 11% were from the Other Backward Classes and 2.6% were from minority communities.
- The Report discovered that only nine states and Union Territories had achieved their quotas with Tamil Nadu which had the second highest reservations in the OBC category (50%) fulfilling its obligations.
- The Report also stated that Chhattisgarh had fulfilled its quotas for Scheduled Castes and Other Backward Classes while Telangana had fully met its quota for Scheduled Tribes and Other Backward Classes.
- Ladakh, Manipur, Chhattisgarh, and Gujarat had also exceeded their Scheduled Castes quota obligations.
- In West Bengal, 100% of the vacancies for SCs, STs and OBCs have remained unfulfilled while Jharkhand, Gujarat, Goa and Odisha also had a large number of unfulfilled vacancies in some or all of the above categories.

India Justice Report

- The India Justice Report was prepared by the Tata Trusts in collaboration with the Center for Social Justice, Common Cause, DAKSH, Vidhi Centre for Legal Policy, and the Commonwealth Human Rights Initiative.

- The Report ranks individual states on their capacity to deliver access to justice.
- The ranking is based on the quantitative measurement of budgets, human resources, infrastructure, workload, and diversity across police, judiciary, prisons and legal aid.
- The Report has been published annually since 2019 with the third edition in 2022 focussing on comparisons between the structural and financial capacity of the states to deliver justice using the latest available government data.

India Justice Report 2022 | Judge Vacancies Remain Endemic



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: India Justice Report

Prepp Mains Booster: Structure, organization and functioning of the Judiciary

Context:

- Recently, the India Justice Report 2022 reported that Indian courts were experiencing an increase in case pendency while functioning with less than the sanctioned number of judges.
- According to the report, the High Courts had a higher case clearance rate than the subordinate courts.

What is the India Justice Report?

- The India Justice Report was prepared by the Tata Trusts along with the Center for Social Justice, Common Cause, DAKSH, Vidhi Centre for Legal Policy, and the Commonwealth Human Rights Initiative.
- Individual states are ranked on their capacity to deliver access to justice for their citizens.
- The ranking is based on the quantitative measurement of budgets, human resources, infrastructure, workload, and diversity across sectors such as police, judiciary, prisons and legal aid.
- The Report has been published annually since 2019 with the third edition in 2022 focussing on comparisons between the structural and financial capacity of the states to deliver justice using the latest available government data.



What were the findings of the Report?

On Judicial Vacancies

- According to the Report, the number of pending cases in Indian Courts was increasing while the number of functioning judges was less than the sanctioned number.
- The High Courts were functioning with a strength of 778 judges against the total sanctioned strength of 1,108 while the subordinate courts were functioning with 19,288 judges against a sanctioned strength of 24,631 judges.

On Pendency

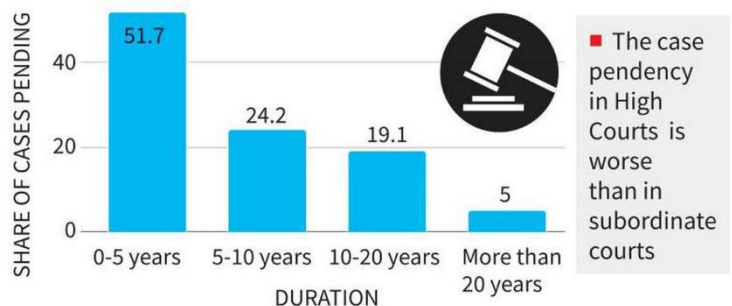
- The Report has revealed that the number of cases pending per judge has been rising over the last five years while the total sanctioned strength of judges had remained the same.
- The Allahabad High Court had the highest case pendency among the High Courts in the country with an average of 11.34 years followed by the High Court of West Bengal with 9.9 years.
- The lowest average case pendency among the High Courts was in Tripura with 1 year followed by Sikkim and Meghalaya with 1.9 years and 2.1 years respectively.

On Caseload

- The Report has highlighted that the number of cases per judge had increased significantly between 2018 and 2022 in 22 States and Union Territories.
- A common metric used to measure the rate of disposal of cases was the **Case Clearance Rate** which measured the number of cases disposed of in a year against the total number of cases filed in the year.
- According to the investigations conducted by the Report, **High Courts were disposing of cases at a faster rate per year than the subordinate courts.**
- The national average of the CCR between 2018-19 and 2022 had increased from 88.5% to 94.6% in the High Courts and dropped from 93% to 89.4% in the subordinate courts.
- Tripura was the only state where the CCR in district courts remained at 100% without considering 2020, due to the pandemic.
- The number of High Courts with a CCR of more than or equal to 100% had increased from 4 in 2018-19 to 12 in 2022.
- The High Courts of Kerala (156%) and Odisha (131%) had the highest case clearance rates while the High Courts of Rajasthan (65%) and Bombay (72%) had the lowest CCRs.

Piling up

The chart shows the share of cases pending in High Courts across various years. The share of cases pending for more than five years, across 25 High Courts in the country was 48.3%.



On Infrastructure

- According to the Report, the number of court halls appeared to be sufficient for the number of judges at present, it could be problematic if all the sanctioned posts in the judiciary were filled.
- In August 2022, there were 21,014 court halls for the 24,631 judges' posts sanctioned, which indicated a shortfall of 14.7%.
- The Report concluded that there were no court halls for the 86, 82, and 35 serving judges respectively in Delhi, West Bengal and Uttarakhand respectively. it added.
- If the strength of judges in all the states equalled the total sanctioned strength, only four states and four UTs would have a sufficient number of court halls while 11 States and UTs would witness a shortfall of 25%.

HC Orders Triple Tests For Couple Facing Legal Hurdles To Have Child Through Surrogacy

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

Prepp Mains Booster: Structure, organization and functioning of the Executive and the Judiciary, Issues relating to development and management of Social Sector/Services relating to Health,

Context:

- Recently, the Karnataka High Court evolved triple tests in order to determine the eligibility of a couple to have a child through surrogacy.
- Surrogacy in India is regulated by the Surrogacy(Regulation) Act, 2021 which is aimed at ensuring the betterment of the child while protecting the rights of the surrogate mother.

What was the case before the High Court?

- The Karnataka High Court was hearing the petition of a 57-year-old man and his 45-year-old wife who had sought to have a child through altruistic surrogacy.
- The **Surrogacy (Regulation) Act 2021** prohibited men above the age of 55 from having a surrogate child.
- The Act also had also stated that only a genetic relative of the couple could be a surrogate mother.
- The petitioners claimed that the wife's sister was willing to donate the eggs as the wife had undergone a **hysterectomy** and could not donate eggs for surrogacy. The husband on the other hand was ineligible to donate sperm to fertilize the donated eggs as part of the **IVF** process as he had crossed 55 years of age.



What are the 'triple tests' developed by the High Court?

- The Karnataka High Court has evolved the **triple-test mechanism** as various legal issues related to the Surrogacy(Regulation) Act, 2021 were being heard by the Supreme Court.
- The Court stated that **genetic test, physical test, and economic test** were the three tests that a petitioner-husband had to pass in order to be eligible to have a surrogate child.
- The Court noted that men experienced a decrease in sperm quality with age, therefore a **genetic test had to be conducted to ensure that the child was not born with any genetic disorders.**
- The Court prescribed a **physical test in order to assess whether the couple had the physical capacity to handle the child** so that the child did not suffer in the future due to their becoming infirm.
- The **economic test was meant to determine if the couple could protect the future interests of the child on the basis of an examination of their assets and liabilities.**
- The High Court issued a directive under the Act directing the relevant authority to review the couple's appeal based on the triple tests and gathering information on the intended surrogate mother within eight weeks.
- The validity of the Act's provisions was not addressed by the High Court because it was still pending before the Supreme Court.

What is altruistic surrogacy?

- The Surrogacy (Regulation) Act has defined **Surrogacy as the practice wherein a woman gives birth to a child for a couple with the intention of handing over the child to them after its birth.**
- **Altruistic Surrogacy** refers to surrogacy arrangements where the surrogates were not provided compensation or only provided reasonable expenses.
- In India, altruistic surrogacy has been defined as the use of relatives as surrogate mothers rather than the exchange of reasonable compensation used in countries such as the UK. The family ties hid the commercial element involved in surrogacy.
- However, the Karnataka High Court has observed that altruistic surrogacy meant surrogacy by an outsider which meant that the genetic relative provision of the Surrogacy Act was against the philosophy behind the Act.
- The Court stated that the provision defeated the altruism and logic behind the Act.

What are the eligibility criteria?

To avail surrogacy

- According to the Surrogacy (Regulation) Act, 2021, a couple intending to have a child via surrogacy would have to produce certificates of essentiality and eligibility.
- **A couple had to have been Indians, married for five years, with the wife aged between 25-50 years and the husband between 26-55 years.**
- The couple **must not have any living child while exemptions have been made for children with mental or physical disabilities, or life-threatening disorders.**
- An essential certificate could be obtained by the couple suffering from proven infertility of either partner certified by a District Medical Board and an order of parentage and custody of the child from the Magistrate's court.
- The couple were also required to have **insurance coverage for 16 months for the surrogate mother which would cover any postpartum complications.**

To be a surrogate

- According to the Act, the surrogate mother would have to be a **close genetic relative of the couple.**
- She should be **between the age of 25 and 35, married and have her own children.**
- However, **a person was eligible to be a surrogate mother only once and must possess a certificate of medical and psychological fitness.**

Who was responsible for regulating surrogacy in India?

- The Act contained provisions for the establishment of **National and State Surrogacy Boards** within 90 days of the passing of the Act.
- The Boards were empowered to enforce standards for surrogacy clinics, investigating violations and recommending changes as necessary.
- The Act has prescribed sentences of up to ten years imprisonment and fines of up to ₹10 lakh for offences such as commercial surrogacy, selling of embryos, exploitation of surrogates, abandonment of a surrogate child etc.

Way Forward

- The Court has stated that it was the duty of the Constitutional Court to iron out the creases in a manner that did not disturb its content.
- The Act was not free from challenges as it excluded some sections of the population including gay couples while the close relatives clause could be misused like it was done in the case of organ donation by "near relatives".
- It was the duty of the legislative and mandated executive authorities to make the required changes to ensure that the benefits could be accessed by deserving candidates.

Register FIRs Against Hate Speech Even In Absence Of Complaints, Supreme Court Directs States



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Hate Speech

Prepp Mains Booster: Structure, organization, and functioning of the Executive and the Judiciary— Ministries and Departments of the Government; Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions, and basic structure

Context:

- Recently, the Supreme Court directed States to suo motu register FIRs on hate speech incidents and proceed against offenders without waiting for someone to lodge a complaint.

What did the court say?

- Applicable across religions:** A Bench of Justices K.M. Joseph and B.V. Nagarathna said the court's order **would apply to all hate-speech makers irrespective of their religion.**
- Uphold Secularism:** The court stressed the **secular nature** of the nation has to be protected.
- Penal provisions:** The court highlighted the specific penal provisions under which hate speech offenders ought to be booked. They are
 - Sections 153A (promoting enmity between different groups on the ground of religion),
 - 153B (imputations, assertions prejudicial to national integration),
 - 505 (public mischief),
 - 295A (deliberate and malicious acts intended to outrage religious feelings) of the Indian Penal Code (IPC).
- Suo motu FIRs:** The Supreme Court ordered that cases must be registered even in the absence of complaints, and the concerned authorities should take suo motu action to do so.
 - First Information Report (FIR) is a written document prepared by the police when they receive information about the commission of a cognizable offence.
- Direction to Police:** The court ordered Director Generals of Police in the States to alert their subordinates of the ruling of the court so that **appropriate action in accordance with the law** would be taken at the earliest.
- According to the court, any hesitation on the part of police officers to follow the order would be considered **contempt.**
 - Contempt of court means it is an act of disrespect or disobedience toward a court, as well as interference with its orderly process.
 - Article 129 declares the supreme court to be a "Court of record," with all the powers of a court of record, including the right to punish itself for contempt.
 - The Contempt of Courts Act of 1971 does not define contempt; rather, it discusses the two categories of contempt: civil and criminal.
- Similar directive in the past:** In October of the previous year, the court issued a similar directive for the immediate filing of FIRs against individuals who incite communal violence through hate speeches.
- The October order was based on petitions that brought attention to instances of hate speeches targeting the Muslim community, such as those that occurred during events held in Delhi and Haridwar in 2021.
- The court stated that the Constitution envisages Bharat as a **secular nation** and fraternity assuring the dignity of the individual and unity and integrity of the country is one of the guiding principles enshrined in the Preamble.



Concerns

- Advocate Kaleeswaram Raj, representing senior journalist Sashi Kumar, however, cautioned that while dealing with hate speech, the freedom of speech should not be completely suppressed.
- He stated that it was important to consider the possibility of limiting free expression and that enacting new, stringent rules or preventative measures would create more problems than they would resolve.
- According to him, there is already enough legal precedent regarding hate speech

What is Hate Speech?

- There is **no specific legal definition of 'hate speech'.**
- According to the 267th Report of the Law Commission of India, hate speech is generally an **incitement to hatred primarily against** a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious belief, and the like.
- Thus, hate speech is any word written or spoken, signs, or visible representations within the hearing or sight of a person with the intention to cause fear or alarm, or incitement to violence.
- In general, hate speech **is considered a limitation on free speech** that seeks to prevent or bar speech that exposes a person or a group or a section of society to hate, violence, ridicule, or indignity.

Judicial Activism

- It's a "Judicial philosophy that encourages judges to deviate from standard precedents in favor of progressive and novel social policies".
- Judges are encouraged to use their powers to redress injustices, particularly when the other arms of government fail to do so.
- In short, the courts should be involved in defining social policy on matters such as civil rights, individual rights protection, political injustice, and public morality.
- There are **no constitutional articles** that support the origins of judicial activism.
- It was created by the Indian judiciary. In the United States of America, a comparable notion exists.
- With the repeal of the Locus Standi concept, Suo Moto cases, and the invention of **Public Interest Litigation (PIL)** have permitted the judiciary to interfere in a wide range of public matters, even when there is no complaint from the affected party.
- Although past examples of judicial activism were linked to the enforcement of fundamental rights, the judiciary has increasingly begun to intervene in governance matters as well.

What are examples of Judicial Activism?

- In the Maneka Gandhi v/s Union of India case, the court recited the term 'procedure established by law' under Article 21 of the Constitution by repositioning it as 'due process of law' which means the procedure which is established by the law must be just, fair and reasonable.
- Reforms in Cricket: Lodha committee

- SIT on Black money

Judicial Overreach

- The distinction between judicial activism and overreach is very narrow.
- Judicial Overreach is what happens when judicial activism oversteps its bounds and becomes judicial adventurism.
- When the court exceeds its jurisdiction, it risks interfering with the legislative and executive branches of government's functions.

Examples of Judicial Overreach

- Imposition of Patriotism in National Anthem Case.
- Ban of Firecrackers
- The 99th constitutional amendment and the NJAC bill

Powers, functions and responsibilities of various Constitutional Bodies, Quasi Judicial Bodies

Election Commission Grants National Party Status To AAP; Withdraws National Tag Of Trinamool Congress, CPI, NCP



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: National Party, State party

Prepp Mains Booster: Powers, functions and responsibilities of various Constitutional Bodies.

Context:

- Recently, the Election Commission of India (ECI) accorded AAP the status of a national party while withdrawing the same for the Trinamool Congress, Communist Party of India, and the Nationalist Congress Party.
- With the removal of NCP, CPI, and TMC, there are now only six national parties in the country – BJP, Congress, National People's Party, CPM, Bahujan Samaj Party, and the latest addition AAP.
- The Karnataka High Court ordered the election commission to make a decision before April 13 on the national party status. The Karnataka polls on May 10 would be the AAP's first election as a "national party".

Criteria for National party status

According to the ECI's Political Parties and Election Symbols, 2019 handbook, a political party would be considered a national party if:

- I. it is 'recognized' in **four or more states**; or
- II. if its candidates **polled at least 6% of total valid votes** in any four or more states in the last Lok Sabha or Assembly elections and has **at least four MPs in the last Lok Sabha polls**; or
- III. if it has won at **least 2% of the total seats in the Lok Sabha** from not less than three states.

Criteria for recognition of a state party

- I. At least **6% vote-share in the last Assembly election** and have at least 2 MLAs; or have 6% vote share in the last Lok Sabha elections from that state and at least one MP from that state; or
 - II. at least **3% of the total number of seats or three seats**, whichever is more, in the last Assembly elections; or
 - II. at least **one MP for every 25 members** or any fraction allotted to the state in the Lok Sabha; or
 - II. have at **least 8% of the total valid votes in the last Assembly election** or Lok Sabha election from the state.
- **Benefits of a recognized party:** A recognized political party enjoys privileges like a reserved party symbol, free broadcast time on state-run television and radio, consultation in the setting of election dates, and giving input in setting electoral rules and regulations.



News Summary

- The AAP got the status of a national party as it secured nearly 13 percent of the vote share and five seats in the Gujarat Assembly polls earlier this year making it the state party in four states—Delhi, Goa, Punjab and Gujarat.
- The TMC, CPI, and NCP, on the other hand, suffered a setback when the election board revoked their national party designation, citing the Election Symbols (Reservation and Allocation) Order 1968.
- According to the Symbols Act's provisions, candidates put up by registered unrecognized political parties at elections are allotted election symbols by the Returning Officers of the constituencies concerned after the last date for withdrawal of candidature as per the availability. Thus the party cannot use a single pole symbol across the country.
- In addition, the NCP lost its recognition as a state party in Goa, Manipur, and Meghalaya, the CPI in West Bengal and Odisha, and the TMC in Arunachal Pradesh and Manipur.
- However, the NCP and Trinamool Congress will be recognized as State parties in Nagaland and Meghalaya respectively based on their electoral performance in the assembly polls
- The Rashtriya Lok Dal in Uttar Pradesh, the Bharat Rashtra Samithi in Andhra Pradesh, the People's Democratic Alliance in Manipur, the Pattali Makkal Katchi in Puducherry, the Revolutionary Socialist Party in West Bengal, and the Mizoram People's Conference in Mizoram all had their state party statuses revoked by the ECI.
- The status of "recognised State political party" was given to the Tipra Motha in Tripura, the Lok Janshakti Party (Ram Vilas) in Nagaland, and the Voice of the People Party in Meghalaya.
- A party may gain or lose national party status from time to time, depending on the fulfillment of the laid-down conditions.

Competition Law Gets More Teeth, Mergers To Win Swifter Nod



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Competition Commission India

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, both houses of Parliament cleared the **Competition (Amendment) Bill, 2023**, paving the way for the government to enact some significant changes to the country's antitrust regime, including swifter clearances for mergers and acquisitions (M&As).



Competition Commission of India

Competition (Amendment) Bill, 2023

- The revised law stipulates that in order for businesses to have their appeals reviewed by an appellate tribunal, they must pay at least 25% of the fines assessed against them by the Competition Commission of India (CCI).
- Definition of turnover amended:** The amendment has expanded the definition of turnover to include "global turnover from all products and services of a contravening firm.
- Mergers and Acquisition:** The Bill reduces the overall time limit for evaluation from 210 days to 150 days from the date of filing of a notice by the concerned parties, making approvals for combinations (M&As) more timely and efficient.
- The CCI must formulate a "**prima facie opinion**" **within 30 days of receiving the notice**; otherwise, the combination will be deemed to have received approval.
- According to experts, certain amendments are business-friendly and consistent with the **government's ease of doing business missions**, while others may raise more uncertainty in their implementation.

What is the Competition Commission of India?

- The Competition Commission of India is a statutory body established in 2009 (within the Ministry of Corporate Affairs) to **enforce the competition law under the Competition Act, of 2002**.

Objectives

- Eliminate practices having adverse effect on competition
- Promote and sustain competition
- Protect the interests of consumers
- Ensure freedom of trade in the markets of India
- The Commission is also required to give opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.
- The Commission consists of a Chairperson and not more **than 6 Members appointed by the Central Government**.

A Reminder About Unfettered Constitutional Posts

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster:

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

Context:

- In this article, written by Anupam Kulshreshtha, who is a former Deputy Comptroller and Auditor General of India and a law professor at the Institute of Management Technology (IMT) in Ghaziabad, Delhi NCR has discussed on the concept of the independence of various constitutional authorities in India.

What is a Constitutional Body?

- Constitutional Bodies** are those organizations that derive their powers from the Constitution of India, hence any amendments or addition to their powers require a constitutional amendment.
- The authority exercised by these entities is derived from the constitution itself, and the constitutional bodies have greater power than any other organization in the country.
- These bodies are part of the government machinery and perform executive tasks to ensure the smooth administration of the government.
- The constitution of India provides for various constitutional authorities such as the Public Service Commission, the Comptroller and Auditor General of India (CAG), the ECI, the Finance Commission, and the National Commissions for Scheduled Castes (SC), Scheduled Tribes (ST), and Backward Classes (BC), etc.

Recent observations of SC

- The recent comments of the Supreme Court of India will have a direct impact on the idea of the independence of several constitutional authorities in India.
- During a hearing in the 'Sena versus Sena' case, the Court voiced "serious concern" over Governors' active engagement in State politics, remarking that Governors being involved in political processes is concerning.
- Previously, the Court took an important step toward ensuring the independence of the Election Commission of India by depriving the executive of sole discretion in appointing the Chief Election Commissioner (CEC) and Election Commissioners (ECs) by forming a committee to suggest suitable names for these constitutional posts.

What is the need for independent institutions in democracy?

- A system of checks and balances is required in a democracy to prevent the elected government of the day from abusing power.
- The Constituent Assembly of India recognized the necessity for such autonomous organizations to govern sectors of national importance without interference from the executive.
- Such constitutional bodies must be granted entire independence in order to act without fear or favor and in the best interests of the nation.
- The Constitution specifies how persons in charge of these institutions are to be nominated in order to provide them independence.
- The capacity to resist pressure from the executive is a necessary feature of independence.
- While empowering the President of India to appoint all constitutional authorities, the Constitution-makers considered those institutions whose independence is critical to the country and how the independence of these authorities could be protected from the whims of the executive.

Appointment of various constitutional posts

- The phrase '**shall be appointed by the President**' appears in the Constitution in the appointment of the Prime Minister (Article 75), Indian Attorney-General (Article 76), Chairman and Members of the Finance Commission (Article 280), Chairman and Members of the Public Service Commission (Article 316), Special Officer for Linguistic Minority (Article 350B).
- Article 324 provides that the President will appoint the Chief Election Commissioner (CEC) and Election Commissioner (EC) '**subject to any law made in that behalf by Parliament**'.
- The words '**shall be appointed by the President by warrant under his hand and seal**' are used to appoint, Supreme Court and High Court Judges (Articles 124 and 217), CAG (Article 148), Governor (Article 155), Chairman and members of the National Commissions for SCs, STs, and BCs (Articles 338, 338A, and 338B).

N. Gopalaswami and Ors vs The Union of India

- The Supreme Court ruled in *N. Gopalaswami and Ors vs The Union of India* that the President functions with the assistance and advice of the Council of Ministers, with the Prime Minister as the head in all subjects vested in the executive.
- However, in circumstances where the nomination of a specific constitutional authority is to be retained independent of the administration, the question arises as to whether such an interpretation would be consistent with the thought that prevailed throughout the relevant Constituent Assembly debates.

A Special Status

- The term "by warrant under his hand and seal" is exclusively used in the Constitution to refer to appointments to offices (Judges, CAG, and Governors) that have a particular status that distinguishes them from other constitutional positions.
- Constitutional authorities such as Supreme Court and High Court judges, as well as the CAG of India, must be free of political and governmental interference.
- While the appointment of judges and ECs has been made free of executive influence, the need to establish well-defined criteria and procedures for the appointment of the CAG of India remains, keeping in mind the intention of the Constitution's framers, as evidenced by the Constituent Assembly debates.

What is the way forward?

- The process of selecting a person to be appointed as the CAG of India should begin by appointing a committee consisting of the Speaker of the Lok Sabha, the Chief Justice of India, and the Chairman of the Public Accounts Committee to shortlist names to be considered for appointment as the CAG of India.
- A panel of three names should be forwarded to the President for him to make the final selection, as stated in Article 148 of the Indian Constitution.

Lokpal Disposed Of 68% Corruption Complaints Against Public Servants Without Any Action: Parliamentary Panel Report



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Lokpal

Prepp Mains Booster: Organization and functioning of Parliament, Statutory, regulatory and various quasi-judicial bodies.

Context:

- According to information provided by the Lokpal's office to a parliamentary panel around 68% corruption complaints against public functionaries that landed with the Lokpal of India were "disposed off" without any action in the past four years.
- The Lokpal is India's **first anti-corruption body** instituted four years ago to investigate **complaints against public functionaries**, including the Prime Minister.



Parliamentary Panel Report

- According to data provided by the Lokpal office to the **parliamentary panel on the Department of Personnel and Training (DoPT)**.
- Out of 8,703 complaints received by Lokpal since 2019-20, 5,981 complaints were disposed of.
- As many as 6,775 complaints were turned down because they weren't in the prescribed format. The office stated that only three complaints had received a thorough investigation, while 36 other complaints were still in the early stages.
- Only 242 of the 2,760 complaints that were received in 2022-2023 were in the prescribed format.
- On January 5, the Lokpal issued an order stating that complaints received by the office of the Lokpal of India that were not submitted in the appropriate formats would not be taken into consideration.
- The Committee inferred from the data provided by Lokpal that a large number of complaints were disposed of on the ground that **the complaint is not in the prescribed format**. Lokpal has submitted to the Committee that it has not prosecuted even a single person accused of graft till date.

10 years of Lokpal

- The first Lokpal, Judge Pinaki Chandra Ghosh, along with eight other members, was appointed on March 19, 2019, even though the Act was passed in 2013.
- Justice Ghosh moved out of office in May 2022 after attaining 70 years of age and since then, Pradip Kumar Mohanty has been acting as the Chairperson of Lokpal.
- The parliamentary panel led by Sushil Kumar Modi, **expressed dissatisfaction with the performance of the Lokpal**, stating that it was established to strengthen legal and institutional mechanisms to combat corruption in public life.
- The panel emphasized that the **Lokpal should act as an enabler rather than an inhibitor**, promoting clean and responsive governance.
- The panel recommended that the Lokpal **not reject genuine complaints solely on the technical grounds** of not being in the prescribed format.
- Additionally, as India heads the G20 Anti Corruption Working Group, the panel urges the Lokpal to take steps to strengthen the anti-corruption landscape in the country.

What is LokPal?

- The Lokpal is the **first institution of its kind in independent India**, established under the Lokpal and Lokayuktas Act 2013 to inquire into and examine charges of **corruption against public officials** who fit within the scope and ambit of the Act.
- Lokpal is a statutory organization with **no constitutional status**.
- It serves as a "ombudsman," probing corruption allegations against individual public officials as well as other pertinent problems.
- **Composition:** The Lokpal panel must have a chairperson and a maximum of eight members, according to the Act. Four of them must be judicial members.
- India's Lokpal is dedicated to addressing citizens' complaints and aspirations for clean governance. It must use all of its powers to promote the public interest within its authority and to remove corruption in public life.
- In cases of alleged corruption, the Lokpal provides a mechanism for swift and unbiased investigation and prosecution.
- There are no limitations on who can file a complaint.

Selection Committee - Lokpal

- The members are appointed by the president on the recommendation of a Selection Committee comprises of:
- The Prime Minister is the Chairperson;
- Speaker of Lok Sabha,
- Leader of Opposition in Lok Sabha,
- Chief Justice of India or a Judge nominated by him/her and One eminent jurist.

- For selecting the chairperson and the members, the selection committee constitutes a selection panel of at least eight persons.

Term of Office of the Members of Lokpal and Lokayukta

- The Lokpal consists of a Chairperson and eight Members out of whom 50% are Judicial Members.
- The Chairperson and the Members hold office for a term of five years from the date on which they enter upon the office or **until they attain the age of 70 years, whichever is earlier.**
- The salary, allowances and other conditions of services of the **Chairperson are the same as that of Chief Justice of India.**
- The salary, allowances and other conditions of services of the Members are the same as that of a Judge of the Supreme Court.

Jurisdiction

- The Lokpal has jurisdiction to inquire into allegations of corruption against anyone who is or has been Prime Minister, or a Minister in the Union government, or a Member of Parliament, as well as officials of the Union Government under Groups A, B, C and D.
- The chairpersons, members, officers and directors of any board, corporation, society, trust or autonomous body either established by an Act of Parliament or wholly or partly funded by the Union or State government are also covered.
- It also covers any society or trust or body that receives foreign contribution above ₹10 lakh (approx. US\$ 14,300/- as of 2019).

Government Policies & Interventions; Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections, Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources

Doctors Must Embrace The Right To Health Bill, Not Protest Against It

Priority: **Medium**



Primary Source: Indian Express

Prepp Prelims Booster: Right to Health

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources

Context:

- The article is based on "Doctors must embrace the Right to Health Bill, not protest against it," which was published in the Indian Express on March 31, 2023 by Shah Alam Khan who is a Professor in the Department of Orthopaedics at the All India Institute of Medical Sciences.

News Summary

- Recently, the Rajasthan Government passed the Right to Health (RTH) bill. As a result, Rajasthan became India's first state to approve the Right to Health (RTH) bill.
- The law provides free access to outpatient and inpatient treatments in all governments and selected private institutions in the state.
- The medical community has been outraged since the law was approved.
- The majority of physicians believe that the RTH bill is an attack on their "business model."

What is Rajasthan's Right to Health Bill?

- The Supreme Court ruled in 1996 that the right to life (Article 21) included the right to health, as well as the duty of state governments to provide health services.
- The State List includes public health and hygiene, including hospitals and pharmacies, according to the Constitution.
- The National Commission on Human Rights developed the Charter of Patient Rights in 2018 for state administrations to execute. Rajasthan has several health-care programs in place.

- The Mukhyamantri Chiranjeevi Swasthya Bima Yojana provides health care in over 1,550 private and public hospitals throughout Rajasthan. Certain kinds of therapy are covered by insurance under the yojana.
- On September 22, 2022, the Rajasthan Right to Health Bill, 2022, was presented in the Rajasthan Assembly. It aims to ensure the preservation and fulfillment of equal health and well-being rights.

Features of the bill

- The Bill guarantees the right to health and access to healthcare for all residents of the province. This involves providing free health care services to citizens of the province at any clinical facility.
- The Bill imposes certain duties on the state government in order to guarantee the right to health and protect public health.
- Health authorities will be established at the state and local levels. These bodies will create, execute, oversee, and improve mechanisms for excellent healthcare and the control of public health emergencies.

Health Status of Rajasthan

- In 2022, the NITI Aayog, World Bank, and Union Ministry of Health and Family Welfare ranked Rajasthan 16th out of 19 major states in a study named "Healthy States, Progressive India."
- According to the National Family Health Survey -5 (2019-21), the newborn mortality rate and neonatal mortality rate in the province are 30.3 per 1,000 live births and 20.2 per 1,000 live births, respectively.
- Such high rates of childhood mortality reflect badly on the state's healthcare system.
- It is one of the regions with the greatest rates of nutritional anaemia among mothers and children.
- The state's doctor-to-population ratio is an incredibly low five physicians per 10,000 population (in comparison, it is 21 per 10,000 population in Jammu and Kashmir).

Reason for the Protest

- The primary grievance of doctors protesting Rajasthan's bill is the clause that states that any citizen of the state will have the right to emergency treatment and care without payment at all hospitals and healthcare facilities.
 - This disrupts the "business model" that most commercial healthcare organizations rely on.
- The physicians are concerned about this provision for two reasons:
 - first, who determines what is a medical emergency, and
 - second, the bureaucracy and political control and arm bending when it comes to admitting or reimbursing money for these patients.

Conclusion

The doctor has close interaction with patients. The practitioner and society are reflected images of each other. If today's physician wants to appear good in the mirror, he or she must also make society look good. The simplest way to make society appear good is to introduce equality and justice, even if it means jeopardizing the physician's ability to generate money.

Maternity Benefits To Adoptive Mothers: What The Law Says, Why It Is Facing A Challenge In SC

Priority: **Medium**



Primary Source: Indian Express

Prepp Prelims Booster: Maternity benefits Act

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

Context:

- Recently, a Supreme Court bench led by Chief Justice of India DY Chandrachud agreed to hear the Public Interest Litigation (PIL), filed by Karnataka-based Hamsaanandini Nanduri, challenging the constitutional validity of Section 5(4) of the Maternity Benefit Act, 1961, which states that a woman who legally adopts a child below three months old will be entitled to 12 weeks of maternity leave.

- It is not the first time this petition is being heard by the top court. On October 21, 2021, a bench of then Justice S Abdul Nazeer along with Justice Krishna Murari sought responses from the Ministry of Law and Justice and the Ministry of Women & Child Development on this plea. They have not yet submitted their responses.

What is Section 5(4) of the Maternity Benefit Act?

- The original Maternity Benefit Act, of 1961 did not have specific provisions for adoptive mothers, these were inserted with the 2017 amendment to the Maternity Benefit Act.
- Section 5(4) of the amended Act states that a woman who legally adopts a child **below the age of three months or a commissioning mother** shall be entitled to maternity benefits for a **period of twelve weeks** from the date the child is **handed over to the adopting mother or the commissioning mother**, as the case may be.
- The term “**commissioning mother**” refers to a **surrogate mother** and has been defined as “**a biological mother who uses her egg to create an embryo implanted in any other woman.**”
- However, a woman **adopting a child older than three months gets no benefits**. This provision is being challenged on grounds of being “discriminatory” and “arbitrary” towards adoptive mothers.
- The plea also contended that the act arbitrarily discriminates against orphaned, abandoned, or surrendered children above the age of three months, which is completely incompatible to the object of the Maternity Benefit Act as well as the Juvenile Justice Act.

What are the issues?

- The plea stated that the absence of any provision for maternity leave for a mother adopting an orphaned, abandoned, or surrendered child above three months invariably prevented them from being able to utilize the statutory maternity benefits for adopted mothers, accorded by way of the 2017 amendment.
- The plea further stated that it is “almost impossible” for a mother to adopt a child less than three months old as the adoption procedure is fraught with delays.
- The plea also mentioned that Section 5(4) of the Maternity Benefit Act conflicted with **Section 38 of the Juvenile Justice Act, 2015**, which requires any orphaned, abandoned, or surrendered child to be declared “**legally free for adoption**” by the **Child Welfare Committee**.
- The Adoption Regulations required **two months for a child to be declared “legally free for adoption”**.

What is the Maternity Benefit Act, 1961?

- On December 12, 1961, the Maternity Benefit Act was first approved by Parliament with the **objective of regulating the employment of women in "certain establishments"** during and after pregnancy and "to provide for maternity benefit and certain other benefits."
- It repealed the Mines Maternity Benefit Act, 1941 and Maternity Benefit Act, 1929.
- Originally, it applied to every establishment "being a factory, mine, or plantation."
- In 1973, it was expanded to include "any such establishment belonging to Government" and "every establishment where persons are employed for the exhibition of equestrian, acrobatic, and other performances."
- In accordance with sub-section (1) of Section 4 of the 1961 Act, "No employer shall knowingly employ a woman in any establishment **during the six weeks immediately following the day of her delivery or her miscarriage.**"
- **Section 5 of the 1961 Act** also granted the **right to paid maternity leaves**, but only for a maximum of twelve weeks, or "that is, six weeks up to and including the day of her delivery and six weeks immediately following that day."
- In addition, a woman had to have worked there for at least "one hundred and sixty days in the twelve months immediately preceding the date of her expected delivery" in order to be eligible for maternity benefits.

- These benefits would be provided without the female employee being dismissed or having her pay reduced. Violating provisions of the Act could result in three months' punishment, with or without a fine.
- On March 9, 2017, the Maternity Benefits (Amendment) Act 2017, was passed by Parliament, which brought about key changes to the original Act.



Maternity Benefit (Amendment) Act, 2017 added following provisions to the Maternity Benefit Act 1961

- It increased the maternity leave from **existing 12 to 26 weeks** for working women with **less than two surviving children**.
- Provisions for **work from home** for nursing mothers.
- **Mandatory provisions** for establishments **having fifty or more employees to have the facility of creche**.
- Extension of **twelve weeks** of maternity benefit to the '**commissioning mother**' and the 'adopting mother' from the date the child is handed over.
- All women working in factories, mines, shops, or other commercial establishments with ten or more employees are subject to the act.
- However, a much-received criticism of this Act is that it does not apply to the unorganized sector.

Concerns

- The Maternity Benefit (Amendment) Act of 2017 does not extend its benefits to women working in the unorganized sector.
- Even three years after the amending Act was approved, according to a research by TeamLease, a human resources firm, it had yet to "deliver a positive impact on job opportunities for women."
- In addition, the survey stated that since the Act's introduction, women's participation has decreased in more than five out of ten sectors.
- According to the analysis, the Act is likely to have a favorable impact on women's workforce participation in 7 out of the 10 industries examined in the medium term (1-4 years).
- However, 5 of the 10 sectors are lagging, and instead indicating a drop in the share of women in their workforce, as per the report.
- As per the report most of the women (30 percent) cited wage cuts followed by resistance or lack of support from family (25 percent) and access to childcare (20 percent).

How India Spends On Health

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Helath

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health

Context:

- According to the **National Health Account Estimates 2019-20**, which was released recently stated that there has been a constant growth in government spending, with decreasing out-of-pocket expenditure by consumers on their healthcare requirements.
- According to the recent report, the government spent 1.35% of the country's GDP (total value of final products and services in a year indicative of a country's economy) on healthcare throughout the year, reversing a modest decrease witnessed in 2018-19.
- The health account estimates depict the country's overall healthcare spending - whether by the government, private sector, NGOs, or people, as well as flow of these funds.
- It gives answers to issues such as what the sources of healthcare spending are, who administers the expenditures, who delivers health care services, and which services are utilized.

PROFILE OF HEALTH EXPENDITURE



INDICATOR	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Total spend as % of GDP	3.9	3.8	3.8	3.3	3.2	3.3
Govt spend as % of GDP	1.13	1.18	1.2	1.35	1.28	1.35
Out of pocket spending as % of total spend	62.6	60.6	58.7	48.8	48.2	47.1
Govt spend as % of total	29	30.6	32.4	48.8	40.6	41.4
Social security as % of total	5.7	6.3	7.3	9	9.6	9.3
Pvt insurance spend as % of total spend	3.9	4.2	4.7	5.8	6.6	7.72
Current health spend as % of total spending*	93.4	93.7	92.8	88.5	90.6	90.5

Govt healthcare spending as % of GDP likely to increase further next year as Covid spends are reflected. file

*A lower percentage indicates greater spending on infrastructure, equipment, etc. that will last for years. **Social security expenditure includes spends on schemes such as PM-JAY, ISBY, and state insurance. Data source: National Health Accounts Estimates 2019-20

About National Health Accounts Estimates for India

- The report is prepared annually by the National Health Systems Resource Centre (under the Health Ministry).
- It represents the entire expenditure on healthcare in the country, whether by the government, the private sector, non-governmental organizations, or individuals, and the flow of funds.
- The National Health Account (NHA) estimates for India 2019-20 is the seventh consecutive NHA estimates report issued by NHSRC, which was designated as the National Health Accounts Technical Secretariat (NHATS) by the Union Health Ministry in 2014.
- The NHA estimates are calculated using an accounting methodology based on the World Health Organization's (WHO) globally recognized standard of System of Health Accounts, 2011.
- With the current NHA estimate, India now has a continuous set of NHA estimates from 2013-14 to 2019-20. These figures are not only comparable worldwide, but also allow policymakers to monitor the country's progress in several health financing measures.

Main findings of the report

- **Government spending on healthcare:** The government's healthcare spending as a proportion of GDP has risen from 1.13% in FY 2015 to 1.35% in FY 2020.
- Even a tiny percentage increase in the government's health budget has resulted in virtually doubling the money spent on each individual - the government's per capita health expenditure has gone from Rs 1,108 to Rs 2,014.
- Between FY 2015 and FY 2020, the government's share of overall healthcare spending in the country increased by 12.4 percentage points, from 29% to 41.4%.
- **Own pocket expenditure:** People's out-of-pocket spending on healthcare has been declining. According to the research, 47.1% of overall healthcare spending in FY2020 came straight from individuals' pockets. This represents a 15.5% point decrease from 62.6% of total spending in FY 2015.
- The goal is to reduce this as much as possible by investing in public health and insurance, among other things, so that people do not have to pay when they are ill.

- **Primary sector expenditure:** The primary sector accounted for a sizable portion of the government's health-care budget. In fiscal 2020, the government spent 55.9% of the overall healthcare budget on primary care, 29.6% on secondary care, and 6.4% on tertiary care. In FY 2015, the government spent 51.3% on primary care, 21.9% on secondary care, and 14% on tertiary care.
- **Social security expenditure:** According to the report, the government has consistently raised social security expenditures, which has risen from 5.7% of total health spending in FY 2015 to 9.3% in FY 2020.

Budget Allocation for Health

- The health sector has been allocated **Rs.89,155 crore in the Union Budget 2023-24**, a 13% increase over the Rs.79,145 crore allocated in 2022-23, with the government also announcing a mission to eliminate sickle cell anaemia by 2047.

Spending on Insurance

- The report shows that there has also been a rise in expenditure on privately acquired health insurance.
- **Privately purchased health insurance** accounted for 3.9% of total health spending in FY 2015, rising to 7.72% in FY 2020.
- **Government-funded health insurance** spending increased from 3.8% of total healthcare spending in FY 2015 to 6.37% in FY 2020.
- The increased purchase of private insurance was a positive trend demonstrating that consumers embraced this as a path ahead, supplementing the government's healthcare spending.

Way Forward

- Health and Wellness Centres insuring preventative care and the Ayushman Bharat insurance system providing free treatment are the way to go, but execution must be reinforced so that the poor can actually receive care.
- Out-of-pocket spending can also be decreased by optimizing the procurement of medicines, which account for a substantial amount of health-care expenses, as well as enhancing services in public-sector hospitals.
- There is a need for states to raise their contributions to healthcare in order to meet the objective established by the National Health Policy 2017 of 8% of state budgets going to healthcare.
- As health is a state subject, much of the government spending comes from the states, and there is a need for the Centre to provide more support to states.
- Currently, government schemes compel states to spend by allocating a percentage from the Centre for the implementation of a scheme.
- However, if a state decides to implement a scheme, it must be supported by the Centre.

For example: Rajasthan, which is attempting to implement the right to health bill; the Centre should support such efforts by providing additional funds.

The Many Benefits of Marriage Equality

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Indian polity

Prepp Mains Booster: Government policies and interventions for development in various sectors; Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

Context:

- Recently, the Supreme Court started hearing petitions from lesbian, gay, bisexual, transgender, and queer (LGBTQ+) petitioners seeking same-sex marriage equality.

Key Points

- In India, getting married is one of the highlights of becoming an adult.

- Remaining single and not being married is frowned upon by the entire family as married couples are generally seen as more accepted and respectable than a non-married couple in our traditional culture.
- Therefore, excluding LGBTQ+ persons from marriage excludes us from full benefits of participating in family and community life.



What is Same-Sex Marriage?

- It is the practice of marrying between persons of the same gender.
- In most nations, same-sex marriage is prohibited by law, religion, or tradition.
- Marriage between same-sex couples is legally conducted and recognized in more than 30 countries as of 2022.
- Same-sex marriage is currently not legal in India, and the topic remains a subject of debate and controversy.

Distortion of the union

- Marriage is defined as a union between a man and a woman only, so to allow LGBTQ+ persons to marry would somehow distort this union.
- **Tangible benefits** include the ability to open joint bank accounts, jointly buy or rent a property, jointly own and share financial assets, be recognised as a relative under the Indian Income Tax Act, access a spouse's health and life insurance, and inherit a spouse's assets if one partner dies.
- **Intangible benefits** include gaining legitimacy, respect and affection from society and being able to participate fully in all family events.
- Many private company's policies have been challenging to implement with insurance companies as same-sex partners are not legally recognised as spouses.

What are the pros and cons?

Pros:

- **Equal rights:** Legalizing same-sex marriage would provide equal rights and recognition to LGBTQ+ individuals and their relationships. It would also help to reduce discrimination and stigma towards the LGBTQ+ community.
- **Social acceptance:** Legalizing same-sex marriage could lead to greater social acceptance and normalization of LGBTQ+ relationships and individuals.
- **Economic benefits:** Same-sex couples could benefit from the legal recognition of their relationships, including inheritance rights, tax benefits, and access to healthcare and other benefits provided to married couples.

Cons:

- **Cultural and religious values:** India has a conservative and traditional society, with strong cultural and religious values. The legalization of same-sex marriage could be seen as a threat to these values and may be met with opposition from conservative groups.
- **Family and societal pressure:** Family and societal pressure to conform to heterosexual norms and expectations could lead to significant social pressure against same-sex marriage.

- **Legal and administrative challenges:** Legalizing same-sex marriage would require changes to existing laws and administrative structures, which could be a complicated and time-consuming process.
- **Opposition from political and religious groups:** Same-sex marriage is often opposed by political and religious groups who may see it as a violation of their beliefs and values.

Efforts to protect employees in Indian workplace

- The efforts to increase diversity and inclusion in the Indian workplace have gained momentum.
- Many firms have extended key HR values of fairness, equality, and non-discrimination to their LGBTQ+ employees, and have rewritten their equal opportunity and anti-discrimination policies to specifically protect LGBTQ+ employees from discrimination, bullying, and harassment.
- Some employers provide benefits such as spouse health insurance to their workers' same-sex partners.
- However, these rules have been difficult to execute with insurance companies since same-sex partners are not legally recognized as spouses.
- These initiatives have had no negative implications or criticism from the bulk of the workforce.
- In reality, inclusive policies that support a diverse workforce have resulted in increased loyalty and engagement because employees feel they can be their genuine selves at work while still completely belonging to their organization, something they may not receive at home.

Recommendations

- The government must recognize that denying same-sex couples the right to marry violates their fundamental rights to equality and privacy. The government must recognize that the freedom to marry is a legal and social problem that demands attention and action.
- There should be an amendment to the Special Marriage Act which will necessitate language adjustments to eliminate references to the terms "husband" and "wife." The courts can either accept this translation of the Act or proclaim a right to same-sex marriage and direct the state to recognize it under the Act.
- The government must address the issues voiced by those who oppose same-sex marriage. The notion that same-sex marriage disrupts marriage's integrity is religious in nature and does not apply to secular laws such as the Special Marriage Act.
- There needs to be a shift in public attitudes on same-sex marriage. Education and awareness initiatives must be developed to assist people understand that same-sex partnerships are natural and normal.
- The media may play an essential role in promoting positive images of LGBTQ+ persons and couples.

The Women's Reservation Bill Cannot Wait Any Longer

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Women Reservation bill

Prepp Mains Booster: Mechanisms, laws, institutions, and Bodies are constituted for the protection and betterment of these vulnerable sections. Role of women

Context:

- Despite women breaking the glass ceiling of patriarchy in every sector, Parliament lacks substantial representation from half the population, with women holding just 14% of the seats.
- The author (National Spokesperson, Aam Aadmi Party) in this article, emphasizes that it is time to acknowledge the systematic exclusion of women from politics and demand action to create a more equitable political landscape.

Call for political representation of women in India

- The call for political representation of women in India has its roots in the pre-Independence era when several women's groups demanded it.

- In 1955, a government-appointed committee suggested reserving 10% of seats in the Lok Sabha and State legislative assemblies for women.
- However, it was not until the 1980s that the demand for **women's reservations gained momentum**.
- The **National Perspective Plan for Women in 1988** recommended reserving 30% of seats in all elected bodies for women.
- This recommendation was reiterated in the **National Policy for the Empowerment of Women**, which was adopted in 2001.



Global Scenario

- Worldwide, women leaders are **outperforming** their male counterparts.
- In addition, nations **headed by women have demonstrated** to have some of the best laws and methods of government.
- For instance, the severe scars left by the genocide in **Rwanda**, a country in central Africa, are being healed by a government made up primarily of women, which has also led to resulted in key social reforms.
- The **Scandinavian countries** have established policies and governance structures to promote gender equality and women's empowerment, including the representation of women in political and leadership positions.
- Norway implemented a quota system in 2003 mandating that 40% of corporate board seats be held by women.

Role of Women

- **Role of women during the Independence struggle:** During India's fight for independence, women played a significant role in organizing protests, leading rallies, and spreading awareness.
- **Women's representation in the pre-independence era:** Women were also represented in the Constituent Assembly. The idea of women's **political representation in India dates back to the pre-Independence era** when various women's organizations demanded it.
- **Post-independence:** In 1955, a government-appointed committee suggested that 10% of seats in the Lok Sabha and State legislative assemblies should be reserved for women. However, it was not until the 1980s that this demand gained traction.
- **Recent trend:** A decade ago, states of West Bengal, Tamil Nadu, and Uttar Pradesh, were being led by women Chief Ministers.
- While Sushma Swaraj was the leader of the Opposition in the Lok Sabha, Sonia Gandhi served as both President of the Congress Party and Chairperson of the United Progressive Alliance. Also, India had its first woman President, Pratibha Patil around the same time.

Steps Taken by Government

- The Panchayati Raj Act was amended in 1993 to reserve 33% of all seats in local government bodies for women. It was a significant step towards women's political empowerment. The success of this reservation led to demands for similar reservations in other elected bodies;
- The **Women's Reservation Bill** was introduced in the Lok Sabha in 1996 it proposed to reserve one-third of seats in the Lok Sabha and State Legislative Assemblies for women.

- However, facing strong opposition from some political parties the bill lapsed but it gained more momentum again in the early 2000s. The Bill was approved in the Rajya Sabha on March 9, 2010.

Why is political representation more important than token representation?

- It would not be wrong to infer that the issue of political representation of women is a greater case, as opposed to having **token representation**, because token representation only involves having a **small number of women in positions of power**, which may not necessarily lead to meaningful change or gender equality.
- On the other hand, having a **greater representation** of women in politics can lead to policies and governance structures that support **gender equality and women's empowerment**.
- The reservation of seats for women in elected bodies can also provide women with **equal opportunities** to participate in politics and decision-making, rather than being excluded or underrepresented.

Importance of the Women's Reservation Bill

- **Development of Nation:** Women should have a greater presence in politics if India is to develop on par with other nations.
- **Better implementation:** According to the American Economic Association, countries with a higher proportion of women in national parliaments are more likely to pass and implement gender-sensitive legislation.
- **Increased female participation:** According to a 2010 Harvard Kennedy School study, female representation in village councils increased female participation and responsiveness to issues such as drinking water, infrastructure, sanitation, and roads.

What is the status of women in Parliament?

- Women make up only about 14% of Indian Parliament members, the highest proportion so far.
- According to the Inter-Parliamentary Union, India has a lower percentage of women in the lower House than its neighbors Nepal, Pakistan, Sri Lanka, and Bangladesh — a dismal record.
- India ranks 144th out of 193 countries in terms of female parliamentary representation, according to the latest Inter-Parliamentary Union report.

What are the arguments against the bill?

- Opponents of women's reservations argue that the concept contradicts the Constitution's principle of equality.
- If women are not allowed to compete on merit, their social status will suffer.
- Unlike a caste group, women are not a homogenous community. As a result, the same arguments used to justify caste-based reservations cannot be used to justify reservations for women.
- Women's interests cannot be separated from other social, economic, and political groups.
- Reserving seats in Parliament will limit voters' options to female candidates.
- As men hold primary power as well as key positions in politics, some have even argued that bringing women into politics could destroy the "ideal family".

Way forward

- **Dr. Babasaheb Ambedkar** believed that a community's progress can be measured by **the progress achieved by women**. However, the current situation falls short of this benchmark, and change is necessary to promote equality
- In this Amrit Kaal, as India strives to become a Vishwa Guru, it must not overlook the pivotal role women could play in nation-building and development therefore the Women's Reservation Bill must be passed.
- Now, it is time for the women in India, the 'mother of democracy', to lead the nation.

SC Slams Karnataka For Scrapping OBC Quota For Muslims



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster:

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

Context:

- Recently, the **Supreme Court told the Karnataka Government that its recent order scrapping the 4% OBC quota for Muslims and distributing it among Vokkaliga and Lingayat caste is based on 'fallacious assumptions'.**

Reservation in India

- Reservation in India is an affirmative action system that provides historically disadvantaged communities with representation in education, jobs, government initiatives, scholarships, and politics.
- Based on provisions in the Indian Constitution, it allows the Union Government and the States and Territories of India to set reserved quotas or seats, at a specific percentage, in Education Admissions, Employments, Political Bodies, Promotions, and so on, for "socially and educationally backward citizens."



How has OBC and SC reservation changed?

- The Karnataka government announced two new categories for reservation in jobs and education and scrapped the four per cent quota for Muslims.
- The four per cent Muslim quota has been divided between the Vokkaligas and Lingayats at 2% each.
- New 2C and 2D categories have been developed for them.
- As a result, the quota for Vokkaligas increased to 6%, while the reservation for Veerashaiva-Lingayats increased to 7%.
- Previously, both were classified as 3A and 3B, which is now scrapped.
- Muslims eligible for quota have been categorised under economically weaker sections now.

Impact on Muslim Community

- The Indian Constitution prohibits reservation based merely on religion, the implementation of reservation for Muslims in Karnataka in 1995 was based on the identification of backward sectors within the community.
- The government's decision to eliminate the quota without a recommendation from the Karnataka State Backward Classes Commission has generated suspicions about the political motivations underlying the move.
- Since 1995, the community has received 4% reserve under Category 2B on the basis of being socially and educationally backward.
- Because the community has lost its reserve status for social and educational backwardness, it can claim reservation under the 10% quota

for Economically Weaker Sections. The Centre must approve this change.

- Christians, Jains, Sikhs, Buddhists, and converted Christians, on the other hand, continue to be classified as backward classes.

How reservations pie has been carved

CURRENT		PROPOSED	
Category I	4% - Backward Castes	Category I	4% Backward Castes
Category II (A)	15% - OBCs	Category II (A)	15% - OBCs
Category II (B)	4% - Muslims	Category II (B)	-
Category III (A)	4% - Vokkaliga, Balija etc	Category II (C)	6% (including 2% of cancelled Muslim share) - Vokkaliga etc.
Category III (B)	5% - Lingayat, Maratha, Christian, etc.	Category II (D)	7% (including 2% of cancelled Muslim share) - Lingayat etc.
SCs	17%	SCs	17% (6% SC Left, 5.5% SC Right, 4.5% Touchable, 1% Others)
STs	7%	STs	7%
EWS	10%	EWS/Muslims	10%
Total	66%	Total	66%
SC ceiling on reservations - 50%			

Constitutional validity of Reservation

- The Indian Constitution provides for a quota for Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC), but not for reservation solely on the basis of religion.
- Article 15(1) of the Constitution forbids discrimination on the basis of religion, race, caste, gender, or place of birth.
- However, Article 15(4) allows for particular provisions for the progress of any socially and educationally backward sections of people, as well as SCs and STs.
- As a result, reservation for religious minorities is only viable if they are classified as socially and educationally backward.

Conclusion

- Changing reservation policy in the run-up to elections is a difficult move, and it remains to be seen how it will affect the outcome of the polls.
- It is critical to strike a balance between respecting historically marginalised communities and avoiding divisive politics that could exacerbate tensions.
- The government must take a sophisticated approach that addresses the interests of all segments of society while respecting constitutional objectives of equality and social justice.

On The Code On Social Security For Platform-Based Gig Workers



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Gig economy

Prepp Mains Booster: Government policies and interventions for development in various sectors, and issues arising out of their design and implementation; Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth;

Context:

- Recently, the Ashok Gehlot led Rajasthan government has announced the **Rajasthan Platform-based Gig Workers (Registration and Welfare) Bill, 2023**, which has stringent provisions against errant aggregators as well as various welfare policies.

GIG, A NEW-AGE ECONOMY

BENEFITS

- Creation of jobs on mass scale
- Freedom and flexibility of work
- Easy access to services
- Price advantage for consumers

DOWNSIDE

- Inconsistency in services
- Partners arm-twisted by service providers
- Difficult to trust a service provider without a recommendation from someone you trust



CHALLENGES FOR GOVT

- Highly unregulated
- Lack of policies on job structure, tax, privacy
- Exponential growth



FEW KEY PLAYERS

UBER, OLA, ZOMATO, FOODPANDA, SWIGGY, AIRBNB, UPWORK

CRUISE MODE

- Ola, Uber offered fat incentives in the initial years
- Targets were pretty achievable
- Hundreds of thousands availed bought cars to partner with Ola, Uber
- Few claimed to earned Rs 1 lakh a month



FOR OLA, UBER DRIVERS

REVERSE GEAR

- Drivers hit downhill road as Ola, Uber gained market share
- Incentives became unattractive
- Needed more trips to meet targets, had to face growing traffic
- Crimes on passengers compounded problems

What is the gig economy?

- The "gig economy" involves the exchange of labour for money between individuals or companies via digital platforms that actively facilitate matching between providers and customers, on a short-term and payment-by-task basis.
- Examples include ride-hailing apps, food delivery apps, and holiday rental apps.

Benefits

- **Flexibility:** According to the OECD, Generating additional income and having work flexibility are the most common motives to work for gig economy platforms.
- **Freedom:** It gives greater control of your own schedule.
- Millennial workers largely use it as an income gap filler.
- **Variety:** A wide variety of tasks and clients helps gig workers be more enthusiastic and creative in their work.

What are the issues faced by Gig workers?

- **Uncertainty in wages:** Gig-platform worker wages can be changed quickly, and are at the mercy of much larger forces in platform companies. **Example:** Recent changes in delivery charges by Blinkit.
- **Limited control over work:** Platform workers have limited control over the conditions of their employment, despite being referred to by businesses as independent contractors who work for themselves.
- Although the rate is constantly fluctuating, most delivery personnel are unaware of these variations. The amount a worker will receive each week is uncertain because it can alter at any given day, week, or hour.
- **Definition of worker:** The Code on Wages, 2019, defines an 'employee' primarily based on the concept of 'wages', which may not fully capture the nuances of gig workers or platform workers.
- The prescriptive nature of legislation places restrictions on what rights can be demanded and how these rights might be demanded.
- **Non guaranteed:** Under the **Code on Social Security, 2020**, platform workers are eligible for benefits such as maternity benefits, life and disability cover, old age protection, provident fund, employment injury benefits, etc. However, these benefits are not guaranteed and are subject to the formulation of welfare schemes by the Central and State governments.

Steps to be taken

- **Need for legislation:** Labor laws are based on the employer-employee relationship; however with the rise of the gig economy, the line between the employer and the employee is being blurred. The employer appears to be a mobile app. This is where new legislation and framework should come in to address this change.
- **Employment status:** There should be a clear cut methodology to determine the employment status of gig workers, whether they are considered as employees or independent contractors.
- **Social security:** The gig workers should have benefits like flat pay rates instead of incentives, insurance cover etc.
- **Safety Provisions:** Gig workers should be provided with safety provisions, such as **proper equipment, training, and insurance**, to ensure their safety and well-being while performing their tasks.
- **Implementation of Niti aayog's proposal:** NITI Aayog in its **report titled 'India's Booming Gig and Platform Economy'**, has recommended extending social security measures such as income support, paid sick leaves, insurance and pension plans to people working for platform companies like Swiggy, Zomato, Ola, and Uber.
- It also proposed fiscal incentives, like tax breaks or start-up grants, for companies with about one-third of their workforce as women and people with disabilities.

Conclusion

- Although it is a growing segment, bringing economic benefits of productivity and employment. The Blinkit protests last week are a reminder of the kind of problems that are specific to gig-platform workers it raises questions about levels of worker protection.
- Therefore, there is a need to recognise the varied nature of platform work to design equitable schemes and ensure benefits are readily accessible to workers.

Code on Social Security, 2020.

- For the first time, the definition of "gig worker" and "platform worker" has been provided in the Code on Social Security, 2020.
- The Code on Social Security, 2020 envisages social security benefits through formulation of schemes for gig and platform workers and can be implemented through Employees' Provident Fund Organisation (EPFO) and Employees' State Insurance Corporation (ESIC) which hitherto provides social security benefits to organized sector workers.
- The Code also provides for framing suitable social security schemes for gig workers and platform workers on matters relating to life and disability cover, accident insurance, health and maternity benefits, old age protection, etc.
- The Code also provides for setting up a Social Security Fund and one of the sources of funds is contribution from aggregators between 1 to 2% of annual turnover of an aggregator subject to the limit of 5% of the amount paid or payable by an aggregator to such workers.

How Tamil Nadu And The Centre Have Locked Horns Over The Issue Of Online Gaming

Priority: Medium

Primary Source: Indian Express

Prepp Prelims Booster: Online Gaming

Prepp Mains Booster: Government policies and interventions for development in various sectors and issues arising out of their design and implementation, Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure

Context:

- Recently, the Governor of Tamil Nadu provided his assent to the bill which prohibited online gambling and online games of chance in the state.
- The Union Government had earlier notified amendments to the IT Rules, 2021 to regulate online games involving real money.

What is the new Bill introduced by Tamil Nadu?

- The Governor of Tamil Nadu has provided his assent for the **Tamil Nadu Prohibition of Online Gambling and Regulation of Online Gaming Ordinance, 2022**.
- The Bill had been passed by the Assembly in October 2022, but the Governor returned the bill for the Assembly's reconsideration in March, but the Bill was readopted and sent to the Governor by the Assembly a few weeks later.
- The Bill has prohibited online gambling and online games of chance that involved real money or other valuable stakes.
- Although Rummy and Poker have been specifically named as games of chance, the bill was wider in scope in terms of defining online games of chance.
- An **online game of chance** was defined as one where both chance and skill were involved with the element of chance dominating the element of skill. It also includes games presented as games of chance where chance could only be eliminated by superior skill or games based on cards, dice, or wheels which worked on random event generators.
- The Bill also established the **Tamil Nadu Online Gaming Authority** which was empowered to regulate online gaming companies.
- The proposed authority was also made responsible for the identification of games of chance and recommending their inclusion in the Schedule of prohibited games.
- Companies which were based outside the state were also required to follow the prescribed due diligence or restrict access to prohibited games for consumers in Tamil Nadu.



Union Regulations on Online Gaming

- The Union had recently notified amendments to the **Information Technology Rules, 2021** which included new rules that would regulate online games involving real money.
- The Minister of State for the Ministry of Electronics and Information Technology had stated that the Union Government notification had made State regulations regarding online gaming redundant.
- According to the MeitY, **gambling was a state subject** but activities that were conducted over the internet including online gaming and gambling were within the MeitY's exclusive authority.
- The new changes introduced by the Union Government have necessitated the establishment of numerous **Self Regulatory Bodies or SRBs** which would be required to pre-approve online games that included a monetary element.
- Games that involved wagering on outcomes of events would not be permitted.
- Online Gaming Companies would be required to complete the **KYC procedure**, as per RBI norms for regulated entities, for new users when they made a deposit in their accounts in order to play a game.

Opinion of the Judiciary and online gaming companies

- Industry associations like the All India Gaming Federation (AIGF) and E-Gaming Federation (EGF) which represent online gaming companies have criticised the new Bill and the Governor's decision to give assent.

- According to Roland Landers, the head of the AIGF, the Bill was unconstitutional and the body would challenge it in court once the state government notified the provisions of the ordinance.
- The AIGF had previously challenged the provisions of the Bill before the Madras High Court but was permitted to withdraw the challenge because the government had not yet notified the Bill. The Court had permitted the AIGF to refile its petition once the government enacted the bill as a law.
- The EGF has stated that it would examine the legislation before taking appropriate action based on sound legal advice.
- The industry associations have also raised their concerns with the **MeitY, which is the nodal ministry for the sector**.
- In 2022, the Karnataka High Court declared certain provisions of the **Karnataka Police (Amendment) Act (2021)**, which prohibited and criminalized online games in which real money was involved, to be unconstitutional.

Conclusion

According to the online gaming industry, the new Bill was another instance in a number of disagreements between the Centre and the states on various issues. The industry has also expressed concerns that state-wise regulations could adversely affect their interests and have requested the Union Government to consider the matter. The States and the Centre should collaborate to ensure that a uniform regulatory structure is provided for and the concerns of all stakeholders are dealt with.

To know more about Centre-State relations, click [here](#).

The Ambiguities In The Nuclear Liability Law

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Indian Economy

Prepp Mains Booster: Government Policies & Interventions; Science & Technology; Nuclear Technology

Context:

- In this article, Diksha Munjal of the Hindu has discussed the **issues with India's nuclear liability law**.
- The law continues to hold up a more than a decade-old proposal to **develop six nuclear power reactors in Maharashtra's Jaitapur, the world's largest nuclear power generation site under consideration at the moment**.
- Two years after the French energy company Electricite de France (EDF) submitted its techno-commercial offer for the construction of six nuclear power reactors in Maharashtra's Jaitapur, talks between Indian and French officials over several issues, including liability, have yet to yield a breakthrough.

Nuclear Power Plants in India

- Nuclear energy is India's fifth-largest source of power, after thermal, hydroelectric, and renewable energy sources.
- India already has 22 nuclear power reactors in 7 states, with a total installed capacity of 6780 MegaWatts of energy (MWe).
- The total number of reactors (LWRs) consists of four light water reactors and 18 PHWRs.
- The **Nuclear Power organization of India Limited, or NPCIL**, is an Indian government-owned organization with headquarters in Mumbai that is in charge of producing power using nuclear energy.
- NPCIL is overseen by the Government of India's **Department of Atomic Energy (DAE)**.

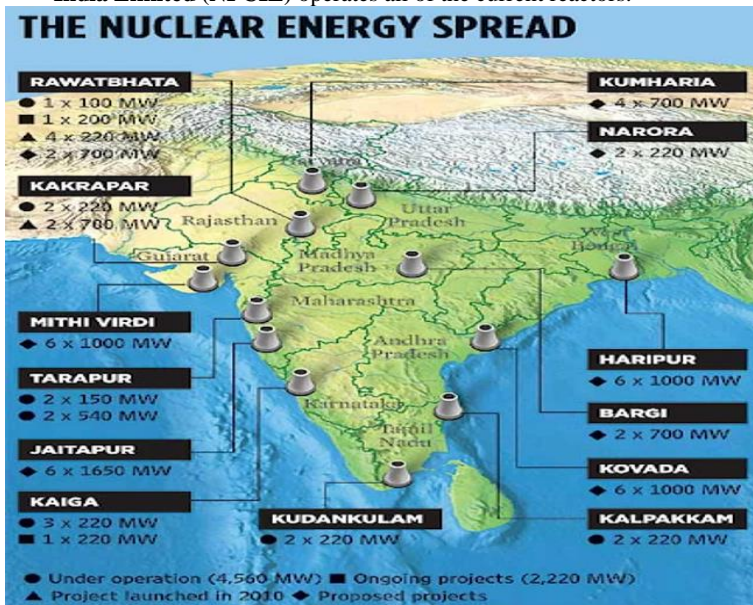
What is the legislation in India that governs nuclear liability?

- **Civil nuclear liability laws** guarantee that victims receive compensation for nuclear damage caused by a nuclear event or disaster, and they specify who is responsible for those damages.
- The international nuclear liability framework is made up of many accords that were enhanced following the 1986 Chernobyl nuclear tragedy.

- The umbrella **Convention on Supplementary Compensation (CSC)** was formed in 1997 with the goal of setting a minimum national compensation level.
- If the national amount is inadequate to pay for the harm caused by a nuclear event, the amount might be increased further by public money (to be made available by the contractual parties).

About Civil Liability for Nuclear Damage Act

- India was a signatory to the **Convention on Supplementary Compensation (CSC)**, Parliament only ratified the convention in 2016.
- In order to comply with the international agreement, India implemented the **Civil Liability for Nuclear Damage Act (CLNDA)** in 2010, which established a rapid compensation process for victims of a nuclear catastrophe.
- The CLNDA imposes severe and no-fault responsibility on the nuclear plant operator, holding it accountable for harm regardless of negligence on its side.
- It also stipulates the amount the operator must pay in the event of damage caused by an accident at Rs.1,500 crore and requires the operator to cover liabilities through insurance or other financial security.
- If the damage claims surpass Rs.1,500 crore, the CLNDA expects the government to step in and has restricted the government liability amount to the currency equivalent of 300 million **Special Drawing Rights (SDRs)**, or around Rs.2,100 to Rs.2,300 crore.
- The Act also defines the amount and time limit for bringing a compensation action against the operator.
- India presently has 22 nuclear reactors, with more than a dozen more projects in the works. The state-owned **Nuclear Power Corporation of India Limited (NPCIL)** operates all of the current reactors.



What is the issue?

- The law does not specify the maximum liability that can be imposed on operators, leaving it open to interpretation. This has led to concerns that the liability cap may not be sufficient to cover the full costs of a nuclear accident, particularly in the case of a catastrophic event.
- Under Section 17(b), liability for a nuclear accident can be channeled from the operator, which is the Nuclear Power Corporation of India, to suppliers of nuclear material, specifically if the accident is due to an act of the supplier or his employee, which includes supply of equipment or material with patent or latent defects or sub-standard services.
- Section 46 permits victims of a nuclear incident to sue the operator or the supplier for damages applying tort law, even though such proceedings would be beyond the scope of CLNDA and its liability cap, and thus exposing suppliers to unlimited liability.

- Both clauses are likely to raise suppliers' cost of insurance cover, possibly beyond what is feasible commercially and within the confines of competitive energy pricing.
- Claims for compensation can be filed within ten years of the date of notification of a nuclear incident. This may be inadequate in cases where the effects of radiation are discovered after a substantial period of time.
- The law relates to the right of recourse against suppliers. While the law allows operators to seek compensation from suppliers in certain circumstances, it does not provide a clear definition of what constitutes a "defect" in the equipment or technology supplied.
- This has created uncertainty for suppliers, who may be reluctant to provide nuclear technology to India due to the potential legal risks.
- While the law seeks to ensure that operators are held accountable for any nuclear damage that may occur, it also places limitations on the liability of suppliers and fails to provide clear guidelines on the maximum liability that can be imposed.

What are the existing projects in India?

- The Jaitapur nuclear project has been dormant for more than a decade, with the initial MoU signed in 2009 with EDF's predecessor Areva.
- In 2016, French energy company Electricite de France (EDF) and NPCIL signed a new Memorandum of Understanding, and in 2018, the chiefs of both organizations signed an agreement on the "industrial way forward" in the presence of Indian Prime Minister Narendra Modi and French President Emmanuel Macron.
- The EDF presented its techno-commercial bid for the building of six nuclear power reactors in 2020, although it was said that the problem stemming from India's nuclear liability law remains on the "agenda for both countries."
- Other nuclear projects, including one proposed in Kovvada, Andhra Pradesh, have also been halted.
- Despite completing civil nuclear accords with a number of nations, including the United States, France, and Japan, Russia's lone foreign presence in India is in Kudankulam, which predates the nuclear liability legislation.

Behind The Kudmis' Agitation In Bengal And Jharkhand For Scheduled Tribe Status

Priority: Medium

Primary Source: Indian Express

Prepp Prelims Booster: Kudmi

Prepp Mains Booster: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections; moral and political attitudes; social influence and persuasion.

Context:

- Recently, the Kudmis of West Bengal and Jharkhand have ceased their agitation demanding Scheduled Tribe status and the inclusion of their language in the Eighth Schedule.
- The Kudmis were included in the Scheduled Tribe list during British rule but were excluded post Independence.

Who are the Kudmis?

- The **Kudmis or Kurmis** were a peasant community who mainly inhabited the Junglemahal or Chotanagpur plateau regions of West Bengal, Jharkhand and Odisha.
- Kudmis have also been observed in parts of Assam and northern West Bengal. The inhabitants of these regions were believed to be the descendants of migrants from the Chotanagpur region.
- They were a non-elite tiller class of people who inhabited the lower Gangetic Plain.
- They have been **classified as Other Backward classes** in Odisha, West Bengal and Jharkhand.

- The language spoken by the Kurmi people is **Kurmali**, which was spoken by around four crore people.



Are the Kurmis included in the ST List?

- During British rule, the Kurmis were included in the list of Aboriginal communities or Scheduled Tribes (ST) and were considered primitive tribes like the Munda, Santhal, Oraon, Bhumji, Kharia, etc.
- The Kurmis were however excluded from the List of Scheduled Tribes prepared in 1950.
- The community has been agitating for a restoration of the ST status that they were granted during colonial rule.

Why were the Kurmis excluded?

- Members of the Kurmi community have explained that during British rule some affluent Kurmis attempted to elevate their social status as Kshatriyas, in the Hindu caste hierarchy, while others opposed the move which was viewed as **Sanskritisation**.
- According to experts, such an attempt at changing their caste identity to Kshatriya was not limited to the Kurmis. Other Adivasi communities were also participants in the movement.
- However, the majority of the members of the Kurmi community still practised their traditional religion and lifestyles.
- The **Kurmis were not included as STs in the 1931 Census and the 1950 Census** and were excluded from the list of Scheduled Tribes in independent India.
- Some members of the community have alleged that they were excluded from the list to display that the Hindu population had increased.

What has the Kurmi movement demanded?

- The Kurmi movement has been organised by the community demanding the restoration of their ST status and original identity as their socioeconomic condition had not changed.
- The movement led by the Adibasi Kudmi Samaj has intensified in the states of West Bengal, Jharkhand and Odisha over the last one year
- A Durku Mahajuruahi (Great gathering) of over one lakh people was organised by the Adibasi Kudmi Samaj.
- The community has demanded:
 - Inclusion in the ST list**, although they have clarified that their movement was not aimed at reservation benefits
 - Inclusion of Kurmali in the Eighth Schedule.**
 - Recognition of their religion-Sarna.**
- Several political and social organisations such as the Purbanchal Adibasi Kudmi Samaj, Kudmi Sena, Abga Kudmi Sena, Kudmi Samannay Samiti, Kudmi Unnayan Samiti, Kudmi Bikash Morcha, and United Kudumi Samaj have backed the agitating Kurmi community.

What is the Government's stand?

- The Kurmalis had lifted the blockade of railway lines and the partial blockade of National Highway 6 connecting Kolkata and Mumbai, following assurances from the Government of West Bengal.
- The state government has stated that the Central Government had to take a decision on the matter.

- In 2004, the government of Jharkhand recommended that the Kurmis be added to the ST list.
- However, the Central Tribal Research Institute had advised that the Kurmis were a sub-caste of the Kunbi and not a tribal community. Based on this report, the Union Government rejected the recommendation.
- According to the CTRI, the Kurmi people lacked the primitive characteristics needed for ST classification, were also strong from the economic, social, educational and political point of view and did not suffer from the stigma of untouchability.
- The Tribal Welfare Research Institute has stated that Kurmis were not mentioned as Tribes or Wood Tribes in the 1872 Census while the Revenue and Land Reform department has clarified that they were listed as a backward class under the Chotanagpur Tenancy Act, 1908.

What are the criteria for recognition as an ST?

- According to the Ministry of Tribal Affairs, the following are the criteria for a community to be included in the List of STs:
 - indications of primitive traits
 - distinctive culture
 - geographical isolation
 - shyness of contact with the community at large
 - backwardness.
- The **Constitution does not mention any specific criteria for the recognition of a community as a scheduled tribe.**

How are communities added to the List of STs?

- Article 366(25)** of the Constitution has defined Scheduled Tribes as such tribes or tribal communities or parts of or groups within such tribes or tribal communities that are deemed to be Scheduled Tribes under Article 342.
- The first step in the inclusion process is a recommendation from the state government to the Tribal Affairs Ministry, which after reviewing it forwards it to the Registrar General of India for approval.
- The next step involves securing approval from the National Commission on Scheduled Tribes after which the proposal is sent to the Cabinet for a final decision.
- The Constitution, under **Article 342**, has stated that the President can designate Scheduled Tribes after consulting with the Governor of the respective state.

Role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

The Future Of India's Civil Society Organisations

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Civil Society organisations

Prepp Mains Booster: Role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

Context:

- This article is written by Pushparaj Deshpande, the Director of the Samruddha Bharat Foundation, a multi-party platform that furthers India's constitutional promise. He is also the series editor of the 'Rethinking India series.
- In this article, he has discussed the challenges faced by civil society organizations.

What is a civil society organization?

- A civil society organization (CSO) or non-governmental organization (NGO) is any non-profit, voluntary citizens' group that is organized on a local, national or international level.
- It is task-oriented and driven by people with a common interest, civil society organizations (CSOs) perform a variety of services and humanitarian functions, bring citizens' concerns to Governments, monitor policies, and encourage political participation at the community level.

What are the issues?

- The challenges that India's civil society organizations (CSO) face range from the **new Foreign Contribution (Regulation) Act (FCRA)**-induced reduction in resources to a lack of a clear governance structure, techno-managerial dominance over volunteerism, to misunderstandings about non-profits.
- The Foreign Contribution Regulation Act (FCRA) regulates the funds received from outside India by NGOs working in India. It prohibits accepting foreign contributions "for any acts that are detrimental to the national interest."
- **Uncertainty:** The current situation has resulted in confusion, conflict, and dilemmas for civil society at various levels, both within and outside of it.
- Civil society appears to be grappling with uncertainty regarding the scope and urgency of the challenges it faces, leading to suspicion among stakeholders and causing displacement, misalignment, or fragmentation.
- **Trust deficit:** The trust deficit between the government and organisation.
- **Lack of resources:** Thousands working in the social sector, particularly in grassroots organizations, have already been rendered jobless as the ban on **sub-granting** has limited the resources.
- **Limited skills:** Numerous civil society organizations (CSOs) face challenges in creating and maintaining professional management systems due to limited skills and resources. This can make it challenging for them to develop effective strategies, manage staff and programs efficiently.
- **Misconception about the role of NGOs:** The biggest hurdle they face is misconceptions about their role in society. CSOs often encounter misconceptions that can impede their ability to garner support from the public and donors.
- **Targeted by political parties:** CSOs are frequently targeted by political parties, which further restricts their operations.
- The **above issues have limited the scope** of civil society organizations (CSO) or movements and their **ability to shape policy** has **shrunk drastically**. They are neither in the pre-legislative stage nor in the redressal of lacunae in the implementation of government schemes.



Steps that needs to be taken by Civil society to stay relevant

- **Leverage Social capital:** Civil societies should not dwell on the recent challenges posed by legislation and resource constraints but rather reflect on their **strengths and the social capital it has built over the years**.
- **People's organization:** Civil societies should leverage the leadership and institution-building efforts it has undertaken in the past and channel them **toward future actions and strategies**.
- One of the areas it can focus on is **people's organizations** which were created decades ago and are still functional without any external support.
- These collectives provided a solid foundation for civil society, which greatly aided a rights-based strategy that focused on the country's underprivileged populations.
- Devoid of any formal structure, people's collectives have substantial freedom and flexibility to take up challenging issues.
- People's organization may be an association, cooperative, federation, or other legal entity, established by the community to undertake collective

action to address community concerns and needs, and mutually share the benefits from the endeavor.

Way forward

- Civil society should explore, collective giving, a form of charitable giving where groups pool their donations to create larger funds to tackle problems and should focus on joint action to open up trusteeship to people from different backgrounds and use data and digital technologies to strengthen and improve the work of charity as today's inaction would directly contribute to the extinction of civil society, arguably the fifth pillar of Indian democracy.

Foreign Contribution (Regulation) Amendment Act,2020

- The Act prohibits public servants from receiving foreign contributions.
- Any person working for the government, paid by the government, or remunerated by the government for the performance of any public duty is considered a public servant.
- **Transfer of foreign contributions:** The Act prohibits the transfer of foreign contributions to any other person who isn't registered to accept foreign contributions.
- **Aadhaar number for registration:** The Act requires all office bearers, directors, or the key functionaries of a person receiving the foreign contribution to have an Aadhaar number as an identification document.
- The Foreign contributions must be deposited only in an account designated by the bank as an FCRA account in such branches of the State Bank of India, New Delhi, according to the Act.
- Reduction in the utilization of foreign contributions for administrative purposes: The Act suggests that administrative expenses be limited to **no more than 20% of total foreign funds received**. The limit was set at 50% in the FCRA 2010.
- **Surrender of certificate:** The Act allows a person to surrender their registration certificate to the central government.

International Relations

Australia Looks To India For Wide Market For Lithium Export

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Lithium

Prepp Mains Booster: Distribution of key natural resources across the world; Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Context:

- Recently, Australia's Minister for Trade and Tourism, stated that Australia prefers to have a diversified market for its lithium exports, including India, rather than being dependent solely on the United States.
- Lithium is a crucial metal required for manufacturing batteries used in electric vehicles.

What is the issue?

- Mr. Farrell, Australia's Minister for Trade and Tourism made remarks in the context of the U.S. Inflation Reduction Act (IRA), which was enacted in August 2022 and provides significant **subsidies to U.S.-produced electric vehicles**.
- The **European Union and South Korea** have been **highly critical** of the IRA on the grounds that it made electric vehicles imported into the U.S. from their regions uncompetitive.
- Amitabh Kant, India's G20 Sherpa, has referred to the Act as "**the most protectionist in the world.**"
- According to Mr. Farrell, **one of the provisions of the Act stipulates** that at least 40% of all "critical minerals," including lithium, used to produce

electric batteries must come from countries that have a Free Trade Agreement (FTA) with the United States.

- As one of the few countries with both an FTA and significant reserves of critical minerals, Australia sees a great opportunity to export these minerals to the United States.
- However, he emphasized that Australia does not want to see all of its critical minerals being exported only to the U.S., therefore Australia is seeking to diversify its export markets, including to India.



Australia Looks to Widen Market For Lithium Export

- Australia is currently the largest exporter of lithium globally, with much of it going to China, which dominates the lithium-ion battery production market.
- However, Mr. Farrell pointed out that just as the U.S. and Europe are turning to Australia for minerals because China is the only other source, Australia is also seeking to diversify its export markets and explore opportunities with India.
- He suggested that **India could invest in Australia's electric vehicle industry**, which is currently developing, and benefit from the country's access to critical minerals.
- Access to critical minerals is increasingly an **area of cooperation between the two countries**.
- Recently, Australia and India have signed agreements to investigate the potential for Indian investment in two lithium and three cobalt prospecting projects in Australia.
- The Australian Prime Minister, Anthony Albanese recently visited India and it marked the first visit by an **Australian Prime Minister to India in six years**.
- This visit followed the **Economic Cooperation and Trade Agreement (ECTA) between Australia and India**, which came into effect in December 2022.
- Australia wants to have a diversity of investments in our critical minerals productions and in order to build secure chains for its allies and partners, like-minded democracies around the world.
- This agreement, is under an existing **'Critical Minerals Investment Partnership'** between the two countries.

Australian Exports

- Coal and iron ore exports from Australia to China and India have historically served as the foundation of its trading links with these countries.
- However, there is a movement towards giving priority to miners that produce the minerals required for battery manufacturing because Australia has committed to attaining net zero carbon emissions by 2050 and reducing the percentage of coal in energy generation from 70% to 18% by 2030.
- In order to develop superior lithium-ion batteries, an Indian firm and an Australian company, Sicona are collaborating to build a facility in Chennai.

India-Australia Economic Cooperation and Trade Agreement (ECTA)

- ECTA was signed on 2nd April, 2022; after Ratification and Exchange of Written Instruments, the Agreement has come into force on 29th December 2022.

The Ind-AusECTA covers the following major areas:

- Trade in Goods
- Trade in Services
- Rules of Origin
- Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) measures
- Customs Procedures and Trade Facilitation
- Trade Remedies
- Legal & institutional Issues
- Movement of Natural Persons

Conclusion

- The India-Australia agreement will further cement the already deep, close and strategic relations between the two countries and will significantly enhance bilateral trade in goods and services, create new employment opportunities, raise living standards, and improve the general welfare of the peoples of the two countries

Free and Open Indo-Pacific (FOIP)

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: International Relations

Prepp Mains Booster: Regional and global groupings and agreements involving India and/or affecting India's interests

Context:

- The Japanese Prime Minister, Fumio Kishida, visited India in March 2023 during which he engaged on global and bilateral issues, with an emphasis on cooperation between the G-7 and the G-20.
- The Japanese Prime Minister also revealed "Japan's New Plan for a **Free and Open Indo-Pacific**" (FOIP) and discussed ways to strengthen the "Japan-India Special Strategic and Global Partnership."

About Japan's New Plan for a Free and Open Indo-Pacific (FOIP)

- It emphasizes the importance of maintaining the rules-based order and respecting each other's geographical authority at a time when the international community is at a historical crossroads.
- Japan's FOIP policy believes that dynamism produced by combining two regions — Asia and Africa; and two oceans; Pacific and Indian, is a key to international security and wealth.
- It identifies, terrorism, the proliferation of weapons of mass destruction (WMD), natural disasters, and efforts to alter the status quo as major threats to the area.

About Indo-Pacific Region

- The Indo-Pacific region includes the Indian Ocean, the western and central Pacific Oceans, and the seas that link them. It is a geopolitical word that replaced the name "Asia-Pacific."
- It encompasses the Indian and Pacific Oceans and extends from Africa's east shore to America's west coast.
- Major Indo-Pacific players include QUAD (India, the United States, Australia, and Japan), ASEAN countries, China, and other maritime nations with key locations in the Indian and Pacific Oceans.

What are the pillars of cooperation?

- **Quality Infrastructure Investment:** Japan wishes to participate in economic development programs such as the G-20 Principles for "Quality Infrastructure Investment."
- **Addressing challenges in an Indo-Pacific manner:** Incorporating realistic and useful initiatives in a broad variety of fields, such as climate change, agricultural security, global health, and cybersecurity.

- **Multi-layered Connectivity:** Southeast Asia, South Asia, and the South Pacific/Pacific Island countries have been named as potential locations for additional such initiatives.
- Japan has made a new \$100 million commitment to the Japan-ASEAN Integration Fund; it will promote the Bay of Bengal-Northeast India industrial value chain concept in collaboration with India and Bangladesh, and the new Palau International Airport Terminal project (an archipelago in the western Pacific Ocean) has also begun.
- **Efforts for security:** Japan will assist other nations in improving the capabilities of their maritime law enforcement organizations.
- To achieve these goals, Japan will implement the "strategic use of Official Development Assistance (ODAs)," revise the Development Cooperation Charter, and establish guidelines for ODA for the next ten years, as well as introduce "offer-type" cooperation and a new framework for "private capital mobilization-type" grant aid.
- Japan also stated that Japan would "mobilize" more than \$75 billion in public and private money in the Indo-Pacific area for infrastructure development by 2030.

Impact on India

- A Japan Bank for International Cooperation (JBIC) worldwide survey has shown that India tops the list for future investment targets for mid- and long-term investment.
- Japan revealed intentions to invest 5 trillion yen in India over the next five years during his March visit. Japan is India's fifth-largest investor, with approximately 1,450 Japanese firms working in the nation today.
- The two nations are working in the fields of skill development and skilled worker mobility through Memorandums of Cooperation inked on Technical Intern Training Programme (TITP) and Specified Skilled Worker (SSW).
- Aside from ASEAN, South Asia, particularly Northeast India, has been the second major emphasis of Japanese strategy.
- It is especially encouraging to see steady progress in the flagship project, the high-speed railway, as well as efforts to achieve the JPY 5 trillion in public and private investment and financing from Japan to India announced by our two governments last year.

Challenges before the Indo-Pacific

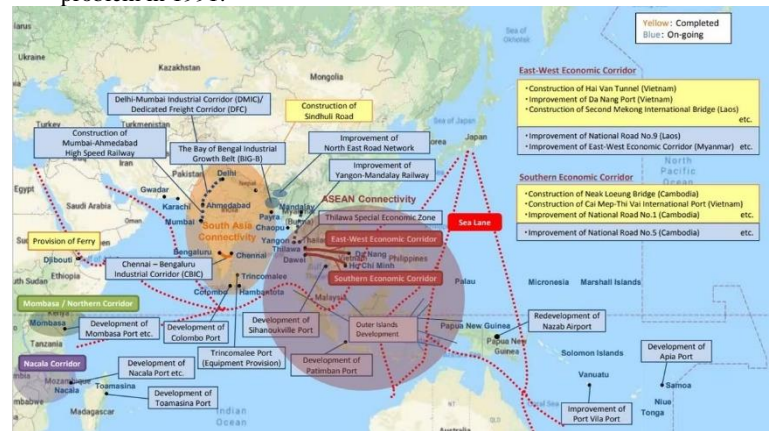
- Japan's new policy centers on the numerous problems confronting the Indo-Pacific region, including the Ukraine conflict, food security, and cyberspace, as well as issues such as guaranteeing freedom of the seas and connectivity, among others.
- The lack of a unified stance on "what the international order should be" — the conflict between Russia and Ukraine has pushed this problem to the forefront.
- There is a strong conviction that the FOIP will be able to work with and embrace varied viewpoints, as well as foster an environment of cooperation and collaboration rather than separation and conflict.
- Rule-making through dialogue should be promoted in order to achieve this cooperative environment.
- The notion that Japan, under the FOIP, should collaborate with other like-minded nations in the area has been stated, with India being billed as an "indispensible" partner.

India- Japan Relations

- **Historical:** Buddhism was brought to Japan in the sixth century, and trade between Japan and India is said to have started. Indian culture, as mediated through Buddhism, has had a significant influence on Japanese culture, and this is the cause of the Japanese people's feeling of affinity to India.
- **Economic:** Japan and India's economic connection has gradually grown and deepened in recent years. The volume of trade between the two nations has grown. In 2021, India was the 18th biggest trading partner for Japan, and Japan was the 13th largest trading partner for India. In addition, direct investment from Japan into India has grown, and Japan was the fifth biggest investor in India in FY2021. The Japanese private

sector's interest in India is growing, with approximately 1,439 Japanese firms having subsidiaries in India by 2021.

- **Defense Relations:** The India-Japan defense and security alliance has developed over time and is now an important pillar of bilateral relations. JIMEX, SHINYUU Maitri, and Dharma Guardian are joint maneuvers organized by India and Japan's armed forces. Both nations also took part in the Malabar drill alongside the United States. There are also different frameworks for security and defense dialogue between Japan and India, such as the "2+2" conference.
- **Diplomatic:** India and Japan started diplomatic ties in 1952. The year 2022 represents the 70th anniversary of the establishment of diplomatic relations between Japan and India. Several high-level exchanges occurred in the first decade after diplomatic relations were formed, including the Japanese Prime Minister's journey to India in 1957. Japan was one of the few nations that bailed India out of a balance-of-payments problem in 1991.



A Long View Of The South Asian Drama

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: International Relations

Prepp Mains Booster: India and its neighborhood- relations, Bilateral, regional and global groupings and agreements involving India and/or affecting India

Context:

- The author, Ramanathan Kumar, a former special secretary of RAW has discussed India's coexistence with its neighbors in South Asia in the article titled "A Long View Of The South Asian Drama" published in The Hindu on 6th April 2023.
- The shared cultural, regional and historical ties between India and its South Asian neighbors were key towards establishing a model of peaceful coexistence among the states in the region.

What is the situation in South Asia?

- South Asia has been affected by rising uncertainty with the region affected by political, economic and security crises.
- **Pakistan:** The country has been impacted by political unrest and economic instability.
- **Nepal:** Successive elections with unclear results leading to hung parliaments have contributed to the political uncertainty in the country.
- **Bangladesh:** The Opposition in the country has been weakened and forced to adopt agitative measures.
- **Maldives:** The Presidential contest in the county reflected a conflict between democracy and authoritarianism which could have political implications for the island nation and other South Asian nations.
- **Sri Lanka:** A debt crisis and the political uncertainty following the ousting of Gotbaya Rajapaksa have severely impacted the island nation.



India's unique position

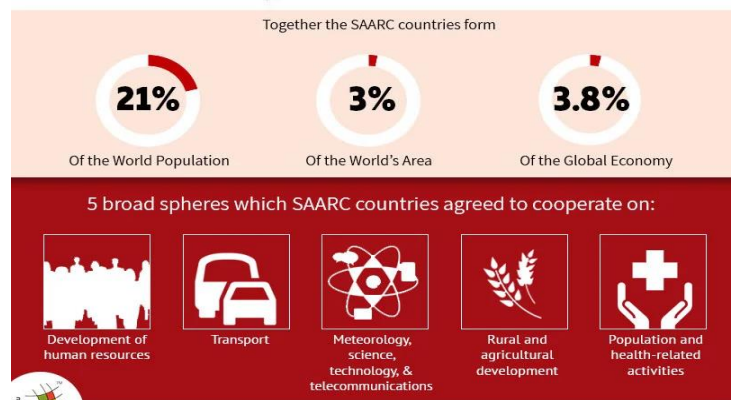
- K Subrahmanyam, an Indian strategic affairs expert published a paper in March 1987 titled "India's Relations with her Neighbours" which was published in Strategic Analysis, the journal of the Institute for Defence Studies and Analyses (IDSA).
- Subrahmanyam had stated that India's relations with its neighbours were influenced by the country's foundational values.
- The South Asian region constituted an integrated civilisational area which was bound by **shared religions, languages, cultural relations and blood ties**.
- The three larger nations - India, Pakistan and Bangladesh - were in addition to the above factors also linked by their shared histories.
- In spite of these shared characteristics, India had evolved a unique model that stood out among the countries of the region.
- Values such as **democracy, secularism, federalism and linguistic autonomy** were not adopted as a matter of choice but as a necessity in order to maintain the unity and integrity of the country.
- These values were adopted by India not just because they were popular among the developed Western nations but because they were internalized and absorbed during the country's freedom struggle.
- Although India has had a long history of absorbing foreign cultures and traditions, democracy could not be considered an import similar to Islam and Christianity.
- **India's ability to absorb, internalize, modify and transform** but still retain its personality has enabled India to endure despite the numerous challenges it has faced over the years.
- Democratic values were adopted in India eclectically around the same time that they emerged in Europe in the 19th century.
- As a result, institutions like **local government, free press, trade unions, liberal democracy, multi-party politics, adult suffrage, secularism and the state as a tool for development** emerged as major constituents in the freedom struggle.
- India's capacity to evolve had made it the envy of the developing world on account of its **representative model of government, apolitical armed forces and critical and free press**.

India's Unity

- However, some of India's neighbours and Western scholars have dismissed the idea of Indian unity and integrity.
- They have claimed that India was never integrated until the British unified it under an administrative structure.
- However, these critics have not considered the fact that a few centuries ago there were no nation-states anywhere in the world; only tribes, principalities, duchies, kingdoms, and empires.
- Even in that period, there was recognition of India as a unified whole in terms of its culture, civilization and administrative structure.
- European rulers like the British queen granted charters to Indian trade companies and the ocean surrounding the sub-continent was named the Indian Ocean.
- The concept of "**Aah Sethu Himachalam**" which meant Kanyakumari to the Himalayas and the idea of the **Sarva Bhauma** or Lord of the Earth who had performed **Aswamedha**, the Ramayana and the Mahabharata, the Ashokan edicts or the mutts of Adi Sankara were proof that India's

distinct cultural and civilisational unity formed the basis of its nationhood.

- These shared memories had bound the diverse people of the land as citizens despite their differences.
- **A nation's unity and integrity had to be based on a social contract among its people which could be sustained through representative structures.**
- **Nationhood** was a secular political concept which was based on territoriality and a vision of an ideal society.
- Social mores and values obtained centuries ago which were confused with religious ideologies could not form the basis for a modern **nation-state**.
- India and its neighbors Pakistan and Bangladesh faced a struggle between those who believed in building social, political and economic structures and processes based on continuously evolving knowledge and others who opposed change and argued that societal structures and processes should be based on traditions, scriptures and belief systems.
- This conflict between an integrated and universalised one-world society and a fragmented society was based on a fear and inability to cope with the evolving world.



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Way Forward for Peaceful Coexistence

- In order to ensure the peaceful coexistence of sub-continent nations, India will have to grow economically and technologically over the long term.
- This would cause India's neighbors to adjust to the new Indian reality and stop involving China and other regional forces as countervailing factors to India's growing influence in the region.
- India should pursue its military development in order to insulate itself from the regional turbulence and coercive diplomatic tactics employed by friendly and rival nations.
- India should evolve its diplomatic framework in order to **focus less on its South Asian countries and more on China, Russia, the industrialized West, Southeast Asia, West Asia and Africa.**
- India should adopt a low-key role in **SAARC** until a time when other members of the organization recognise how India can contribute to their domestic nation-building and development.
- Reciprocity was a crucial factor in diplomatic relations, especially on issues such as riparian resource sharing. Ideally, India should display its generosity when approached by other nations after they recognise India's regional role.

Conclusion

- The polarized nature of international relations has highlighted the link between India's foundational status and the **great power status** the country has aspired to achieve.
- India's ability to adapt and evolve has given it an advantage on the path to **regional leadership.**

SAARC

- The **South Asian Association for Regional Coordination or SAARC** was established in 1985 in Dhaka.
- **Members:** India, Bangladesh, Pakistan, Afghanistan, Nepal, Sri Lanka, Maldives and Bhutan.
- **Observers:** Iran, Japan, Mauritius, Myanmar, The Republic of Korea, The European Union, Australia, China, and The United States of America.
- SAARC is headquartered in Kathmandu, Nepal.
- The organization represents 3% of the total global area, 3.8% of the economy and 21% of the population.
- **Principles:**
 - Respect for sovereignty, equality, territorial integrity, non-interference and independence,
 - Cooperation that complements existing bilateral and multilateral structures of cooperation
- **Objective:** Work towards a common goal of social, cultural, and economic growth for all in the South Asia region
- **Structure:**
 - **Council:** The apex policy-making body consisting of heads of state which meets on an annual basis.
 - **Council of Ministers:** It consists of the foreign ministers of the member states and meets twice a year.
 - **Secretariat:** It is responsible for coordinating and monitoring the activities of the body and acting as a link between SAARC and other international organizations
 - Other Specialized bodies include the SAARC Development Fund, the South Asian Regional Standards Association, and the SAARC Arbitration Council.

A New Troika For India's Northeast Region



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

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

Context:

- In this article, written by Rajiv Bhatia, a Distinguished Fellow, Gateway House, and a former Ambassador to Myanmar, has discussed that the region that includes **India's eight northeastern states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim)** is changing dramatically.
- It has overcome significant security issues and is currently moving toward economic development.

The Troika

- The third India-Japan Intellectual Dialogue held recently, organized by the Asian Confluence (ASCON) in Agartala, Tripura, was an ideal opportunity to analyze the developing thinking of academics and policymakers.
- It demonstrated that the present decade may usher in game-changing shifts in the northeast, bringing the troika of Bangladesh, India, and Japan closer.
- The trio of Bangladesh, India, and Japan may influence the objective of linking a major portion of South Asia with Southeast Asia by using the northeast as a focal point.
- Political developments in the area, as well as a vast web of ties with neighboring Bangladesh and Japan, have positioned India as a vital development partner.



What are the vision and opportunities?

- **Matarbari Deep Sea Port (DSP):** One of the most major projects is the building of the Matarbari Deep Sea Port (DSP) on Bangladesh's southeastern coast. It is being built with Japanese aid and is set to open in 2027. According to a recent ASCON research, this port might be a "game changer."
 - The port must serve the demands of Bangladesh and India's northeast.
 - The long-term goal is for Bangladesh and the northeast to become a regional center and vital industrial corridor, serving a population of 220 million.
- Japan's Ambassador to India, emphasized during the conference that while enhanced road and rail connectivity is necessary, it is insufficient without the development of regional industrial value chains.
 - The fast industrialization in industries where the northeast has a competitive edge becomes important.
 - This strategy is sound since it assures that the new connection links are fully utilized and productive.
- Roads and ports must be accompanied with employment opportunities, which can only be provided by new industrial businesses established with national and foreign investment.
- A collaborative focus on complete connectivity and increasing industrialization in Bangladesh and the northeast is expected to be a priority.
- The northeast is endowed with abundant natural resources. Its strategic location, with borders with Nepal, Bhutan, China, Bangladesh, and Myanmar, is advantageous.

- Creating value chains and producing products should include varied industries such as agro-processing, man-made fibers, handicrafts, assembly of two-wheelers and maybe mobile phones, and medicines.
- With its high level of education, the populace already excels in the services sector, attracting the interest of potential investors.

Importance of North-Eastern States

- **Strategic Location:** The North Eastern Region of India is a landlocked region with no sea access. The existence of the Siliguri Corridor, known as the chicken's neck in India, complicates matters.
- **Links with Southeast Asia:** The North Eastern Region is physically next to Myanmar, which is part of South-East Asia. As a result, it has the potential to serve as India's "Gateway to Southeast Asia."
- **Electricity Resources:** Due to the presence of the Brahmaputra and its tributaries, the North-Eastern area offers enormous potential for hydroelectric electricity. It has also been a source of crude oil and natural gas in the form of the Digboi oil fields.
- **Carbon Sink:** As part of the Paris Summit, India has pledged to develop an additional 2.5 to 3 billion tonnes of carbon sink each year through its Nationally Determined Contributions. With its vast forest cover, North-Eastern India can play a significant part in such an endeavor.
- **Agricultural Resources:** The North Eastern area is endowed with natural resources that are critical to the country's economic progress.
- **Ecotourism and the Environment:** Because of its lush green terrain, distinctive tribal culture, fresh air, agreeable climate, and different topography, the North Eastern area has the potential to be a tourist hotspot.

Challenges and Recommendations

- Japan as a sole investor in the northeast is unworkable. Indian businesses must also invest. India must ease limitations on the flow of investment from Bangladesh. The three administrations should also strengthen economic ties.
- When discussing regional cooperation and integration, it appears that little attention is paid to the self-defeating Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).
 - This must alter if the grouping is to achieve its goal of forming the Bay of Bengal Community (BOBC).
- The objective of linking a substantial portion of South Asia with Southeast Asia necessitates an astute pilot which might come from the trio of Bangladesh, India, and Japan (BIJ).
 - A BIJ Forum should be established initially at the level of Foreign Ministers, which will be welcomed in the northeast.

Conclusion

There is the need for a new troika consisting of a strong political leadership, a robust economic system, and efficient security measures to address the challenges faced by India's Northeast region. These elements must work together to foster development, ensure security, and strengthen ties between the region and the rest of the country. It emphasizes the importance of investing in infrastructure, improving connectivity, and promoting local entrepreneurship and innovation to unlock the region's potential.

The Demand For Scottish Independence

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Events of International importance

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests

Context:

- Recently, British Prime Minister Rishi Sunak denied a request from Humza Yousaf, the new First Minister of Scotland and leader of the ruling Scottish National Party (SNP), to conduct a second referendum on Scotland's independence from the United Kingdom.
 - Mr. Yousaf took over the party's leadership on March 28 after an intense intra-party battle sparked by the resignation of Nicola Sturgeon, the

powerful leader who headed the party's independence drive for nearly a decade.

Background

- Scotland is a country that is a part of the United Kingdom.
- The first referendum on Scottish independence from the United Kingdom was conducted in Scotland on September 18, 2014.
- The proposal was defeated by a large plurality of voters, with 55% voting against independence.
- Following the vote, more powers, especially in taxation, were devolved to the Scottish Parliament through cross-party discussions in the Smith Commission.
- Humza Yousaf of the Scottish National Party has held the position of First Minister since March 29, 2023, following the departure of Nicola Sturgeon.



Since when Scotland is demanding independence?

- The independent Kingdom of Scotland was established in the ninth century and went on to battle wars to maintain its independence from the Kingdom of England.
- In 1603, the two countries formed a personal union and were governed by the same monarchs.
- Due to economic and political weaknesses on both sides, the British and Scottish Parliaments enacted the Acts of unity in 1707, establishing a political unity under the name of Great Britain.
- While Scotland was able to keep some decision-making powers, it did not receive equitable participation in the united Parliament, and long-standing cultural and political differences persisted.
- Demands for self-government quickly sprouted, ultimately leading to two referendums in 1979 and 1997, which resulted in the creation of a new devolved Parliament of Scotland in 1999.
- This Parliament was granted the authority to create legislation on decentralized problems such as health, transportation, and education, while the power to act on defense, foreign policy, trade, immigration, and money was retained.
- The last election on independence was held in 2014, with 55% of Scots voting to remain in the three-century-old union and 45% voting to leave.
- A significant percentage of Scots see separation from the United Kingdom as a matter of self-determination and identity. Scotland makes for 8% of Britain's people and economy, as well as one-third of its landmass.

Formation of Scottish National Party

- The Scottish National Party was founded in 1934 by the merger of two devolutionist organizations, the National Party of Scotland and the Scottish Party.
- The SNP gained its first position in the British Parliament, based in Westminster, in a by-election, but the MP declined to accept his seat.
- The party then started distributing petitions for the establishment of a devolved Parliament and rose to national notoriety in 1967, when Winnie Ewing defeated the Labour Party for the Hamilton position.

Role of Scottish National Party

- It was in the 1970s, following the discovery of oil in the North Sea, that the SNP conducted a popular campaign in line with its core ideology of independence. In the 1970s, the party was successful in electing 11 MPs to the British Parliament.
- In the 2007 elections to Holyrood, as the Scottish Parliament is called, the SNP received more than 30% of the vote and formed a minority administration led by Alex Salmond.
- Due to disputes with other parties, the SNP had to abandon its intended Independence Referendum Bill.
- Mr. Salmond led the Party to a resounding victory in 2011, forming the first majority administration in the history of the Scottish Parliament.

Demand for independence

- The SNP administration believes that people in Scotland should be able to vote on whether or not the nation should be independent.
- To allay fears about Scotland's future after independence, the SNP has issued White Papers outlining its strategy for "building a new Scotland."
- It presently receives a bloc subsidy from the British government for a significant portion of its yearly expenditure, which it intends to replace with oil revenues from the North Sea once it achieves freedom.
- It claims that rather than investing North Sea oil earnings in future generations, the UK is using them to finance current expenditures, undermining Scots' interests.
- The SNP also intends to rejoin the EU, increase its commerce within the union, and reap other benefits and also intends to retain the British pound Sterling as its money following independence.
- It also claims that Scotland is distinct from the United Kingdom in that its voting system is already fairer and more proportionally representative than the United Kingdom's.
- It claims to stand for various things, including more open immigration policies, a quicker drive for green transition, free university education and elderly care, higher-income taxes, and LGBTQ inclusion.
- It also thinks that the United Kingdom will make choices in the future, such as Brexit, that will harm Scottish interests.

What is the UK's stand?

- The British government thinks that the SNP has failed to provide a clear image of how pensions and healthcare would function in an independent Scotland.
- It has also cautioned Scotland that rejoining the EU would result in the establishment of a hard boundary between Scotland and the rest of the United Kingdom.
- Prior to the 2014 referendum, the Economic Affairs Committee of Westminster warned that keeping sterling as Scotland's currency would be difficult because the Monetary Policy Committee of the Bank of England, which sets policy for the United Kingdom, could not consider the interests of a separate country.
- It also stated that Scotland would find it challenging to assume its part of the United Kingdom's public debt, which is in the billions of pounds.
- Furthermore, the decommissioning of North Sea Oil would have fiscal and commerce repercussions for the United Kingdom.

Way Forward

- Following Mr. Johnson's denial of her demand for British assent, Ms. Sturgeon intended to conduct a "consultative plebiscite" — a non-binding poll in Scotland without the approval of Westminster in 2023.
- However, in November 2022, the United Kingdom's highest judge declared that such a referendum could not take place.
- Refusing to abandon her party's drive for independence, Ms. Sturgeon announced a new plan in which her party will use the next British general election or the Scottish Parliamentary election as a "de facto referendum" on independence, with the SNP taking a stance solely on the issue of independence.
- Following her surprise departure in February, Mr. Yousaf is now faced with the challenging task of realizing the party's core vision of freedom.

He has stated that he is not committed to the concept of a "de facto referendum."

- His first goal is to increase support for secession among Scots.
- According to recent polls, support for a "yes" vote on independence has fallen to 39% in the nation, which is lower than it was during the 2014 election.

Finland's Journey To Join NATO

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: NATO

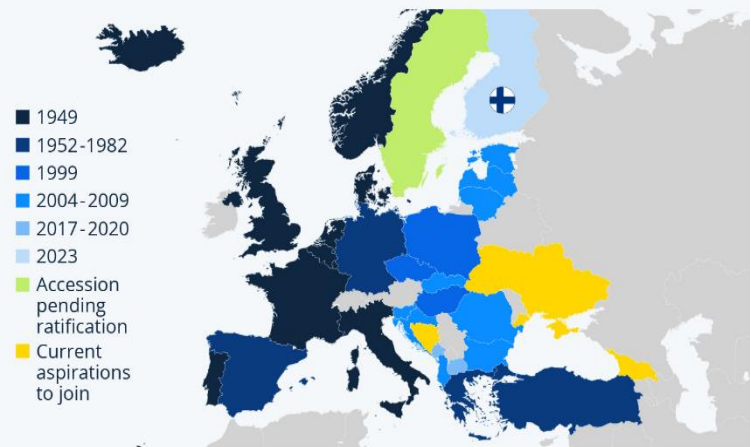
Prepp Mains Booster: Bilateral, regional and global groupings and agreements; Effect of policies and politics of developed and developing countries on India's interests

Context:

- Recently, Finland became the 31st country to join the North Atlantic Treaty Organization (NATO).
- The decision to join the security alliance was prompted by Russia's invasion of Ukraine last year, Finland's historical relationship with Moscow, and the changing character of world geopolitics in the face of waning Russian power.

Finland Becomes 31st Member of NATO

European countries by year they joined NATO



Map excludes the United States and Canada, both founding members of NATO.

What is the North Atlantic Treaty?

- The North Atlantic Treaty, also known as the Washington Treaty, says that the parties to the treaty aim to support stability and well-being in the North Atlantic region.
- Under the treaty, parties have agreed to adhere to the goals and principles of the United Nations Charter and expressed their desire for peaceful coexistence with all people and nations.
- Members are committed to working together to safeguard peace and security and to implement the principle of common defence.
- Article 10 of the treaty allows a new member to join the treaty with the full consent of the current members.
- The Treaty led to the establishment of the North Atlantic Treaty Organisation (NATO) which was the world's largest security alliance with 31 members.
- **Members:** Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, United States, Greece, Turkey, Germany, Spain, the Czech Republic, Hungary, Poland, Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia, Albania, Croatia, Montenegro, and North Macedonia.

- The Organization is headquartered in Brussels while the Allied Command is headquartered at Mons in Belgium.

Why has Finland joined NATO?

- Finland, which was a neighbour of Russia, had elected to join NATO in May 2022 over concerns about Russia's actions in Ukraine.
- Finland had sought protection under the collective security mandate of the security alliance as it feared a repeat of the Soviet invasion in 1939 that led to the Winter War which saw the country lose 10% of its territory to the invaders.
- Finland and Sweden have expressed apprehension over Russia's attempts to establish a sphere of influence and security around it.
- Sweden had been concerned over reports of the presence of Russian submarines near the Stockholm archipelago.

Impact of NATO Membership

- Finland has improved its security, but it is losing major trade and tourism earnings from Russia, and its role as a reassuring presence in the Baltic Sea and throughout Europe is under danger.
- The addition of Finland to NATO increases its position to put weapons closer to Russia.
- However, Russia regards this as a grave historical blunder that might worsen the Ukraine war and has stated that it will bolster its military power in the west and north west.

What is Russia's Response?

- Dmitry Peskov, a Kremlin spokesperson, replied to Finland's NATO membership by saying, "this forces us to take countermeasures to ensure our own tactical and strategic security."
- The Russian Foreign Ministry stated that while it will respond with "military-technical measures," the nature of its operations will be determined by the parameters under which Finland joins NATO.
- The Ministry described Finland's now-defunct non-alignment policy as a "wise decision," and stated that the country had "lost its independence."
- It said unequivocally that this move will have a negative effect on the bilateral relations between Russia and Finland.

How has Finland's security strategy developed as a result of its neighbour?

- Prior to the First Soviet-Finnish War, Russia tried to build a buffer zone along its western border in order to defend itself against foreign invasions via Finland.
- The First Soviet-Finnish War was caused by lingering tensions from the Russian Revolution and the Finnish Civil War in 1917 and 1918, as well as unsolved concerns from the Treaty of Dorpat in 1920.
- The Second Soviet-Finnish War, which lasted from 1941 to 1944, concluded in Finland's defeat. Finland lost lands to the Soviet Union and was forced to pay war reparations.
- This, along with the process of independence in 1917, the civil war between 1918 and 1919, and the Lapland War in 1944, had an influence on the collective consciousness of the Finns.
- This compelled Finland to adopt a realistic security strategy that was flexible enough to reconcile its sovereignty with the necessity for military cooperation with the West. It was careful not to engage in overt acts that may be seen as a security threat by Moscow.
- Finland made concessions to the Soviet Union, one of which being the Finno-Soviet Treaty of 1948.
- This contract guaranteed that Finland would stay neutral and would not accept any foreign troops on its soil without Moscow's agreement.
- While this helped Finland increase commerce with the Soviet Union, it also made Finland exposed to Soviet economic and political overtures.
- After the second world war, Paasikivi's position formed and began to transform into what would later become Finland's foreign policy stance. Paasikivi's line was named after Juho Kusti Paasikivi, the president of Finland from 1946 and 1956.
- It was built on the notion of peaceful cohabitation with the Soviet Union, with neutrality as its cornerstone. It aided Finland in navigating

challenging international relations during the traumatic period of World War II.

Why did the security policy change?

- Finland's approach to security strategy was affected by its Cold War experience.
- Following the disintegration of the Soviet Union in 1991, it wanted to strengthen ties with Russia while simultaneously pursuing deeper integration with Europe.
- The country has been an active member in European security initiatives such as the Common Security and Defence Policy (CSDP) and the Nordic Defence Cooperation.
- At the same time, it has been able to preserve tight commercial connections with Russia. However, there were tensions between Finland and Russia as a result of both nations' shifting domestic politics.
- For example, Nikita Khrushchev was prepared to engage with Finland and allowed for increasing commerce and cultural interchange between the two nations, despite Finland siding with the West in the 1950s when the Soviet Union called for a boycott of the 1956 Summer Olympics in Australia.

What is the way forward?

- NATO and Russia should look for methods to break the cycle of enacting "measures" and imposing "countermeasures."
- During the previous decade, a typical example of a security dilemma has played out, in which Russia and the West have increased their security while simultaneously creating a more dangerous environment.
- Given the growing tensions, both Russia and NATO should be mindful of one other.
- Shortly after the alliance welcomed its newest member, the Russian government expressed worry over "potential weapons systems and infrastructure that could be deployed right next to its borders."
- It is fair to suppose that neither Finland nor Russia would want their relations to deteriorate.
- The newly elected center-right administration in Finland should not overstate possible Russian threats, but instead engage in bilateral discussion to better understand the other's security concerns.
- At least some NATO countries should be prepared to use diplomatic instruments to lower the temperatures.

Conclusion

The continuance of the Ukraine incursion, a falling Russian power, and now a verified security umbrella by NATO creates the impression that Finland's security concerns are mainly alleviated. The amount to which the Finns and NATO nations cooperate will determine Russia's activities, but it appears that Moscow, led by President Vladimir Putin, may desire to escalate further by strengthening troop presence along the Russo-Finnish border.

Why Are Sudan's Army And Paramilitary Forces Fighting Each Other?

Priority: **Medium**



Primary Source: Indian Express

Prepp Prelims Booster:

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

Context:

- Recently, the UN Envoy to Sudan revealed that more than 185 people have been killed and thousands wounded in Khartoum following clashes between the military and the RSF.
- The clash between the military and the RSF in the aftermath of the 2021 coup concerned differences in how the RSF would be integrated into the army.
- The UN envoy to Sudan, Volker Perthes has claimed that 185 people, including an Indian national, have been killed and around 1850 people

injured in fighting between the military and a paramilitary force in Khartoum.

- The clashes were a result of tensions between the **Rapid Support Forces (RSF)**, a paramilitary group headed by Mohamed Hamdan Dagalo a.k.a Hemedti and the military headed by Lt.Gen Abdel Fattah al-Burhan.
- Heavy artillery firing has been reported in Khartoum and the neighbouring regions of Omdurman and Bahri.
- The warring parties were urged to end hostilities immediately by the USA, the UK, the EU, China, Russia, Saudi Arabia, and the UAE. The Secretary General of the UN had also spoken to both parties asking them to end the violence.
- The Secretary of State of the USA had stated that the two Generals should actively adopt measures to control violence and that negotiations supporting the democratic aspirations of the Sudanese people were the way forward.

What is the origin of the conflict?

- In April 2019, Omar al-Bashar, the authoritarian President of Sudan was overthrown by military generals following a country-wide uprising against his rule.
- However, civilian protests and demonstrations continued demanding democratic elections and the establishment of a civilian government.
- Consequently, an agreement was reached between the protestors and the military under which a **Sovereignty Council** was constituted.
- The Sovereignty Council was a power-sharing body of military officers and civilians that would lead the country to democratic elections to be held in 2023 with Abdalla Hamdok appointed Prime Minister for the transition period.
- However, the arrangement did not last long as the military overthrew Hamdok's government and instituted General Burhan as the country's de-facto leader.
- General Dagalo of the RSF, who partnered Burhan in the coup was appointed Vice-President of the ruling council and second-in-command of the country.
- General Burhan has announced that the military would continue to hold power in Sudan until elections were held in 2023.



Why have the RSF and the military clashed?

- Relations between the Rapid Support Forces and the military who jointly organized the coup broke down soon after the military came into power.
- The two generals have disagreed over the country's proposed transition to civilian rule.
- They have also clashed over the reintegration of the RSF into the army and the authority which would oversee the reintegration process.
- Dagalo has recommended that the integration be delayed for ten years but the army has stated that it will be completed in two years.
- Over the last few weeks, the RSF has been redeployed throughout Sudan, a move which the army has interpreted as a provocation.
- Rising tensions between the two forces eventually turned into violent clashes on Sunday.

- The 10,000-strong RSF was formed in 2013 and has been accused of human rights abuses multiple times including the massacre of more than 120 protesters in 2019.

What could be the consequences of the violence?

- The clash between the two armed forces could have made the transition to a democracy much more difficult in the country, despite the repeated pro-democracy protests.
- The protests against the Bashar government were due to the economic crisis in which the value of the currency dropped and shortages of bread and fuel were experienced.
- Experts have expressed concerns that the clash could transform into a larger conflict which could put the country at risk.
- Sudan's economy has been impacted by **hyperinflation and growing foreign debt**.
- Billions of dollars worth of international aid and debt relief have been frozen since the coup that overthrew Hamdok's democratic government which had implemented IMF norms for debt relief and foreign financing.
- A coalition of civilian groups that have been campaigning for the restoration of democracy in Sudan has stated that the conflict was a war that no single party could win and would lead to widescale destruction.



- Sudan is a country located in North-Eastern Africa with its capital at Khartoum.
- It was the third-largest country in Africa in terms of area and was home to a population of nearly 47 million.
- Sudan was bordered by Egypt in the north, Libya in the northeast, Chad in the west, the Central African Republic in the southwest, South Sudan in the south, Ethiopia in the southeast and Eritrea and the Red Sea in the east.
- In 2011, South Sudan gained independence from Sudan.
- Sudan had a primarily rural and subsistence-level economy.
- **Climate:** Tropical climate with heavy rainfall, high humidity and a dry season.
- Dust storms frequently occur in the country whose northeastern region consists of the Nubian desert.

- Sudan's mineral deposits consisted of gold, chromite, asbestos, uranium, zinc and copper were found.
- **Water bodies:** The Blue Nile and White Nile merge into the Nile in Khartoum and Lake Nubia is located on the border between Egypt and Sudan.
- Desertification, deforestation, soil erosion, excessive agriculture, water scarcity and poaching were among the environmental crises faced by Sudan.
- Ethnic groups of Sudan include the Beja, Fur, Nubians, and Mapan.

The Wagner Group's Actions In Africa



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Wagner Group

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests

Context:

- Recently, after the outbreak of combat in Sudan's capital Khartoum, concerns have been raised about the involvement of the **Wagner group**, which has been engaged in African nations for years.

What is the Wagner Group?

- The Wagner group is a Russian paramilitary organization led by Yevgeny Prigozhin.
- Though it has purportedly been involved in counter-militancy operations in Africa, its role is said to have a broader reach that includes political, economic, and military aspects.
- There have also been reports of the organization sending guns and training regional forces to combat Islamist threats.
- Despite its engagement in the Russia-Ukraine war, the Wagner group's presence in Africa has maintained.
- The group's efforts have influenced Africa's democratic process by siding with local actors in a civil war situation.
- Concerns have been raised in the West about human rights breaches and civilian abuses associated with the Wagner group's presence in Africa.



Objective of the group

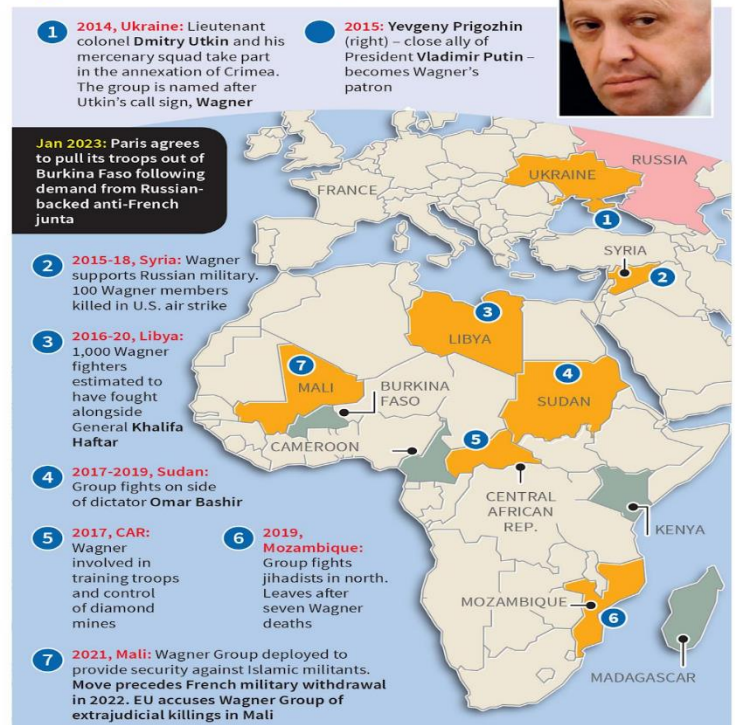
- **Access natural resources:** The group's main purpose is to acquire access to natural resources. Numerous publications have mentioned Russia's goals in gaining access to Africa's vast natural riches.
- One of the techniques for achieving this goal for the country is the presence and movements of the Wagner group.
- Russia views the Wagner group as a diplomatic tool in Africa. The Russian policy in Africa has a low economic cost but high political gains.
- In the UN resolution denouncing Moscow's actions in Ukraine, 15 African nations abstained. Furthermore, Eritrea and Mali united with Russia in voting against the measure.
- **Mineral Reserves:** Russia's access to African mineral reserves is seen to be providing critical financial assistance for the continuation of the

Ukrainian war. Strong relations with African countries constitute a pipeline of influence for Russia's assault in Ukraine.

Mercenaries in Africa

The Wagner group, a Russian paramilitary organisation, has been involved in multiple counter-military operations in Africa. While legally, the group is not a Russia-based private military company, it works closely with the Russian security apparatus

■ Military and political engagement ■ Economic and political



SOURCES: BROOKINGS, THE GREY ZONE | PICTURES: FREE RUSSIA FORUM, GETTY IMAGES

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In which African Countries does the Wagner Group operate?

- **Sudan:** In Sudan, deployments began in 2017 during the reign of former President Omar al-Bashir. The group's links with Sudan intended to protect mineral riches, particularly gold mines, and thereby supported Bashir's administration against international criticism. It also had a direct part in putting down the Sudanese revolt that ousted Bashir's administration in 2019.
- **Central African Republic:** The organization landed in the Central African Republic in 2018 to protect President Faustin-Archange Touadera from several rebel factions. It has taught the country's army and local security agencies to combat serious Islamic crimes. In exchange, the Wagner Group acquired diamond and gold mining licenses. The government in Bangui (Capital of the Central African Republic) granted (the organization) subsidiary unrestricted logging rights across 187,000 hectares (722 square miles).
- **Mozambique:** Mozambique's government welcomed the Wagner Group in 2019 following the escalation of the al-Shabab insurgency in the country's northern area. The organization immediately dispatched 160 fighters in the combat zone, but some of them were slain by militants within weeks. According to the Brookings Institution, the Wagner Group failed to comprehend the local insurgency and the indigenous military forces with whom it had to collaborate and was forced to withdraw its troops.
- **Mali:** It is believed that the pro-Russian, anti-Western military administration that gained control after the 2021 coup has recruited hundreds of Wagner mercenaries to combat radicalism in the Sahel area. The gang, which has access to Mali's uranium, diamond, and gold mines as potential payoffs, has been accused of committing war crimes in the country, murdering hundreds of innocent civilians in a series of attacks.
- **Burkina Faso:** The Wagner Group is presently negotiating a new security contract with the military government of Burkina Faso, which

recently ordered French forces to depart after a decade of fighting Islamic terrorists.

- **Libya:** Wagner forces have been stationed in Libya since 2019 in support of warlord Khalifa Hifter. In exchange for offering advice, help, and training to local forces, the organization has been granted authorization to mine in residential areas.

Implications for Africa

- Increased reliance on Wagner mercenaries means increased bloodshed, intimidation, and uncertainty for African countries.
- Private military companies, "particularly the Wagner Group," were accused of harassing and sexually assaulting civilians.
- The mercenaries have been accused of unlawful executions in the Central African Republic and Mali by France, the United States, and international human rights organizations.
- The organization believes that democratic governance in Africa is under threat. The breakdown of relations between the West and Sahel nations, particularly Mali and Burkina Faso, allowed Russia to present itself as an alternative.
- Over time, Russia acquired power in Africa through unconditional support.
- However, growing ties between African governments and Russian mercenaries constitute a huge danger to democratic norms.
- Increasing patterns among African countries requesting Russian mercenary support for escalating security concerns signal an increase in authoritarian footprints throughout the continent.

SCO Meet Highlights China's Growing Role In Inner Asia, India's Challenge, Shanghai Paradox

Priority: **Medium**



Primary Source: Indian Express

Prepp Prelims Booster: SCO

Prepp Mains Booster: India and its neighborhood- relations, Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests, Important International institutions, agencies and fora- their structure, mandate.

Context:

- The author, C Raja Mohan, has discussed the SCO and the challenges associated with the regional organization in the article titled "India and the SCO Paradox" published in the Indian Express on 26th April 2023.
- The growing prominence of China in the forum and the region was a major geopolitical concern for India.

What is the Shanghai Paradox?

- The SCO has evolved into a more attractive opportunity to a number of Eurasian nations but at the same time, it was plagued by internal challenges that had adversely impacted its strategic coherence. This was referred to as the **Shanghai Paradox**.
- The **primary objective of the SCO was to promote peace in Eurasia, but the organisation's ability to manage the numerous inter-state and intra-state conflicts among the member nations has now been questioned**.
- The SCO's position has been further complicated by the Russian invasion of Ukraine and the aftermath which has raised doubts on Russian primacy in its neighborhood.
- This has also created an opportunity for China to assert itself as the dominant force in Eurasia.

Shanghai Cooperation Organisation

- The **Shanghai Cooperation Organization or Shanghai Pact** is a transcontinental, political, economic and security alliance.
- The SCO Charter came into effect from 2003.

Objective:

- Maintain peace in Eurasia
- Trade, cultural and humanitarian cooperation

- Combating threats such as terrorism, extremism and separatism.
- **Members:** China, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan, Uzbekistan.
- **Observers:** Iran, Afghanistan, Belarus, Mongolia
- **Dialogue Partners:** Armenia, Azerbaijan, Cambodia, Nepal, Sri Lanka and Turkey
- **Heads of State Council** is the highest decision-making body. It meets annually.
- **SCO Secretariat in Beijing and RATS Executive Committee** are the two permanent SCO bodies

To know more about the SCO, click [here](#).

How has the SCO performed?

- In terms of the demand for membership, the SCO has been a success with Zhou Bo, a retired colonel of the Chinese PLA equating the membership applications at the SCO with the large number of applications for NATO membership.
- Central European nations like Ukraine have expressed an interest in following Finland and Sweden as members of NATO over concerns about Russian aggression.
- Similarly, nations in India's neighborhood had applied to join the 8-member SCO - China, Russia, India, Pakistan, Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, and Kyrgyzstan.
- Iran, which was an observer, was set to join the SCO as a member at the next annual summit while the other three observers Afghanistan, Belarus and Mongolia had expressed an interest in full membership.
- The SCO's dialogue partners included Azerbaijan, Armenia, Egypt, Qatar, Turkey, Saudi Arabia, the United Arab Emirates, Maldives, Nepal, and Sri Lanka, all of which were important to India.
- Zhou Bo has described the SCO as more inclusive than NATO.
- Some experts have described Turkey's willingness to join the SCO despite being a NATO member as an indication of how attractive an opportunity SCO membership was amid the rise of non-Western security institutions.



- Recently, in an interview with French broadcaster LCI, Ambassador Lu suggested that countries that emerged after the collapse of the Soviet Union do not have effective status under international law because there is no international agreement confirming their status as sovereign nations.
- The Ambassador's comments appeared to refer not only to Ukraine, which has been invaded by Russia since February 2022, but also to all former Soviet republics that gained independence after the dissolution of the Soviet Union in 1991.
- The Union of Soviet Socialist Republics (USSR) had a total of 15 republics/blocks before its disintegration in 1991.
- The countries emerged after collapse of USSR were Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

What are the challenges faced by the SCO?

- The major challenge faced by the SCO was the **internal conflicts among its members such as the Sino-Indian, Indo-Pakistan, and Kyrgyzstan-Tajikistan conflicts and the souring relations between Pakistan and the Taliban-led Afghanistan.**
- Resolution of internal conflicts has now overtaken counterterrorism in the list of SCO priorities. However, the grouping has not been able to successfully limit the problems caused by this.
- An example of this was the **Afghanistan Peace deal**, which was agreed between the U.S.A and Afghanistan directly despite the SCO's assertion that it was the regional security arbiter.
- The internal challenges faced by Afghanistan during the Taliban's rise to power were a major concern for the SCO but it was not able to resolve the crisis.
- Similarly, the Russian army had to intervene to settle the internal conflict in Kazakhstan in January 2022 instead of the SCO.

Russian Challenge

- Russia, which can be described as both a protector and predator of the Central Asian regimes, has often dismissed those states as artificial nations.
- Russian President Vladimir Putin has regularly expressed his aim of establishing a **"Russiky Mir" or Russian World**, in which Russia would protect the minorities or smaller states beyond its borders.
- However, Russian actions in Ukraine have worried these Central Asian nations about possible incursions by Russia into their territories, leading to none of them endorsing the Ukrainian invasion.
- These states have attempted to reduce their dependence on Russia, which has strong ties with the local security establishment and the elites, as well as offering Central Asian natives attractive employment opportunities in Russia and consequently remittances to the smaller nations.
- In response, **Kazakhstan has adopted a multi-vector foreign policy**, similar to India's multi-alignment policy but it was not possible for all the states in this region to adopt this policy.
- The region was also affected by the attempts of regional actors like Turkey and Iran to increase their influence in the region.

How was China a challenge?

- China's increasing influence in the Central Asian region was a matter of concern for India.
- Some experts have predicted that **China would replace Russia as the regional power, with China slowly becoming the dominant partner** in their bilateral relationship in the aftermath of Russia's war in Ukraine.
- Others have highlighted the **growing synergy between Russia and China which was reflected in the signing of the "no limits partnership"**.
- According to them, Russia and China would coordinate not quarrel, with **Russian muscle and Chinese money serving as a defense against the intrusion of Western powers** in the region.
- The third possible outcome was that **China did not replace Russia** as the regional leader in the short term.
- However, the advocates of this scenario have included warnings of underestimating Chinese long-term ambitions as **China's support for Central Asian sovereignty, reinforced by Xi Jinping before the SCO summit at Samarkand last year, could clash with Russia's desire for a Russiky Mir.**
- China's rising role as a regional security provider, its shared borders and political ambitions could result in China acquiring regional leadership of Central Asia in the near-to-medium term.
- The **Global Security Initiative**, announced in 2022 was another step in the Chinese strategy to reinforce its regional security objectives.



Conclusion

- **India's engagement with the SCO was based on Russian primacy in the region and Moscow's support for its regional interests** as close allies.
- **A strong and independent Russia was a critical factor in maintaining the balance in inner Asia that India desired.**
- However, Russian strategic autonomy from China, as India desired, was unlikely given the closer ties between the two countries.
- India would be forced to defend its regional interests in a region where it did not have direct geographic access to while the distribution of power in the region evolved in favor of China.

What Are The Latest Developments In Yemen?

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Yemen

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

Context:

- Recently, hundreds of prisoners captured during the war in Yemen were reunited with their families between April 14 to 16 amid diplomatic efforts to halt the conflict.
- The main warring sides in Yemen are the Iran-backed Houthis and the pro-Yemen government, Saudi-led coalition.



Background of the conflict

- As part of the Arab Spring protests conflict in Yemen began in 2011.
- President Ali Abdullah Saleh was forced to hand over power to his deputy, Abdrabbuh Mansour Hadi.

- Mr. Hadi found himself faced with an insurmountable task of tackling Yemen's economic and security problems.
- In 2014, the Houthis, who were supported by Iran, took advantage of Mr. Hadi's weak grip and **took control of Sanaa** and a large portion of the country's north.
- The Houthis are an insurgent group who control most of the northern part of war-torn Yemen and largely follow the Zaydi sect of Shi'a Islam.
- The internationally recognized government fled to the south and then **into exile in Saudi Arabia**.
- A coalition led by Saudi Arabia intervened months after the Houthi takeover.
- The conflict has in recent years turned into a **regional proxy war between Saudi Arabia and Iran**, with the United States long involved on the periphery, providing intelligence assistance to Saudi Arabia.
- More than 150,000 people have died as a result of the conflict and has created one of the world's worst humanitarian disasters.
- The Arab Spring was a series of pro-democracy uprisings that enveloped several largely Muslim countries, including Tunisia, Morocco, Syria, Libya, Egypt and Bahrain.

How did the prisoner swap happen?

- According to a statement by the **International Committee of the Red Cross (ICRC)**, the **two opposing sides met in Switzerland** in March and agreed to release 887 detainees.
- The parties had also agreed to meet again in May to discuss more such releases.
- The inmates who had been released were transported by **ICRC planes to six cities in Saudi Arabia and Yemen**.
- A deal last month between [Saudi Arabia and Iran](#) to restore ties brokered by China has **boosted negotiations** between the kingdom and the Houthis and invigorated hopes of a negotiated settlement to the Yemeni conflict.

What is the Stockholm Agreement?

- In December 2018, the warring parties in control of parts of Yemen signed the **Stockholm Agreement brokered by the UN**, whereby they committed to **free conflict-related detainees**.
- The Stockholm Agreement has three main components:
 - The Hudaydah Agreement
 - A Prisoner Exchange Agreement
 - The Taiz Agreement
- **Hudayah agreement:** The Hudayah agreement had provisions for a cease-fire in Hodeidah and other clauses like no military reinforcements in the city and strengthened UN presence.
- When government supporters backed by a Saudi-led coalition started an attack to drive out the Iran-sponsored Houthi rebels from the Red Sea city of Hodeidah in November 2018, it resulted in hundreds of deaths.
- **Taiz agreement:** It includes the formation of a joint committee with participation from civil society and the UN.

How has the war impacted Yemen?

- According to the UN, Yemen is now the largest humanitarian crisis in the world with 80% of its population dependent on aid and protection.
- **Social:** Since 2015, over three million people have been displaced from their homes, and public service sectors like healthcare, water, sanitation, and education have either collapsed or are in a critical state.
- **Economic:** Its economic output has decreased by \$90 billion, and more than 6,00,000 people have lost their employment. More than half of the country's population is living in extreme poverty.

Challenges

- Some analysts fear that Saudi Arabia's withdrawal could see a new version of the conflict erupt between Yemen's rival governments.
- There are secessionists who want to restore a separate country of South Yemen, which existed from 1967 to 1990.

- Another challenge is that the Houthis have not shown themselves to be willing to compromise to reach peace with other Yemeni groups. They feel they are entitled to rule.
- Yemen remains home to al-Qaida in the Arabian Peninsula, long viewed by USA as the most-dangerous offshoot of the Islamic extremist group.

Conclusion

- If these regional powers agree to rein in their proxies and work towards rebuilding Yemen, that would also help them restore stability and security in the Arabian peninsula. The prisoner swap has raised hopes among the populace for long-lasting peace in Yemen.

Chinese Dual Use Facilities In Myanmar And Sri Lanka Raises Security Concerns In India

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: International Relations

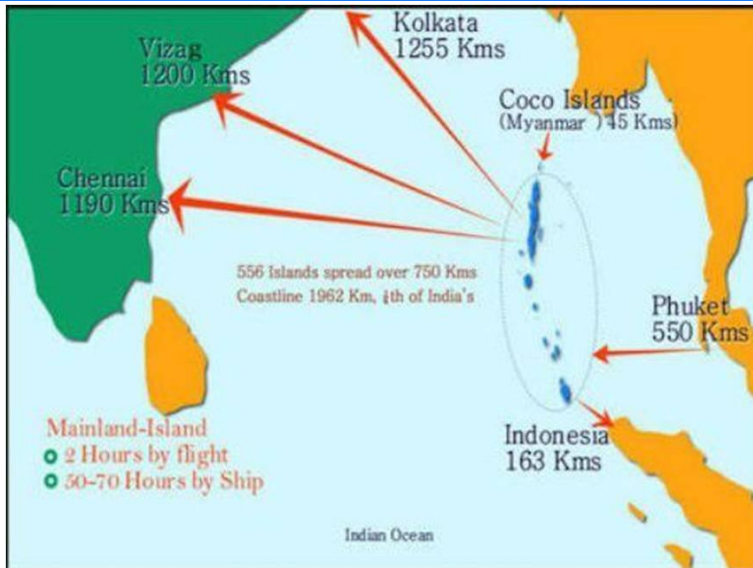
Prepp Mains Booster: India and its neighbourhood- relations; Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests. GS 3- Security challenges and their management in border areas

Context:

Recently, the construction of a military facility on **Coco Islands** in Myanmar and a proposed remote satellite receiving ground station system in Sri Lanka, both coming up with Chinese help, have raised concerns of India regarding possible surveillance across the region.

What is the issue?

- **Coco Islands, Myanmar:** Recent satellite images show the construction of a military facility on Coco Islands, which is located very close to India's Andaman and Nicobar island chain.
- Andaman and Nicobar Islands is the home to India's first tri-service command.
- In the past, there have been reports that China had set up a signals intelligence facility operational since the 1990s.
- Set up in 2001, ANC is based in Port Blair and is led by officers of the three services on a rotation basis. The command covers India's strategic interests in Southeast Asia and the Malacca Strait.
- A radome [dome-shaped structure to protect radars] was spotted on the island recently through satellite images, the island is being connected to the southern landmass using a new bridge 175m long and approximately 8m wide.
- The facility could always be used by the Chinese military when required.
- Great Coco Island is the largest in an isolated archipelago that lies just 55 km north of the Andaman and Nicobar Islands.
- **Srilanka:** Sources said China has proposed setting up a **remote satellite receiving ground station system** through a collaborative effort between the Aerospace Information Research Institute under the Chinese Academy of Sciences and the University of Ruhuna in southern Sri Lanka.
- Given its strategic location, it can be used to spy on Indian assets and intercept sensitive information also across the region.
- **Hangars and causeway:** Last month, London-based think tank Chatham House report suggests that this activity includes the construction of new hangars, a causeway, an accommodation block, and the lengthening of a runway and radar station.
- Moreover, there is evidence of land-clearing efforts indicating more construction work to come.



Picture 2: Coco Islands Reference Map

Source: Dr Naing Swe Oo, TISS

What are the concerns?

- It must be noted that satellite tracking facilities are inherently dual-use in nature, and according to sources, the Chinese civil space program is known to work closely with the Chinese military.
- **Intercept sensitive information about Indian assets:** China's expanding ground stations in the region could potentially be used to obtain sensitive information about Indian assets like India's satellite launch facilities in Sriharikota and the integrated missile test range in Odisha.
- The stations are likely to work in coordination with such vessels to **gather vital information** in the region (Docking of research and survey vessel at Hambantota in Sri Lanka).
- With the **added benefit of mobility**, space tracking, and surveillance ships could **perform many of the same functions as ground stations**.
- In August 2022, the Chinese spy ship 'Yuan Wang-5' docked at Hambantota, which created a major diplomatic showdown between India and Sri Lanka.
- Another vessel 'Yuan Wang-6' had entered the Indian Ocean Region in November 2022, which coincided with a planned Indian long-range missile launch but the launch was deferred and the vessel re-entered the IOR in December when the missile test was rescheduled, raising concerns about spying.
- China has invested heavily in Myanmar via the China-Myanmar Economic Corridor to access Indian Ocean sea lanes as a way to bypass the Strait of Malacca, which has acted as a critical sea lane for shipping destined for China's East coast.
- Chinese commercial shipping could soon bypass the strait and offload their cargo in Myanmar nullifying India's advantage.

Argentina

- The Espacio Lejano ground station in Neuquén, Argentina, which went live in 2017, has drawn attention and sparked debate ever since it was first proposed in 2012.
- According to a report by the American think tank Centre for Strategic and International Studies (CSIS) on China's space project, the contract between Argentina and China stipulates that Argentina "not interfere or interrupt" activities which only fuelled suspicions of spying.

Way forward

- The region holds significant strategic importance for India as many trade channels pass through it, and with China's increasing assertiveness in the area, India is looking to strengthen its maritime and surveillance capabilities there.

Saudi Arabia's Quest For Strategic Autonomy

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: International Relations

Prepp Mains Booster: Regional and global groupings and agreements; Effect of policies and politics of developed and developing countries

Context:

- Saudi Arabia, a country whose foreign policy has historically revolved around Iran, is now reaching out to old adversaries, having discussions with new opponents, and attempting to strike a balance between great powers, all while attempting to reform its domestic economy.

Background

- Saudi Arabia, which has pursued an assertive foreign policy in recent years in order to increase its influence in West Asia while undermining Iran, its hated adversary, is now taking a radical turn.
- It is reaching out to old adversaries, negotiating with new adversaries, and attempting to strike a balance amongst big powers, all while attempting to modernize its domestic economy.
- If Saudi Arabia's push for self-determination in foreign policy and regional security through diplomacy continues, it might have major consequences for West Asia.

Saudi's changing foreign policy

- For many years, the kingdom's animosity against Iran was the driving force behind Saudi foreign policy. As a result, proxy battles have erupted throughout the area.
- In Syria, Iran's only state partner in West Asia, Saudi Arabia joined up with its Gulf allies as well as Turkey and the West to fund and arm the insurgency against President Bashar al Assad.
- In Yemen, whose capital Sana'a was captured by Iran-backed Shia Houthi rebels in 2014, the Saudis launched a bombing campaign in March 2015 that has yet to be declared ended.
- When the Saudis put a blockade on its smaller neighbor in 2017, one of the conditions was that Qatar cut connections with Iran. However, the Qatar blockade ended in a failure in 2021.
- After China-mediated discussions, Saudi Arabia claimed last month that it had reached an agreement to normalize diplomatic relations with Iran.
- Soon after, there were allegations that Russia was mediating discussions between Saudi Arabia and Syria, which might lead to the latter rejoining the Arab League before the next summit, which is set for May in Saudi Arabia.
- A Saudi-Omani group visited Yemen earlier to negotiate a durable truce with the Houthi rebels.
- All of these actions represent a significant departure from Crown Prince Muhammad bin Salman's policies since ascending to the Kingdom's highest echelons in 2017.
- Aggression makes way for diplomacy, while faithful relationships make way for pragmatic realignments.
- This is occurring at a time when Saudi Arabia is also attempting to strike a balance between the United States, its major armaments supplier, Russia, its OPEC-Plus partner, and China, the region's rising powerhouse.

Is Saudi Arabia drifting away from the United States?

- The United States, which has thousands of troops and military assets in the Gulf, notably its Fifth Fleet, would continue to play a vital security role in the region.
- The United States is still Saudi Arabia's major defense supplier. With assistance from the United States and others, the Kingdom is also attempting to build sophisticated missile and drone capabilities in order to match Iran's advantage in these areas.

- At the same time, the Saudis recognize that the United States' deprioritization of West Asia is changing the region's post-war order.
- Saudi Arabia is attempting to autonomize its foreign policy by exploiting the vacuum produced by US policy shifts.

How is Saudi Arabia balancing between global powers?

- Unlike most other American allies, Saudi Arabia declined to join anti-Russia sanctions.
- Despite Washington's protests, Saudi Arabia has joined forces with Russia to restrict oil output twice since the Ukraine crisis began, in order to keep prices high, which benefits both Moscow and Riyadh.
- Saudi Arabia is now pursuing huge infrastructure projects aimed at modernizing its economy, and in order to sustain such projects and accomplish its economic goals, the Kingdom requires high oil prices.
- It has also strengthened commercial and defense relations with China, and the Iran reconciliation agreement, mediated by China, signaled Beijing's entry as a power broker in West Asia.
- At the same time, Saudi Arabia has put \$35 billion in orders for Boeing aircraft and has begun conditional negotiations with the US on normalizing relations with Israel. De-Americanization of West Asia is not a Saudi ambition.
- Rather, it is attempting to use America's weakness in the area in order to develop its own autonomy by strengthening connections with Russia and China and repairing relations with regional countries without fully alienating the US.

Implications for the region

- If Syria rejoins the Arab League, it would be an official acknowledgement of Mr. Assad's triumph in the civil war and would help repair ties between Damascus and other Arab capitals.
- Similarly, if the Saudis finish the Yemen conflict by a settlement with the Houthis (which would almost certainly partition Yemen), Riyadh would have a quieter border but Tehran will be able to maintain its present influence in the Saudi backyard.
- Such accords may not significantly alter the region's security dynamics, but they may provide some stability across the Gulf.
- While the Saudis work to promote cross-Gulf stability, another portion of West Asia remains unstable, as seen by last week's Israeli raid on Jerusalem's Al Aqsa Mosque, Islam's third holiest place of worship. This prompted rocket assaults from Lebanon and Gaza, as well as Israeli bombardment of both regions.
- Israel continues to strike Syria with impunity. The impact of escalating tensions between Israel and Iran on cross-Gulf stability remains to be seen.

How Saudi Arabia is balancing between global powers



How is India's relation with Saudi Arabia?

- **Oil and gas:** Saudi Arabia is now India's second-largest crude oil supplier (Iraq is the top supplier). Saudi Arabia supplies around 18% of India's crude oil needs and approximately 22% of its LPG needs.
- **Commercial Relations:** Saudi Arabia is India's fourth largest economic partner (after China, the United States, and Japan) and a key source of energy, with the Kingdom supplying around 18% of the country's crude oil needs. Saudi Arabia is also a significant supplier of LPG to India.

- Bilateral trade was at US\$29.28 billion in FY22. India's imports from Saudi Arabia were valued at US\$22.65 billion, while exports to Saudi Arabia were valued at US\$6.63 billion.
- **Cultural Links:** The Haj pilgrimage is another key component of India-Saudi Arabia bilateral ties. In 2018, India was a 'Guest of Honor' during the 32nd edition of the famous Saudi National Festival of Heritage and Culture.
- **Naval exercise:** The Al-Mohed Al-Hindi Exercise, the first-ever naval joint drill between India and Saudi Arabia, began in 2021.

A Crucial Six Months For India-U.S. Ties

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: India-US

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

Context:

- The author has discussed the Indo-US relationship, the goals and strategies of both countries and its relevance in global geopolitics in the article titled "A crucial six months for India-U.S. Ties" published in the Hindu on 11th April 2023.
- The recent appointment of the US ambassador to India and the upcoming visits of PM Modi to the USA and President Biden to India were expected to be critical points in the relationship.



What are some of the Policy divergences between India and the U.S.A ?

- The appointment of **Eric Garcetti as the new US Ambassador to India**, after two years, was an indication of the potential of the India-U.S. relationship.
- However, there were differences of opinion between the two countries on various matters.
- The US would want India to alter its position on the Ukraine crisis while India would like the US to adopt a stronger policy against China.
- While India would be interested in a better relationship with the US, it would be reluctant to sever its traditionally close ties with Russia.
- Russia had recently released its foreign policy strategy which identified India and China as its major allies.
- At the same time, **India was the incumbent President of the Shanghai Cooperation Organisation** whose members included Russia and China, two countries labelled a threat by the US.
- NATO has attempted to build stronger synergies with India as it has expressed a desire for India to take up a larger role in the Indo-Pacific.

What are the Convergences in India-US Policy?

- In 2022, India and the U.S. had launched the **Initiative on Critical and Emerging Technologies (iCET)** which was aimed at expanding the

strategic technology partnership and military coordination between the countries' governments, private sector and academia.

- The Indo-Pacific Partnership between the two countries has been developed with the goal of promoting security and economic growth, enhancing connectivity and improving trade and investment.
- The Partnership was founded on a **shared vision of a free, open and inclusive Indo-Pacific that prioritised the sovereignty and territorial integrity** of all countries.
- The Partnership consisted of joint military exercises, strategic information-sharing, collaboration on economic and infrastructural development and other activities in fields of shared interest such as counter-terrorism, marine security, and cyber-security.
- A key objective of the Partnership was to act as a **counter to China's growing influence in the region** as both the US and India have expressed concern over **Chinese military expansion, the Belt and Road Initiative and territorial aggression in the South China Sea.**

Opportunity for India

- Globally, countries have expressed an interest in **diversifying supply chains** away from their dependence on China due to geopolitical concerns, trade disputes and the understanding gained from the pandemic of how overreliance on one country could threaten the global economy.
- **India's vast and still growing consumer market** (It was home to the world's largest population) made it an attractive destination for investment by US corporate firms looking to expand their consumer base.
- India also possessed a **relatively low-cost labour force and skilled labourers**, especially in critical fields such as IT, engineering, and manufacturing.
- The Government has also instituted policies that were aimed at attracting foreign investment and strengthening the country's economic growth.
- However, the realignment of U.S. supply chains to India faced certain challenges.
 - Indian infrastructure, logistics, and regulatory systems have not developed to the level available in China.
 - Investors looking to invest in India were discouraged by the country's **complex legal and bureaucratic system.**
- The governments of the two countries have adopted actions aimed at promoting closer economic ties and facilitating investment, such as the **U.S.-India Strategic Energy Partnership (2020)** which was aimed at enhancing energy and climate change cooperation.

Ups and Downs

- The India-U.S. relationship had experienced numerous highs and lows throughout its existence.
- The civil nuclear deal, the opening of the market, and the outsourcing of Indian specialised and qualified labour were the highlights of the relationship.
- The U.S. had aided India in transforming into a nation with surplus food supplies through the Green Revolution and played a major role in India's growth into an IT superpower.
- India and the U.S. had also partnered in efforts concerning climate change adaptation and mitigation with initiatives such as promotion, research and development and investment in renewable energy.
- Experts had expressed the hope that the trust deficit that had existed between the two countries could be bridged in the next six months in which the Indian PM was scheduled to visit the USA and the President of the U.S.A. was scheduled to visit India to attend a session of the G-20.
- A major low in the relationship was the U.S.'s support for Pakistan while the American withdrawal from Afghanistan had cast doubt on the U.S.'s reliability as a long-term partner.
- On the other hand, the U.S.A. had criticized issues such as terrorism, human rights and democracy on which it felt that India had not performed ideally.

Conclusion

India and the U.S.A can build upon their Strategic Partnership to form a mutually beneficial relationship with constructive collaboration in fields of shared interest that helps both nations achieve their goals.

G20 And The Ukraine War

Priority: **Medium**

Primary Source: Indian Express

Prepp Prelims Booster:

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

Context:

- Recently, **Emine Dzhaparova, Ukraine's First Deputy Foreign Minister, visited New Delhi** at a time when her nation is locked in an interminable war with Russia.
- It was Dzhaparova's first Ukrainian official visit to India since the start of the Russian invasion in February 2022.

About G20 Presidency

- India took over the G20 Presidency from Indonesia on December 1st, and will host the G20 Leaders' Summit for the first time in the country in 2023.
- A nation deeply committed to democracy and multilateralism, India's G20 Presidency would be a watershed moment in her history as it seeks to play an important role by finding pragmatic global solutions for the wellbeing of all, and in doing so, manifest the true spirit of '**Vasudhaiva Kutumbakam**' or the '**World is One Family**'.

Ukraine Deputy Foreign Minister's Engagement in India

- Dzhaparova visited India from April 10 to 12, and the agenda included economic, defense, humanitarian assistance, and global topics of mutual concern.
- Concerning Indian medical students, the Ukraine minister stated that her nation will enable overseas medical students to sit the Unified State Qualification Exam in their home country.
- The Ukrainian Deputy Foreign Minister also said that reconstructing infrastructure in Ukraine may be an opportunity for Indian firms.
- Ukraine has requested extra humanitarian aid, including medications and medical equipment, which she has also shared.
- The minister emphasized Ukraine's aim to create a deeper and closer partnership with India.



Purpose of Ukraine's Visit

- The purpose was to invite New Delhi to restart relations with Kiev in order to achieve better balance in its attitude on the war.
- The Minister cited National Security Advisor Ajit Doval's three visits to Moscow and invited him to Kyiv to build a special security mechanism between the two nations.
- Ukraine believes that it must change military realities on the ground in order to persuade the Western alliance led by the United States to

continue funding its war effort and to prevent defeat or being forced to accept an unfavorable territorial settlement.

India's G20 Challenges

- It was asserted that G20 conversations concerning the global economy were impossible without a discussion about the consequences of Russia's war against Ukraine.
- Whether India would truly accept her recommendation that it "take leadership" in engaging Ukraine in the agenda of G20 summits and meetings is another challenge.
- The success of India's G20 presidency is dependent on how successfully it can bring together opposing parties in Russia's conflict against Ukraine to generate a consensus declaration that can be endorsed as the New Delhi Leaders' Declaration.
- The challenge is made more difficult by the fact that Russia's ally, China, is not a friend of either India or the US. Beijing and New Delhi have been engaged in a verbal spat over Beijing's "renaming" of locations in Arunachal Pradesh, which it refers to as "South Tibet."
- The problems in getting everyone on the same page were obvious during the G20 Finance Ministers and Foreign Ministers meetings, both of which produced merely a "Chair's summary."
- Officials may be working "on multiple options" for this year's summit, including the prospect of two different communiqués, one covering the G20's main agenda, on which there would be agreement, and another on the Ukraine war.

Relations between India and Ukraine

- **Bilateral treaties and agreements:** More than 17 bilateral agreements have been signed between India and Ukraine, including agreements on Science and Technology Cooperation, Foreign Office Consultation, Space Research Cooperation, Avoidance of Double Taxation, and Promotion and Protection of Investments.
- **Trade relations:** The India-Ukraine trade and commercial relationship has grown out of the two nations' long-standing friendship. The Treaty of Friendship and Cooperation between India and Ukraine was signed in March 1992, giving a significant boost to India-Ukraine commercial relations.
- **Political Relations:** India has maintained good relations with Ukraine since it was a republic inside the Soviet Union. Ukraine has a favorable international relationship with India. Ukraine supports the resolution of the Jammu and Kashmir conflict on the basis of the Simla accord. Ukraine also supports reforms of UN structures.
- **Education:** According to the Indian Embassy in Ukraine, the country has around 18,000 students pursuing medicine or engineering.
- **Science and technology relations:** The Joint S&T Committee meets yearly under the terms of the Agreement signed between India and Ukraine in May 1992 to review project implementation, exhibits, and scientific research cooperation.
- **Position on Russia's invasion of Ukraine in 2022:** Throughout Russia's invasion of Ukraine, India took a neutral posture and refrained from voting in favour of multiple resolutions denouncing Russia's conduct, both at the United Nations General Assembly and the United Nations Security Council.

Conclusion

As India deals with a situation of dealing between two nations with hope for a G20 summit consensus, it is now preparing for a visit by another dignitary this month after saying goodbye to the Ukrainian. Russia's Deputy Prime Minister Denis Manturov, who is also the Minister for Industry and Trade will attend a meeting of the India-Russia Inter-Governmental Commission on trade, economic, scientific, technical, and cultural cooperation.

Angry With Reform Delays, India Calls U.N. System 'Anachronistic'

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: UNSC

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

Context:

- Recently, in a speech at the UNSC, the Indian Permanent Representative referred to the U.N. Charter as "anachronistic", it was also additionally pointed out that it has failed to address the COVID-19 pandemic, the war in Ukraine, terrorism, and climate change.
- The Indian Permanent Representative spoke at a session convened by Russia that called for a discussion on how to make multilateralism effective "by defending the U.N. Charter".

Reasons cited by India

- **Slower pace of reforms:** India expressed frustration with the slow progress of the Inter-Governmental Negotiations (IGN) process for U.N. reforms.
 - Intergovernmental Negotiations (IGN) are currently the official forum for Member States to discuss and debate Security Council reform.
- The IGN process began in 2008 is now in its 15th year, and though a draft text of the reforms proposed was presented in 2015, there is little indication that negotiations on the basis of a text will begin in the near future.
- **Identification of groups:** India has called for identifying groups and countries **that oppose specific countries' expansion.**
 - Uniting for Consensus is a movement that developed in the 1990s in opposition to the possible expansion of permanent seats in the United Nations Security Council
 - **Members:** Argentina, Canada, Colombia, Costa Rica, Italy, Malta, Mexico, **Pakistan**, Republic of Korea, San Marino, Spain, Türkiye.
- The next IGN session in June will be closely watched, featuring live webcasts of national statements and discussing the way forward for the process.
- **Abuse of veto powers:** The veto powers have been criticized for being **undemocratic** and stalling the functionality of the UN.
- It is against **'effective multilateralism'** as it makes five nations more equal than others, and provides the power to **ignore the collective will of the remaining 188 member states.**
- France and at least nine temporary U.N.S.C members — including Australia, Canada, Singapore, Lebanon, and Ghana have voiced their disapproval of the veto system, and its "abuse" by permanent members. Many of them directly referred to Russia's invasion of Ukraine.
- India for the first time has specifically criticized giving the veto to the P-5, making clear that in any expansion of the Security Council, the right to veto must be granted to all members—or none.

Why is there a need for UN reforms?

- **Representation:** The UNSC does not reflect the geopolitical reality of the 21st century. For instance, the UNSC permanent membership is concentrated in Western powers, and South America and Africa do not have representation.
- **Reform of UN charter:** India called for an immediate review of the U.N. Charter from 1945, India cited **Article 109** which said a "review conference" must be held within a decade of the original charter being adopted.
- Apart from three amendments on expanding the U.N.S. C. and the ECOSOC, it has not been updated yet.
- India criticized that the U.N. Charter still refers to two of the permanent members as "Union of Soviet Socialist Republics" and the "Republic of China" rather than Russia and China.
- Despite their current positions in the international order, Japan, Italy, and Germany are still referred to as "enemy states" based on their situation during the Second World War.
- Reforms are needed to reflect the reality of today's global economy and Moreover the Security Council itself would benefit from reforms that reflect today's geopolitical reality.

Conclusion

- The reform is needed to enable the Secretariat to more effectively and accountability deliver on its mandates, and therefore better position the United Nations to confront global challenges.

Diplomacy, With A Change In Terms Of Reference

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: International Relations

Prepp Mains Booster: India and its neighbourhood- relations: Regional and global groupings and agreements involving India and/or affecting India's interests

Context:

- In this article, Hamid Ansari, former Vice President of India has discussed the **revival of diplomatic relations between Saudi Arabia and Iran as a consequence of China's mediation efforts** which is significant in terms of regional stability and the shifting dynamics of international diplomacy.

Background

- Bilateral attempts have been undertaken since early 2016 to alleviate tensions that had arisen notably between Tehran, Riyadh, and Abu Dhabi, as well as within the Gulf Cooperation Council (GCC) in respect to Yemen and Syria.
- The Emir of Kuwait and the Sultan of Oman took moves that were met with resistance from Iran. Talks also took place in Baghdad and during Iranian President Ebrahim Raisi's February visit to China.
- All concerned about the assaults on maritime and energy infrastructure in the Kingdom of Saudi Arabia (KSA) and the United Arab Emirates, as well as the long-term ramifications of the regional hostilities that were taking place.
- China's President Xi Jinping's official visit to Saudi Arabia in December 2022, saw him attending the first China-Arab States Summit and the China-GCC Summit.
- China would continue to strongly support GCC nations in maintaining their security, as well as regional efforts to resolve conflicts via dialogue and consultations and to establish a gulf security architecture.



China's Mediation Efforts

- Mediation is a spontaneous act; more often than not it is preceded by quiet efforts to seek a meeting point between differing viewpoints of individuals or organizations.
- In a joint statement issued recently, by Iran, Saudi Arabia, and China, the three countries announced that an agreement had been reached between the Kingdom of Saudi Arabia and the Islamic Republic of Iran covering the resumption of diplomatic relations and the reopening of their embassies and missions within two months.

- The agreement affirmed their respect for state sovereignty, non-interference in the internal affairs of states, and stated that the Foreign Ministers of both countries would meet to implement this, arrange for the return of their Ambassadors, and discuss ways to strengthen bilateral relations.

What are the terms of agreement?

- Saudi Arabia and Iran began direct talks in 2021 and have held multiple rounds of negotiations since then, first in Iraq and then in Oman, with no breakthrough.
- On both sides, however, there was a growing realization that the diplomatic path should be kept open.
- The reconciliation was announced recently after days of secret talks in Beijing.
- Iran** has agreed to prevent further attacks on Saudi Arabia, particularly those from Houthi-controlled areas of Yemen.
- Saudi Arabia**, for its part, agreed to rein in Iran International, a Farsi news channel critical of the Iranian regime (which the Iranian intelligence has termed a terrorist organization).
- China also intends to host a cross-Gulf conference this year between Iran and the six Gulf monarchies that comprise the **Gulf Cooperation Council, or GCC (Saudi Arabia, the UAE, Qatar, Bahrain, Kuwait, and Oman).**

Reaction of America and Israel

- Aside from obvious astonishment, the United States' comments reflected the shift in frames of reference in international diplomacy.
- Israel, the other main power in the area, was also astonished, seeing it as a fatal blow to the drive to form a regional alliance against Iran.

What is India's Stand?

- The Indian response, aside from historical ties, is in India's immediate vicinity and within its security constraints.
- It is the primary source of hydrocarbon imports and, to a lesser extent, investment. Apart from being a key economic partner, it is also an important destination for personnel exports.
- The official strategy has been to focus on bilateral ties and to avoid engagement in bilateral and regional problems.
- Given these considerations, India has purposefully avoided speculative efforts in alternative security architectures, instead focusing on cooperative security and freedom of waterways and navigation.

Implications for India

- Energy Security:** Iran and Saudi Arabia are the world's two largest oil producers, and any conflict between them can cause oil price spikes that have a significant impact on India's energy security. Normalizing relations between these two countries could help stabilize global oil prices and ensure a consistent supply of oil to India.
- Trade:** Iran and Saudi Arabia are both important trading partners for India. Normalizing relations between them could open up new trade and investment opportunities for India.
- Regional Stability:** India has significant economic and strategic interests in the Middle East, including the International North-South Transport Corridor (INSTC). Iran is part of India's extended neighborhood. Any instability in the region can have far-reaching consequences for India. Ties between Iran and Saudi Arabia could contribute to greater regional stability, reducing the risk of conflict and terrorism.
- Geopolitics:** India maintains friendly relations with both Iran and Saudi Arabia and plays an important role in ensuring regional peace and stability. Ties between these two countries could aid India's efforts to promote regional peace and security. However, Chinese mediation between Iran and Saudi Arabia will pose challenges for India because it will contribute to China's growing influence in the region.

FAO: Closing Gender Gap In Agri-Food Systems Can Boost Global Economy By \$1 Trillion

Priority: Medium



Primary Source: Down to Earth

Prepp Prelims Booster:

Prepp Mains Booster: Issues relating to poverty and hunger, Important International institutions, agencies and fora- their structure, mandate, GS1- Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.

Context:

- Recently, a report by the Food and Agriculture Organisation has indicated that tackling inequality in agri-food systems could contribute significantly towards reducing hunger, supporting the economy, and building resilience to shocks like the Covid-19 pandemic and climate change.
- Development interventions focused on women could lead to a rise in incomes for 58 million more people and reduce the number of food-insecure people by 48 million.

What has the FAO report said?

- The **Status of Women in Agrifood Systems** report was released by the **UN Food and Agriculture Organization** on April 13th 2023.
- The report was not limited to just agriculture and aimed to provide a comprehensive picture of the **status of women working at all levels of the agri-food system including production, distribution and consumption**.
- The report has highlighted that the adoption of measures to **tackle gender insecurity in agri-food systems could lead to gains in hunger reduction, and economic growth and building resilience to economic shocks like the Covid-19 pandemic and climate change**.
- The FAO has claimed that the reduction of the gender gap in agricultural productivity and the wage gap in the agri-food sector could lead to **an increase of around \$1 trillion in the global GDP**.
- The report has stated that if even half the total number of small-scale producers benefited from women-based development initiatives, it could **lead to around 58 million people enjoying a rise in their incomes and improved resilience of around 235 million people**.
- All these actions together would result in global food insecurity dropping by 2 percentage points which translates into around 45 million more food-secure people.
- The report was the first such report since the 2010 report on the **State of Food and Agriculture (SOFA)**.

Women in the Agri-foods sector

- Almost 4 billion people relied on the agri-food sector for their livelihoods of which roughly half were women.
- Women in the industry have been denied the opportunity to realize their potential and have been limited by inequality, gender and caste discrimination, marginalization and denial of agency, poor working environment, low wages and disproportionate burden of care and unpaid domestic labour.
- According to the report, despite women's access to digital and financial resources having improved in the last few years, the gaps were unchanged or increasing especially for rural women.
- The **gap between food security enjoyed by men and women had increased by 4.3 percentage points since the Covid-19 pandemic**.
- Rural women bore a significantly higher risk of food insecurity** than other sections of society.



What has the report said on gender diversity?

- According to the report, women and girls had to suffer constraints and barriers which men and boys did not have to as a result of the rigid gender norms, social roles, discriminatory social structures and unequal power dynamics.
- The effects of these discriminatory policies on women's progress were worsened by climatic, economic and social challenges, conflicts and gender violence.
- The report recommends taking action to mitigate the endemic gender inequalities in the agri-food system in order to address the issues of poverty and hunger.
- Agri-food systems were a major source of employment for women and the welfare of their families. However, women were marginalized in employment roles and had to face much poorer working conditions when compared to men in the same role.
- Additionally, women's roles in the agri-food industry were likely to be irregular, informal, part-time, labour intensive, and have lower skill requirements, all of which would lead to greater vulnerability of women.
- Men have a larger share than women in terms of land ownership in 40 of the 46 countries that reported their performance on **SDG5.a.1**.
- Women earned 82 cents to every dollar earned by men. Closing this wages/earning gap would lead to greatly improved food security, nutrition levels and economic growth.
- Women needed a greater level of access to and control over livestock, water, seeds, land, technology, and financial resources in order to improve their livelihoods and subsequently their standards of living.
- The FAO has claimed that the elimination of discrimination would lead to tangible benefits and required intervention at every level of the industry while also educating men and boys about the need for gender equality.

What was the outcome of interventions in Asia and Africa?

- An analysis and review of 13 development projects in countries from South Asia and Africa as part of the **Women Empowerment in Agriculture Index** has revealed that the programme has produced mixed benefits on women empowerment.
- The projects considered included a combination of crops, livestock, and nutrition interventions which aim to increase income and nutrition levels.
- One-third of the agri-food system projects in Africa and South Asia had led to a significant increase in gender parity in the household while one intervention led to a reduced parity and the other did not have any discernible impact.
- It was also observed that women's control over income, asset ownership and membership in groups and associations improved under all the programmes reviewed in Africa and South Asia.

India-UAE Cooperation To Sow Regional Food Security



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: India-UAE

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India; GS 3 - Food processing and related industries in India- scope and significance, location, upstream and downstream requirements, supply chain management; changes in industrial policy and their effects on industrial growth.

Context:

- This article is written by Abdunnasser Alshaali, Ambassador of the United Arab Emirates to India.
- In this article, the author talks about the **India-UAE food security partnership** and its benefits.

Global capabilities

- Global agri-export powerhouse:** India is the **second-largest food producer** in the world and it has built its status as a global agri-export powerhouse with its vast tracts of arable land, favourable climate, and a large and growing food production and processing sector.
- Humanitarian Food Provider:** India along with serving global markets with its diversified agri-produce, has acted as a humanitarian provider of food to developing countries.
- Budgetary allocation:** India has also committed significant budgetary resources to establishing **sizable food parks**, with a focus on modern supply chain management that extends from the farm gate to the retail outlet.
- Interest in Trade Agreements:** India's proactive approach to leveraging bilateral trade agreements highlights India's commitment to improve and utilize its agricultural capabilities in the global food marketplace.
- Promotion of Millets:** As part of its G-20 presidency, India is encouraging the cultivation and consumption of millets, which are healthy, drought-resistant crops that highlight the resilience focus that India contributes to the global food security dialogue.
- India's G-20 presidency seeks to address the three Cs, of "Covid, Conflict, and Climate" issues pernicious to food security in India and across the globe.

Capabilities within India

- Public Distribution System:** India's Public Distribution System is the world's **largest food subsidy programme**, providing nearly 800 million citizens with subsidised grains
- Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN) Abhiyaan':** It is the world's **largest nutrition program** for children and women.

How India-UAE Cooperation will benefit India?

- Investment:** During the I2U2, July, 2022 (India, Israel, the United Arab Emirates and the United States), the United Arab Emirates (UAE) pledged \$2 billion in funding **to help build food parks in India** (in Madhya Pradesh and Gujarat).
- Food security corridor:** India's envisioned presence on the global food value chain has been further advanced through the signing of a food security corridor on the sidelines of the **Comprehensive Economic Partnership Agreement (CEPA)** with logistics partner DP World.
- The Comprehensive Economic Partnership Agreement (CEPA) between India and UAE (the United Arab Emirates) was signed on February 18, 2022, as part of the India-UAE Virtual Summit.
- CEPA establishes an institutional mechanism to foster and improve trade between two countries.
- Access to International Markets:** The corridor could potentially commence a route for foods made and processed in India, beginning their outbound journey on the Indian coast of the Arabian Sea, passing through the UAE, and **towards major international markets.**

- The corridor has the potential to establish itself as a model of successful agri-trade for India and become a source of **increased productivity, efficiency, and growth** for the country's millions of workers and employees.
- Direct access to markets in UAE:** Agriota, an agri-trading and commodity platform to connect Indian farmers with food corporations in the UAE, was introduced by the Dubai Multi Commodities Centre, the largest free trade zone in the UAE.
- Agriota provides millions of Indian farmers with the opportunity to connect directly with the whole food ecosystem in the UAE (processing businesses, dealers, and wholesalers) and stock their goods in Emirati stores.
- A group of UAE-based companies are funding this endeavour with up to \$7 billion in investments in mega food parks, contract farming, and the sourcing of agro-commodities from India.
- India will benefit from the UAE's private sector projects in the agricultural and food processing sectors.
- Economic benefit:** These initiatives will create lakhs of non-farm agri-jobs and help farmers find higher prices for their produce.
- Diversification:** India's agricultural exports will have more robust and diversified pathways to the global marketplace as a result of the UAE's infrastructure capabilities.



How will the UAE benefit?

- Diversification:** The UAE stands to benefit not only from **maintaining and diversifying its food reserves**, but also from trade linkages that could position it as India's food export **gateway to West Asia, Africa, and beyond**, leveraging its strategic location between Asia and Europe.
- Food security:** The United Arab Emirates (UAE) which is reliant on imports will achieve twin objectives of food access and readiness to confront supply chain crises. India, the world's second-largest food producer, is an essential partner in the UAE's ambition to strengthen food security.
- India's enormous experience in the food industry and its capacity to operationalize the largest food supply chains in the world are powerful assets that will help the UAE in a number of ways.

Conclusion

- The G-20 presidency of India is an ideal opportunity for both India and the UAE to present effective strategies and frameworks that can serve as the **foundation of food security in the Global South.**

India, China Snap Up Russian Oil In April Above 'Price Cap'



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: International relations

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests

Context:

- Recently, it was stated that India and China have snapped up the vast majority of Russian oil so far in April at prices above the western price cap of \$60 per barrel.

Background

- Indian refiners began buying Russian oil at a discount following Moscow's invasion of Ukraine last year.
- The quick increase in Indian refiners' imports of Russian oil resulted in Moscow becoming New Delhi's top crude supplier within a few months, displacing giants such as Saudi Arabia and Iraq.
- Prior to the Ukraine conflict, Russian oil was almost non-existent in India's crude oil imports.
- Even in March of last year, just following Russia's invasion of Ukraine, Russian crude accounted for only 1.6% of India's total oil imports.
- The fast increase of oil commerce between India and Russia has contributed to the latter becoming one of New Delhi's major trading partners.

INDIA'S IMPORTS OF RUSSIAN CRUDE BY GRADE (in barrels per day)

GRADE OF CRUDE	JAN	FEB	MAR
Urals	1002230	1224980	1163424
Sokol	108286	174718	140804
Varandey	92736	161186	112244
Arco	50292	60102	52698
ESPO blend	4946	2468	92338
Novy Port Light	-	-	58733
Siberian Light	-	-	26071
Total	12,58,490	16,23,454	16,46,311

SHARE OF URALS IN RUSSIAN OIL	January	79.64%
	February	75.46%
	March	70.67%

Source: Vortexa

Price cap on Russian Oil

- The \$60-per-barrel price limit on seaborne crude imposed by G7 and Australia bears that out, lining up with current market prices.
- The price cap proposal is the series of penalties imposed by Western countries against Russia for its invasion of Ukraine.
- For the last several months, US and EU officials have been attempting to persuade nations like India, China, and Turkey to join the alliance or, at the very least, to endorse the price restriction.
- They claim that the price cap is in the best interests of all Russian oil customers since it gives them power to cut purchasing prices.

How does it work?

- The imposition of a price ceiling on Russian oil implies that nations who sign up to the policy will only be able to acquire Russian oil and petroleum products that are offered at or below the price cap.
- The price ceiling is intended to prevent Russia from benefiting from its aggressiveness while also reducing the impact on global energy costs.
- Countries who join the alliance would simply stop buying Russian oil until the price is decreased to where the cap is decided.
- Countries who do not join the alliance or acquire oil at a price higher than the limit will lose access to all coalition-provided services.

Recent Oil Consumption

- China and India, Russia's key consumers in recent months, purchased Russian cargoes in April at rates higher than the G7's \$60 per barrel price ceiling.

- Russia's flagship crude grade Urals is presently trading over the \$60 price ceiling and has primarily gone to India and China this month.
- India is expected to account for more than 70% of Urals shipments in April, with China getting 20% of those shipments so far this month.
- China and India have not joined the so-called Price ceiling Coalition, a group of largely Western nations that has set a price ceiling on Russian crude oil if the cargoes use Western insurance, transportation, and finance.

India's Stand on Russia's War with Ukraine

- India's reaction to Russia's invasion of Ukraine has been unique among major democracies and vital partners of the United States.
- Despite its displeasure with Moscow's conflict, New Delhi has maintained public neutrality toward Russia.
- It has abstained from votes in the UN Security Council, General Assembly, and Human Rights Council condemning Russian aggression in Ukraine, and has thus far declined to explicitly blame Russia for the conflict.
- India has come under intense indirect pressure from Western governments that have explicitly criticized Russia's military intervention against Ukraine.
- India has been advocating for a diplomatic and dialogue-based solution to the problem.

G7 To Decarbonize Power Grids By 2035, Fails To Agree On Coal Phase-Out By 2030

Priority: Medium

Primary Source: Indian Express

Prepp Prelims Booster: G7

Prepp Mains Booster: Global Groupings and Agreements; GS3 - Environment

Context:

- Recently, the Group of Seven (G7) Climate and Environment Ministers' conference in Sapporo, Japan, has concluded.
- The G7 countries agreed to decarbonize their power grids by 2035 and accelerated the phase-out of "domestic unabated coal power."
- In the framework of its G20 presidency, India was also invited as a 'guest' to the summit.

What is G7?

- The [Group of Seven \(G7\)](#) is an informal grouping of industrialized democracies.
- The group meets once a year to address topics such as global economic governance, international security, and energy policy.
- The G7 nations are the United Kingdom, Canada, France, Germany, Italy, Japan, and the United States.
- The G7 lacks a written constitution and a permanent headquarters. Leaders' choices at annual summits are not legally binding.



Outcomes of the G7 Climate and Environment Ministers' Meeting

- **Carbon-free power production by 2035:** Participating leaders agreed to work toward a fully or predominantly decarbonised power sector by 2035 and to accelerate the phase-out of coal. Although a suggestion to set a 2030 timeline for phasing out coal was rejected, the final text allows for ongoing investment in gas on the basis that it can serve as a stopgap against energy shortages.
- **Expedite solar and wind energy investments:** Participants also agreed to accelerate solar and wind energy investments in order to create 1 terawatt i.e. 1,000 gigatonnes (GW) of solar electricity and 150 GW of wind power from off-shore platforms by 2030.
 - In 2022, the G7 accounted for 30% of the total global solar capacity at 319.7 GW. It was expected to multiply by four times to 1.3 TW on the basis of the present commitments.
 - In 2022, the G7 accounted for 35.6% of the total offshore wind power capacity at 22.5 GW, which would rise around eight times by 2030.
- **Concerning fossil fuel subsidies:** The leaders emphasized that fossil fuel subsidies are incompatible with the aims of the Paris Agreement. They pledged to phase out wasteful fossil fuel subsidies by 2025.
- **Zero net greenhouse gas (GHG) emissions:** Recognizing the present global energy crisis and economic upheavals, members reiterated their commitment to speed the clean energy transition to net-zero GHG emissions by 2050 at the latest.
- **Renewable energy:** According to IRENA, a commitment of 10.8TW of renewable energy capacity was required by 2030 to keep up with the 1.5°C target. At present, the commitments of countries was on course to achieve only half of this goal.
- **Critical minerals:** Critical minerals like Lithium, nickel and cobalt were critical in maintaining national security and modern industrial growth. The G7 countries have acknowledged the importance of these minerals in the energy transition process and resolved to address vulnerabilities while attempting to diversify sources of these elements. The communique has not mentioned the potential impacts of mining for critical minerals, a strategy to improve production or addressing concerns over extraction from poor countries.
- **Climate finance:** The G7 discussed new fit-for-purpose funding goals from public and private sources but did not make any firm financial commitments on energy transition in developing countries. The group committed to COP27 decisions including funding arrangements to assist developing countries and adaptation efforts. The communique referred to the failure of developed countries to raise the targeted \$100 billion per annum but does not suggest measures to address this.
- **Carbon markets:** Rich countries have highlighted the need for ensuring high-integrity carbon markets and have released a set of "Principles for High Integrity Carbon Markets".
- **Industrial decarbonisation:** The grouping has reaffirmed its commitment to the Climate Club established in 2022 to enable industries to transition to climate-friendly processes and technologies. The grouping has recognised the threat of carbon leakage, in which enterprises move their operations to countries with lenient climate policies, but has not suggested any preventive measures.
- **Plastic:** Ministers of the member countries have committed to ending new plastic pollution by 2040.
- Overall, the G7 has indicated the energy transition priorities of its members by supporting solar and wind energy initiatives over low-carbon technologies and renewable hydrogen.

India's participation

- Environment Minister Bhupendra Yadav also attended the conference, which India was invited to as a 'guest' as part of its G-20 presidency.
- India had objected to terminology in the accord to "phase out" coal at the United Nations-Conference of Parties (COP) conference in Glasgow in 2021, instead pushing for a "phase down" of coal.

- India and China rely heavily on coal for energy, but numerous wealthy nations, like the United States, Japan, Canada, and Europe, rely heavily on gas supplies.
- India's strategy has been centered on the confluence of concerns relating to climate change, biodiversity loss, and pollution.
- This has resulted in the launch of initiatives focused on particular interventions, such as the International Solar Alliance (ISA), the Coalition for Disaster Resilient Infrastructure (CDRI), and Lead IT.
- It was stated that through Mission LiFE, India has also focused on action by all, including individual and communal acts.

Gum Arabic: Why Sudan War Could Hit Your Fizzy Drinks And Candy

Priority: **Medium**

Primary Source: Indian Express

Prepp Prelims Booster: Distribution of Resources

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora GS1 - Distribution of key natural resources across the world

Context:

- Recently, the conflict in Sudan has led to a possible shortage in stocks of gum arabic, a key ingredient in most consumer goods for which there are few substitutes.
- Gum arabic is used to bind the sweeteners and flavorings in soft drinks and as a stabilizer in candy, chewing gum, and baked goods.



What is gum arabic?

- **Gum arabic** is the natural gum produced by certain species of Acacia. The major source of the gum for commercial purposes is **Acacia Senegal**.
- The gum is obtained mainly from trees found in **North Africa i.e. the sub-Saharan area including the Sahel zone, Australia, India, and South America**.
- Sudan is the leading producer of gum arabic followed by other countries in the gum arabic belt such as Cameroon, Mali, Chad, and Nigeria.
- **In India, Acacia Senegal trees can be found in the rocky hills of southeast Punjab, the Aravallis, and drier regions of Rajasthan and Gujarat.**
- It was shipped to Europe from ports in Arabia, which led to it being named gum arabic.
- Food and drink companies use a spray-dried powder-like version of gum arabic in their manufacturing process.
- **Properties of gum arabic:**
 - It is non-toxic, odorless, and glassy in appearance.
 - It is insoluble in oils and other organic solvents but dissolves in hot or cold water.

- It is mainly composed of complex polysaccharides and their salts of magnesium, calcium, and potassium.

What are the applications of gum arabica?

Food:

- As a stabilizer in baking products and beverages.
- To prevent the crystallization of sugar.
- Acts as a foam stabilizer in alcoholic drinks and binds sweeteners and other flavorings in soft drinks.

Pharmaceutical:

- As a binder in tablets and in the preparation of drugs.
- As a stabilizer in emulsions.
- Used in syrups as an emollient (soothing agent)

Cosmetics:

- Acts as an adhesive in facial creams and powders.
- Arabic gum is also used to provide a soft and smooth feel to lotions and creams.
- It is also used in the paper, ink, textile, metal, and paint industries.

How have gum arabic stocks been affected?

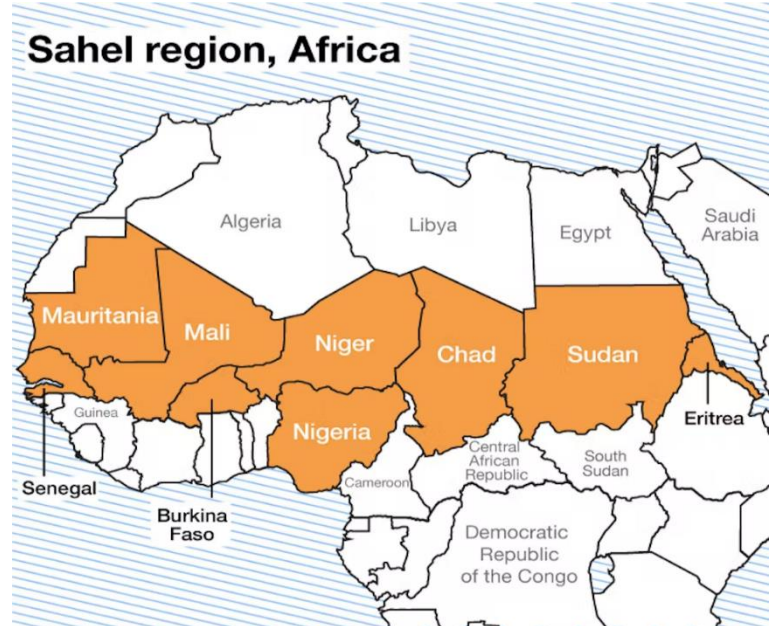
- The **conflict between the Military and a paramilitary unit called the Rapid Support Forces in Sudan** has led to fears over a potential shortage of gum arabic.
- The **Sahel region in Sudan provides around 70% of the global supply of gum arabic**, which does not have many effective substitutes.
- Companies like Pepsico and Coca-Cola, for whom gum arabic was an essential component of their formulations, have stockpiled three-to-six months' worth of supplies in order to avoid being impacted by the disruption.
- Experts have stated that, unlike previous conflicts which focussed on remote areas such as Darfur, the present conflict was based around Khartoum, the country's capital.
- The conflict has paralyzed the economy and disrupted basic services such as communication in Africa's third-largest country.
- The continuation of the conflict for a longer period could affect the production of finished consumer goods as the stocks of Gum arabic, which was a critical component of these goods, were expected to run out in 5-6 months.
- According to 12 exporters, suppliers, and distributors who were contacted by Reuters, the trade in gum arabic had collapsed entirely.
- **Traders and distributors have said that communications with their local contacts have been distributed due to the violence and Port Sudan, which was the major shipping port of the product, was prioritizing civilian evacuations.** These were the major reasons behind the halting of the gum arabic trade.
- Although manufacturers of cosmetics and print products may use substitutes for gum arabic in their manufacturing process, there were no such alternatives for beverage manufacturers.

Conflict in Sudan

- The authoritarian President of Sudan, Omar-al-Bashar was overthrown by the military in 2019 following public protests against his regime.
- A **Sovereignty Council** was formed as a power-sharing body of military officials and civilians to lead the country until elections scheduled for 2023. Abdella Hamdok was appointed as Prime Minister during the transition to civilian rule.
- The military overthrew the Hamdok government and installed General Burhan as the country's leader and his partner in the coup, General Dagalo of the Rapid Support Forces (RSF) as his second-in-command.
- However, the military and the RSF have disagreed on the terms of the transition and the integration of the RSF into the military.
- General Dagalo has recommended that the integration of the RSF should be completed in ten years while the military has demanded that it be completed within two years.
- The disagreements between the two forces have transformed into violent clashes around Khartoum, Darfur, and other parts of western Sudan.

Sahel Region

- The **Sahel region** is a climatic region in Africa that is **bordered by the Sahara Desert in the north and the Sudanian Savannah region in the south.**



- The term Sahel was derived from the **Arabic word for "coast"** and refers to the western edge of the Sharan desert.
- The Sahel region has a semi-arid climate and spreads across the Northern part of the continent between the Atlantic Ocean and the Red Sea.
- The Sahel region includes parts of **Senegal, Mauritania, Mali, Burkina Faso, Algeria, Niger, Nigeria, Cameroon, the Central African Republic, Chad, Sudan, South Sudan, Eritrea, and Ethiopia.**
- The inhabitants of the Sahel region are usually semi-nomads, who practice farming and **transhumance**.
- **Flora:** Acacia trees, desert scrubs, woodland, and grass species.
- **Fauna:** Gazelles, African wild dogs, cheetahs, lions.
- **Threats:** The region faced threats such as desertification, soil erosion, dust storms, terrorist attacks, and human rights violations by states.

U.K. To Join Asia-Pacific Trade Treaty

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Asia-Pacific Trade treaty

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

Context:

- Recently, U.K acceded to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), with Prime Minister Rishi Sunak describing the outcome as an example of "post-Brexit freedoms". The agreement will now need to be ratified by Westminster and each of the CPTPP countries.
- Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)—a free trade agreement between 11 countries in the Asia-Pacific: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam.
- After 21 months of negotiations, the UK has become the first European country to join.

What is the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)?

- The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is a **free trade agreement (FTA)** between Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, Peru, New Zealand, Singapore and Vietnam.
- The CPTPP was signed by the 11 countries on 8 March 2018 in Santiago, Chile.
- It succeeded the Trans-Pacific Partnership after the United States withdrew under former President Donald Trump in 2017.
- Membership of the CPTPP loosens restrictions on trade between members and **reduce tariffs - a form of border tax - on goods.**
- The 11 countries together account for about 13% of the world's income.



What would be the impact?

- **Economic benefits:** According to the British government, the agreement would result in zero tariffs on more than 99% of British exports, including products for key market including cheese, automobiles, chocolate, machinery, gin, and whisky.
- The arrangement, according to the government, was a **"gateway" to the Indo-Pacific area**, which will soon account for the majority (54%) of world economic development.
- **Geopolitical:** Additionally, as a CPTPP member, it will have a veto over China's decision to join the treaty. In September 2021, Beijing submitted an application to become a member of the bloc.
- **Commerce:** Downing Street emphasised **a few of the advantages of the CPTPP**, including **a reduction in whisky and auto tariffs** for British goods heading to Malaysia.
- The country's services industry, which makes up a sizable share of U.K. exports, will benefit greatly from the U.K.'s entry into the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).
- Services accounted for 43% of U.K. exports to CPTPP nations in the preceding year, according to Downing Street.
- **Ease of doing business:** British businesses will no longer need to have a local office or residency to supply services due to the U.K.'s membership in the CPTPP, and they will be free to compete on an equal basis with businesses in the host countries.

Limitations

- The UK already has bilateral trade agreements with some other treaty countries, such as Australia and Japan, which may limit the potential benefits of joining the CPTPP.
- Joining the CPTPP is unlikely to be transformational for the UK economy as Britain already has trade deals in place with nine of the 11 current members.
- The agreement would boost the U.K. economy by GBP 1.8 billion (\$2.2 billion) yearly. This, however, translates to a modest boost of 0.08% to GDP.

Way forward

With the UK's newfound freedom to strike independent trade deals, it is hoped that the country can capitalize on new opportunities and strengthen its economic ties with the rest of the world.

GENERAL STUDIES 3

Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment

India Set To Grow By 5.9% This Fiscal: IMF

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: IMF

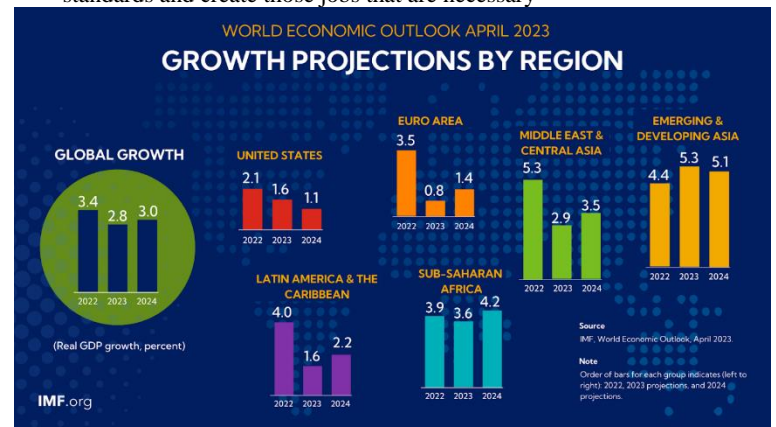
Prepp Mains Booster: Indian Economy

Context:

- Recently, the International Monetary Fund (IMF) said that it expects India's economy to grow 5.9% in the current fiscal year though it warned that turmoil in the financial system will hurt global growth.
- In its **World Economic Outlook: A Rocky Recovery report**, the IMF forecast global real GDP growth at **2.8% for 2023 and 3% for 2024**, marking a sharp slowdown from **3.4% growth in 2022** due to tighter monetary policies.

International Monetary Fund (IMF)

- The **International Monetary Fund (IMF)** revised its estimate of India's economic growth downward by 0.2 percentage points from January to 5.9% for the current fiscal year (April 2022 to March 2024).
- The IMF revised its previous forecast by 0.5 percentage points to a 6.3% economic growth rate for India in the upcoming fiscal year.
- The IMF had predicted in January that India's GDP will grow to 6.1% in FY24 and 6.8% in FY25.
- Despite the cut, **India will be the fastest-growing economy over the next two years.**
- **Inflation:** According to IMF projections, India's inflation rate will drop to 4.9% this fiscal year and further to 4.4% the next year.
- India's GDP prediction for FY24 was lowered last week by the World Bank and the Asian Development Bank to 6.3% and 6.4%, respectively.
- IMF economist, Daniel Leigh, said that a very strong economy is necessary to allow India to continue to converge towards higher living standards and create those jobs that are necessary



Global growth

- In the short term, the IMF expects global growth of 2.8% this year and 3% in 2024, slightly below its estimates published in January.
- The fund said that five years from now, global growth is expected to be around 3% — **the lowest medium-term forecast in a World Economic Outlook for over 30 years.**
- **Positives:** According to the IMF the global economy's gradual recovery from both the pandemic and Russia's invasion of Ukraine.
- Further China's reopened economy is strongly rebounding and supply chain disruptions are unwinding, and the negative impacts of the war on food and energy prices are receding.

- **Concerns: High inflation and recent financial sector turmoil** (collapse of Silvergate Capital, Silicon Valley Bank and Signature Bank in US and Credit Suisse in Switzerland) have dimmed prospects of a “soft landing” for the global economy after a period of high inflation and unsteady growth.
- **Growth in advanced economies: Modest growth** is predicted for advanced economies. The US is expected to grow 16% this year and 1.1% next year.
- Whereas, the Euro Area was predicted to grow by 0.8% and 1.4%, respectively. China is expected to expand by 5.2% this year and 4.5% the following year.
- The IMF noted that underlying pricing pressures are sticky and that labor markets across a number of nations **remain tight despite** the fact that inflation has decreased because of lower food and energy prices and rate hikes by central banks.

Way forward

- The IMF expects global GDP to stabilize at 3.0% in five years, which would be the lowest five-year forecast in decades if the recent financial sector pressures are managed.
- The WEO stated that the gloomy picture reflects the **stringent policy measures needed to lower inflation**, the consequences of the recent downturn in the financial sector, the ongoing crisis in Ukraine, and growing geo-economic fragmentation.
- The IMF advised central banks to adjust and deploy their full arsenal of policy tools while maintaining their anti-inflation stance.
- Governments should “aim for an overall tight stance”, the IMF said, while providing targeted support for those impacted most by the cost of living crisis.

The Growth Math: On India’s Growth Prospects

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Indian Economy

Prepp Mains Booster: Indian Economy

Context:

- Recently, two multilateral institutions World Bank in *South Asia Economic Focus: Expanding Opportunities: Toward Inclusive Growth report* and [Asian Development Bank](#) in *Asian Development Outlook* presented their regional economic outlook for this year, scaling down their projection for India’s growth prospects in 2023-24.

What is the regional economic outlook of Multilateral institutions?

- **World Bank:** The World Bank has pared India's real GDP growth forecast from 7% projected in October 2022 to 6.6% a few months earlier, finally to 6.3% recently.
- The primary reasons for the lowered GDP growth forecast are domestic factors such as an **expected increase in borrowing costs, which could negatively impact consumer demand, and a contraction in government consumption.**
- Further, the growth of the services sector is expected to decline to 6.7% from the previously estimated 9.5% growth rate for 2022-23, which is the lowest it has been in three years.
- **Asian Development Bank (ADB):** The Manila-based Asian Development Bank (ADB) in its report stated that a rebounding China’s and India’s domestic demand (which it believes will likely stay healthy) would lift up Asia’s growth prospects.
- However, the bank lowered its 2023-24 GDP growth forecast for India from 7.2% to 6.4%.
- The factors cited by the bank are **tight monetary conditions and fading optimism on business conditions** that it reckoned would lead to lower growth in private investments (that had only seen a fledgling post-COVID recovery till now).

- **Global issues:** Apart from these domestic issues, both agencies have cited the effects of the **existing challenging conditions in the global economy**, which are freshly exacerbated by a spate of **bank failures in the developed world** and resurfacing concerns about **raising oil prices** due to production cut OPEC + despite **slowing world demand.**
- **Impact:** The lower economic growth will impact job creation, collection of revenues by government, and private expenditure, and lower growth in developed countries would mean lower Indian exports which may in turn impact the flow of forex reserves.

Conclusion

- The Economic Survey and the Reserve Bank of India (RBI) have estimated India's growth for the year 2023-24 to be 6.5% and 6.4%, respectively.
- It will only be possible to get a clearer picture of the growth base for this year when the first estimates for the final quarter of 2022-23 are released at the end of May.
- The 2023-24 growth forecasts may be revised in the future depending on global conditions.
- Policymakers should ignore the noise these figures create and **focus on stress indicators** being raised in order to actively minimize any impending damage.

Consumer Inflation Eases To 5.66% In March

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Inflation

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

Context:

- Recently, retail inflation in India slid to 5.66% in March, which was just the third time in the previous fifteen months that it dropped to below 6%
- Overall, Indian consumers experienced average inflation of around 6.66% throughout 2022-23.

Recent Inflation trends

- Retail Inflation in India dropped below 6% for the third time in the last fifteen months to 5.66% in March 2023.
- The drop in prices was aided by the base effect as a rise of 7% was recorded in March 2022.
- The last time inflation had fallen to a similar level was in December 2021, after which prices had risen faster than the RBI’s tolerance level for ten straight months
- On average, Indian customers had experienced inflation of around 6.66% throughout 2022-23 which was higher than the 6.5% projected by the RBI in February.

Projections

- The RBI had paused the monthly rate hikes used to control inflation in its monthly monetary policy review in April.
- According to the RBI’s estimates, price rise was expected to fall to around 5.2% in 2023.
- The April-June quarter was expected to average around 5.1% versus a rise of 7.28% in the same period in the previous year.
- Month-month inflation had risen 0.23% in March on the Consumer Price Index (CPI) while the Consumer Food Price Index (CFPI) had risen 0.3%.
- As per data from the National Statistics Office, Food price inflation had eased to 4.8% in March 2023 from 7.7% in March 2022 and 6% in February 2022.

Consumer Price Index

- The Consumer Price Index is a price index that measures the average price of a basket of items in a given period.
- The CPI, which measures price fluctuations at the consumer level, has been classified into eight categories: education, foods and beverages,

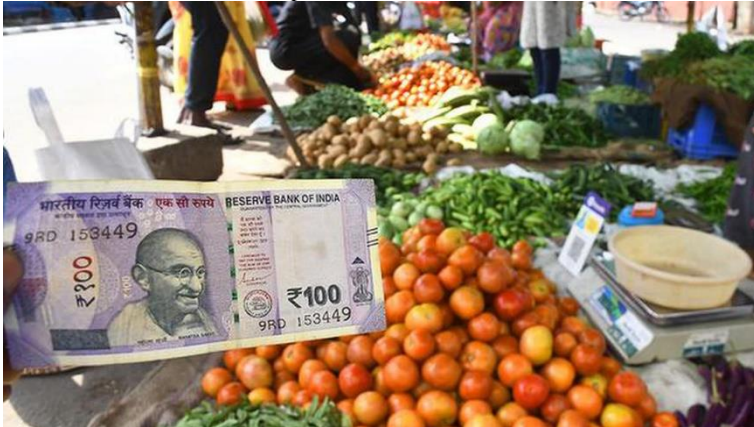
housing, communication, transportation, recreation, clothes and medical care.

- It is published by the NSO which is under the Ministry of Statistics and Programme Implementation.
- It is published on a monthly basis with 2011-12 as the base year.
- CPI is calculated as $CPI = (\text{Cost of market basket in a given year} / \text{Cost of market basket in the base year}) \times 100$.

To know more about CPI, click the link.

Rural-Urban and Food Inflation

- Rural consumers experienced a larger reprieve from inflation which eased to 5.51% in March from 6.7% in February while urban consumers only experienced a marginal reprieve from 6.1% to 5.89% in the same period.
- Among food commodities,
 - vegetables were observed to be in deflationary mode with prices dropping 8.5% on an annual basis.
 - Oil prices dropped consecutively with the previous year's price correction rising from 0.5% in February to 7.9% in March.
 - Meat and fish prices dropped 1.4% last month in comparison to March 2022 and a 3.4% inflation in February.
 - Fruit prices rose 7.6% in March from 6.4% in February while cereals eased from 16.7% to 15.3%, milk from 9.65% to 9.31% and spices from 20% to 18% in the same period.



Decline in Inflation

- According to the Chief Economist at the ICRA, housing (5% in March) was the only major sub-indices of the CPI that reported an uptick while all others experienced a sequential decline in March.
- The steep decline in headline inflation was aided by the high base effect as a result of which the inflation rate was expected to remain lower in the first quarter of 2023-24.
- Food price inflation was expected to ease significantly and fuel prices drop in 2023-24 on the assumption that the southwest monsoon would be normal and the limited impact of unseasonal rains in March 2023.
- **Core inflation** was projected to ease moderately due to the producers passing on the high input costs while the RBI was expected to hold interest rates unless prices rose beyond projections.
- Experts have also predicted that the Central Bank would cut interest rates in continuation of its decision to not increase rates this month as growth and inflation slowed down.

What is Core Inflation?

- Core inflation is Headline inflation minus the Food and Fuel inflation. Headline inflation refers to the rate of change in the CPI, a measure of the average price of a standard basket of goods and services consumed by a typical family.
- Core inflation measures the change in average consumer prices after excluding transient or temporary price volatility, such as in commodities like food and energy. It reflects an economy's inflationary trend.

- Core inflation is seen as a leading predictor of long-term inflation. This is significant because it is used to determine how rising prices affect consumer income.
- Housing, education, household goods and services, transportation and communication, entertainment and amusement, and personal care are the main components of core inflation.

India's Elevated Core Inflation

- India's elevated core inflation, which strips volatile food and fuel prices from the headline, has kept borrowing costs high.
- Even though the RBI's mandate is focused on managing headline consumer prices, core inflation has made its way into policy deliberations.
- The rising concentration of corporate power risks making inflation even more persistent and creating a vulnerability on the external sector front given India's outsized fiscal and cyclically sensitive current account deficits.
- After the global financial crisis of 2008, Indian inflation surged. This was due to a surge in food price inflation in India, driven by negative agricultural shocks and high procurement price hikes.
- It is true that while wholesale price inflation has eased very considerably in the six months preceding March 2023, consumer price (CP) inflation has not.
- The commodity basket corresponding to CP includes such items as housing, health, education, recreation and personal care which, naturally, do not enter the wholesale price index.

Jean Drèze Writes: Wages Are The Worry, Not Just Unemployment

Priority: **Medium**

Primary Source: Indian Express

Prepp Prelims Booster: Indian Economy

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment, Inclusive growth and issues arising from it

Context:

- The author, Jean Dreze, has argued about the need to shift the focus from unemployment to real wages in the article titled "Wages Are The Worry, Not Just Unemployment" published in the Indian Express on April 13th 2023.
- Real wages were more informative about economic growth and individual living standards and were easier to track than unemployment levels.

What are real wages?

- The Term "**Real wages**" refer to wages which have been adjusted for inflation.
- It is expressed in terms of the number of goods and services that can be purchased with an amount of money.
- It also represents the **purchasing capacity** of an individual's wages.
- However, Real wages are not clearly defined as the rate of inflation was variable and not always well defined.
- Unfortunately, real wages had not been given the attention it deserved with no mention of it in the Statistical Index of the Economic Survey or the Finance Minister's Budget Speech.

Real Wages vs Unemployment

- The majority of public debate on economic issues in India has been centred around the issue of unemployment rather than focusing on the issue of real wages.
- Unemployment metrics were not relevant when examining the economic condition of the poor in India. This was because unemployment was very low in this section as they could not afford to remain unemployed.
- In the absence of regular employment, they take up other avenues such as street vending and operating rickshaws.

- As a result, the majority of such people were not classified as unemployed in household surveys.
- According to experts, the major issue faced by the Indian poor was **underemployment**, which could not be accurately measured through surveys.
- On the other hand, real wages were much more informative about the state of the economy and the citizens.
- **A rise in real wages was likely to mean that workers were earning more and enjoying better conditions of life.**
- **A sustained increase in real wages was likely to result in economic growth translating into better jobs.**
- Stagnation or fall in real wages was a concern for the economy as it meant the workers/households could purchase much less than they could earlier with their wages.
- Real wages were a much easier statistic to track for analysts when compared to underemployment and unemployment.
- There was a well-defined wage for casual agricultural labour in rural India which could be calculated through simple enquiries and did not require household surveys to be conducted.
- If calculated at regular intervals, this would provide a fair representation of the wages in the economy which could be deflated against a price index to calculate real wages.



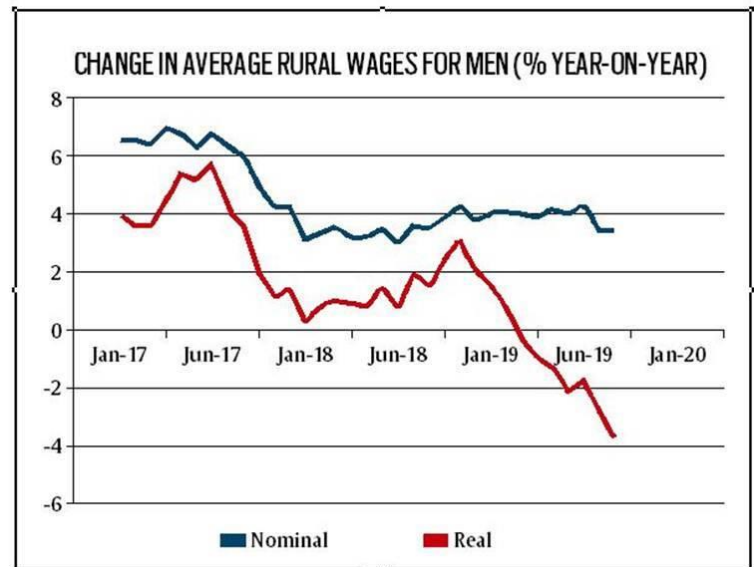
Real Wage-based data

- The **Labor Bureau** has been employing a similar strategy by collecting occupation-based wage data on a monthly basis from all the states.
- The data collected was then published in the Indian Labour Journal and was useful in assessing trends in real wages, despite there being doubts over the accuracy of the data.
- The RBI has presented annual wages estimates between 2014-15 and 2021-22 based on Labour Bureau data in the latest edition of the Handbook of Statistics of Indian States.
- The estimates which included only male workers from the following categories -
 - General agricultural labourers,
 - Construction workers,
 - Non-agricultural labourers
 - Horticulture workers(not available for all states).
- The nominal wage data could be easily converted into real wages using the **Consumer Price Index for Agricultural Labourers(CPIAL)**. This could then be used to calculate the growth of real wages using a semi-log regression of wages on time.
- The growth rate of real wages was found to be less than 1% per annum in all three categories analysed - agricultural labour(0.9%), construction workers(0.2%) and non-agricultural labour(0.3%) respectively.
- **If the CPIAL was replaced by the CPI as a deflator, the growth rates were observed to be even lower**, with the construction workers category suffering from negative growth rates.

- Although the RBI series only constituted data up to 2021-22, data from the Economic Survey has shown that this trend of stagnation persisted up to the end of 2022.
- Experts have concluded on the basis of this data that there has been no significant growth in real wages at the national level over the last eight years (2014-2022).
- An analysis of wages at the state level in the same period displayed a similar trend. The Annual growth rate of wages for agricultural labourers was above 2% in two major states - Andhra Pradesh (2.7%) and Karnataka (2.4%) - and declined in five major states Kerala, Punjab, Haryana, Rajasthan, and Tamil Nadu in the same period.

Way Forward

- Real wages were a statistic that must be paid more attention to by economists, policymakers and the general public as it provided a clearer understanding of the state of the economy and the living standards of households.
- Wage data collection had to be improved as the economy was rapidly growing while real wage growth was sluggish.
- A reorientation of economic policies was required to shift the focus onto real wage growth which has been neglected up to now.



SME Loan Delinquencies Will Continue To Rise For NBFCs: Moody's

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Indian Express

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment, Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

Context:

- Recently, a report released by Moody's has revealed that defaults on loans to small and medium enterprises from NBFCs will continue to rise as a result of interest rate hikes in the last year and the lack of financing options available.
- The RBI had constantly increased interest rates since May 2022 but paused the hike in the April meeting of the Monetary Policy Committee.

What has the Moody's report said?

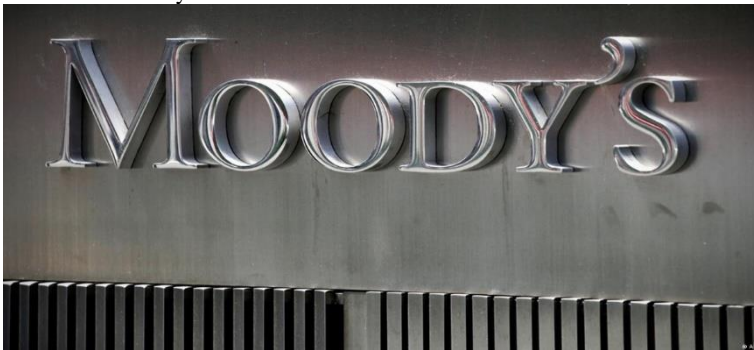
- Moody's Investors Service has reported that **defaults on loan payments made by Small and Medium Enterprises (SMEs) to Non-Banking Financial Companies** would continue to increase.
- The increasing default was caused by the interest rate hikes over the past year and the limited options for financing available.

- The rising interest rates, increasing costs amid inflation and a muted operating environment for small businesses have adversely impacted the ability of the borrower SMEs to meet their debt obligations.
- According to Moody's, the repayment amounts had increased on account of the interest rate hike and SME borrowers with **loans against property (LAP)** had limited options for refinancing.
- This had increased the risk of defaults and delinquencies, with loan delinquencies rates for LAP given to SME borrowers expected to rise.
- The report said that the situation was credit negative for **Indian Asset-Backed Securities (ABS)** backed by LAP.

- **Loan Against Property (LAP):** Loans secured by mortgaging residential or commercial real estate.
- **Asset-Backed Securities (ABS):** Financial securities which were backed by income-generating assets such as student loans, auto loans, home loans etc.

How has the RBI acted?

- The April meeting of the Monetary Policy Committee decided to pause the interest rate hikes which had been adopted by the RBI as part of its strategy to counter rising inflation.
- Since May 2022, the **repo rate** had been hiked from 2.5 to 6.5%. **The Marginal Cost of Lending (MCLR)** rate used as the benchmark to set lending rates for NBFCs had increased in line with the repo rate.
- The decision to halt the interest rate hikes was a temporary one according to the RBI Governor and was intended to assess the cumulative effect of the series of hikes which had already been conducted.
- The RBI stated that **monetary measures were insufficient to contain inflation and required the application of appropriate fiscal policy** as well.
- According to Moody's, rate hikes over the past had increased the funding costs faced by SMEs.



What are the effects of the defaults?

- As a result of the increased funding costs faced by NBFCs, they have increased the LAP interest rates, which are floating in nature, charged to small and medium-sized enterprises. This has led to an increased risk of repayment and refinancing for these loans.
- The report has stated that LAP borrowers would be less likely to refinance their debt on affordable terms if they could not meet repayment amounts.
- Moody's has warned that the **Indian economy would remain vulnerable to heightened financial market volatility while interest rates would remain restrictive in advanced economies, leading to an increased risk of LAP delinquencies.**
- The Moody's report had cautioned that repayment amounts would affect the capacity of the SMEs to repay debt even if the RBI were to continue its hold on interest rate hikes.
- Moody's also stated that the slow growth of property prices had curtailed the recovery prospects of the economy with property prices cooling across large Indian cities over the last year.
- The **slower growth of property prices has reduced the willingness of lenders to refinance LAPs.**

- However, the report also stated that LAP Asset-Backed Securities were well protected because of the deal's structural protections which would curb the losses faced due to the increasing delinquencies.

Is The Supremacy Of The U.S. Dollar Under Threat?

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Dedollarisation

Prepp Mains Booster: Effect of policies and politics of developed and developing countries on India's interests

Context:

- This article is written by Anand Srinivasan, a consultant, and Sashwath Swaminathan, a research assistant at Aionion Investment Services.
- In this article, they have cited various reasons relating to **de-dollarisation** and they also have opined that a real contender for the spot of the world reserve currency would have to be from an open society comprising democratic values.



What is de-dollarization?

- De Dollarisation refers to the deposing of the U.S. dollar from the reserve currency status it enjoys globally.

Factors indicating a shift towards de-dollarisation are

- **Depreciation:** The U.S. dollar has depreciated compared to many major currencies, including a decline of over 10% against the euro in the past six months. This is believed to be due to growth expectations favoring the European Union.
- **Rise in gold purchases:** The price of gold has risen in the past six months despite the Federal Reserve raising interest rates. Some attribute this rally to Russia and China buying large amounts of gold, seen as a retaliation against the U.S. dollar.
- **The weaponization of dollar:** Countries may prefer to distance themselves from a currency that can be weaponized by the U.S. government for geopolitical purposes, (sanctions imposed by the U.S. and its allies on Russia for its invasion of Ukraine)

Factors that state that dollar is still the reserve currency:

- **Investor confidence:** The United States is seen as a proponent of **open society and democracy.**
- The U.S. offers an open market which is an **attractive haven for investors** across the world who prefer liquidity, minimal capital control and minimal political influence on markets.
- Moreover, the **sanctions** levied by the U.S. against Russia are **not new.**
- It is therefore unwarranted to assume that the present sanctions on Russia will result in the U.S. currency losing its status as a safe haven for investors.
- Investors now have a great opportunity to purchase an asset that has been unduly damaged, also known as **out-of-favor assets**, due to the recent decline in the value of the U.S. dollar.

- Indian investors benefit greatly from investing in undervalued American equities that are currently available at bargain prices, primarily as a result of the weakening of the dollar.
- They stand to benefit from future windfall gains due to the anticipated strengthening of the dollar against the rupee as well as advantages from buying stocks at a discount.
- **Pause in interest rate hikes:** The recent interest rate hikes had caused the U.S. dollar to surge significantly before it started to **fall against the euro and other currencies.**
- The **collapse of Silicon Valley Bank** caused concerns about a potential banking collapse, leading the Federal Reserve to consider a pause.
- The depreciation of the dollar can be attributed to this temporary financial instability and the slowdown of interest rate hikes.
- **China:** In certain ways, nations that borrow from **China are obligated to them.** For instance, Sri Lanka has become trapped in debt as a result of excessive lending from China. Sri Lanka is compelled to assume additional liabilities.
- Additionally, China **forbids the yuan from floating freely** against other currencies. It is alleged to regularly devalue its currency as part of exchange-rate manipulation.
- Moreover, China has controlled **capital flows and does not allow** its citizens and firms to leave the country freely.
- China's export dominance has been attributed to a boom in population growth in the late 20th century.
- However, according to recent demographic data, China's population growth is slowing down and dropping (with a fertility rate below the replacement rate). China, therefore, does not yet constitute a serious threat to the dominance of the U.S. dollar.

Benefits of de-dollarization

- **Certainty:** Trading in local currencies would allow exporters and importers to balance risks, have more options to invest, to have more certainty about the revenues and sales.
- **Economic integration:** When countries use their local currencies for trade, it can promote closer economic ties and cooperation with trading partners, which can lead to increased trade volumes and deeper economic integration.
- **Geopolitical risk:** Countries that rely largely on the US dollar for trade may be exposed to currency risk since exchange rate swings can affect trade costs and profitability. For example, the dollar has been weaponized by the US by applying sanctions on Russia and Iran.

Advantages of Internationalization of Rupee

- **Increased worldwide acceptance:** Internationalization of the rupee can lead to more international transactions being undertaken in the rupee, reducing demand for other currencies and lowering exchange rate risks.
- **Reduced transaction costs:** The internationalization of the rupee can decrease transaction costs for Indian firms by eliminating the need to pay exchange rate fees when changing rupees into foreign currencies for overseas transactions.
- **Increased trade and investment:** The internationalization of the rupee can increase trade and investment by making it easier for foreign enterprises to invest in India and for Indian businesses to invest abroad.
- **Enhanced competitiveness:** A more freely traded rupee can boost India's competitiveness in global markets by allowing the currency to reflect the country's economic fundamentals and eliminating the need for the Reserve Bank of India to interfere in currency markets.
- **Diversification of reserves:** Internationalization of the rupee can diversify India's foreign exchange reserves away from a concentration on US dollars, decreasing the risks associated with holding a single currency.

Challenges of Internationalisation of Rupee

- **Exchange rate volatility** is the fundamental problem of internationalising the rupee since it may generate hazards for firms and

investors who operate in different currencies, leading to uncertainty and greater transaction costs.

- **Integration with global financial markets:** It necessitates integration with global financial markets, which can present obstacles in terms of regulatory compliance, market infrastructure, and investor protection.
- **Limited liquidity:** Because the rupee is not yet a widely traded currency, there is limited liquidity in global markets, making it harder for investors to acquire and sell rupee-denominated assets, which might limit the currency's appeal.
- **Undeveloped financial markets:** India's financial markets are still relatively undeveloped when compared to other major economies, which might limit the range of products and services available to overseas investors.
- **Regulatory challenges:** It necessitates a supportive regulatory framework that balances the demand for openness with the need for financial stability and regulatory oversight, which is difficult to achieve, especially given the intricacies of global financial markets.

Conclusion

- A real contender for the world reserve currency would need to be an open society that upholds democratic values.
- Governments with autocratic regimes, strict capital controls, opaque foreign exchange policies, and business restrictions would not be able to overthrow the dominance of the U.S. dollar as a reserve currency.
- Despite geopolitical tensions, investors generally prefer large, open, and liquid markets.

Foreign Trade Policy- 2023

Priority: **Medium**

Primary Source: PIB

Prepp Prelims Booster: Foreign Trade Policy-2023

Prepp Mains Booster: Industrial policy and their effects on industrial growth; GS 2 -Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Context:

- Recently, the Union Minister of Commerce and Industry, Consumer Affairs, Food, and Public Distribution and Textiles, launched the Foreign Trade Policy 2023.
- The Minister said that FTP-2023 is dynamic and open-ended to accommodate the emerging needs of the time.
- India's overall exports, including services and merchandise exports, have already crossed US\$ 750 Billion and is expected to cross US\$ 760 Billion this year.

What is Foreign Trade Policy-2023?

- The FTP-2023 will replace the current FTP 2015-20 – which expires on March 31, 2023. The new FTP comes into effect from April 1, 2023.
- The new policy was expected to be in place until 2028, there will be no end date to the new foreign trade policy, it will be updated as and when required.
- The current policy was extended several times because of global uncertainties such as Covid-19 pandemic and the Ukraine war.

The Key Approach to the policy is based on 4 pillars:

- Incentive to Remission,
- Export promotion through collaboration - Exporters, States, Districts, Indian Missions,
- Ease of doing business, reduction in transaction cost and e-initiatives and
- Emerging Areas – E-Commerce Developing Districts as Export Hubs and streamlining SCOMET policy.

Features

- The new foreign trade policy has highlighted the vision to take **India's goods and services exports to \$2 trillion (\$1 trillion merchandise exports and \$1 trillion services) by 2030.**

Foreign Trade Policy-2023 Highlights

- Four new towns of export excellence declared
- Continuation of export promotion schemes
- Reduction in user charges for MSMEs under EPCG/AA schemes
- Rationalization of status holder export thresholds to benefit smaller exporters
- FTP benefits for settlement of trade in Indian rupees
- All FTP benefits for e-commerce exports
- The value limit for export through courier increased to ₹10,00,000 per consignment
- PM Mitra scheme to be eligible for EPCG benefits
- Battery electric vehicles, green hydrogen, etc to have reduced EPCG export obligation
- Dairy to be exempt from maintaining the average export obligation
- Special Advance Authorization Scheme for the apparel sector
- Revamp e-certificate of origin to provide for self-certification
- Paperless filing of export obligation discharge applications

- Ease of doing business:** The FTP 2023 aims at process re-engineering and automation to facilitate ease of doing business for exporters.
- Focus on Emerging sectors:** It also focuses on emerging areas like **dual use high end technology items under SCOMET (Special Chemicals, Organisms, Materials, Equipment, and Technologies)**, facilitating e-commerce export, collaborating with States and Districts for export promotion.
- One-time Amnesty Scheme:** The new FTP is introducing a **one-time Amnesty Scheme** for exporters to close the old pending authorizations and start afresh.
 - One-time Amnesty Scheme under the FTP 2023 is intended to provide relief to exporters who have been unable to meet their obligations under EPCG and Advance Authorizations, and who are burdened by high duty and interest costs associated with pending cases.
- The FTP 2023 encourages recognition of new towns through **“Towns of Export Excellence Scheme”** and exporters through **“Status Holder Scheme”**.
- Towns of Export Excellence Scheme:** Four new towns, namely Faridabad, Mirzapur, Moradabad, and Varanasi, have been designated as Towns of Export Excellence (TEE) in addition to the existing 39 towns. This scheme is expected to boost, handlooms, handicrafts and crafts.
 - Towns producing goods of Rs. 750 Crore or more can be recognised as Towns of Export Excellence (TEE) based on potential for growth in exports. However, for Town of Export Excellence (TEE) in Handloom, Handicraft, Agriculture and Fisheries sector, the threshold limit is Rs. 150 Crore.
- Recognition of Exporters:** Exporting firms who have achieved a certain 'status' based on their export performance will now be encouraged to participate in capacity-building initiatives, where they will provide trade-related training to interested individuals using a model curriculum.
- This initiative, similar to the **'each one teach one' concept**, will help India develop a skilled workforce capable of contributing to a \$5 Trillion economy by 2030.

- The recognition norms for exporter firms have been adjusted to make it easier for them to achieve 4 and 5-star ratings, thereby enabling them to benefit from better **branding opportunities** in export markets.
- The FTP 2023 is facilitating exports by streamlining the popular Advance Authorization and EPCG schemes and enabling merchanting trade from India.
- The new policy will focus on the **internationalization of trade in rupees.**

Way forward

India's new foreign trade policy is pragmatic and positive, and has set a stage for exporters to increase the country's share in global trade and will help India in becoming \$5 Trillion economy by 2030.

Explained | Will Consumers Now Have To Pay For Transactions Made With PPIs Via UPI?

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: UPI

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

Context:

- Recently, the National Payments Corporation of India announced that banks could levy charges on merchant transactions made using Prepaid Instrument Wallets using RBI.
- Normal bank-bank transactions via UPI will not be charged under the new rules and customers will not be charged directly either.

What has the NPCI directed?

- The National Payments Corporation of India recently issued a notification to banks permitting them to levy charges on merchant transactions made through Prepaid Instruments wallets using UPI.
- The NPCI has clarified that normal bank-to-bank transactions would not be charged and that customers would not be required to pay for transactions made by PPI on UPI.
- The new interchange charges were only applicable on merchant transactions via PPIs similar to charges levied on card transactions to cover the transaction cost.



What are PPIs?

- A Prepaid Instrument refers to a payment method which could be used to pay for goods or services and transfer money using the value stored in the wallet.
- The wallet had to be pre-loaded with money beforehand against cash, debit to bank accounts, debit or credit cards or any other legal payment method.
- PPIs, which can only be used to transact in Indian Rupees are available in the form of mobile wallets, smart cards, secure tokens, vouchers, or any other method permitting access to prepaid funds.

What is PPI Interoperability?

- Initially, the merchant had to be directly engaged with the specific PPI issuer in order for the customer to use his/her PPI instrument.
- PPIs which were not connected to the merchant would be rejected. In this manner, wallet users could only use their wallets to pay for services at merchants who had tied up with the same wallet provider.
- In order to counter this limitation faced by PPI users, the RBI mandated interoperability among the different PPI service providers.
- In order to implement the RBI directive, the PPI operators partnered with the NPCI to:
 - Issue interoperable RuPay PPI cards
 - Create interoperable wallets on UPI services
- This permitted Prepaid Instruments to be connected to UPI allowing for the creation of interoperable wallets on UPI rails.

How does PPI Interoperability on UPI work?

- Customers can transact using Scan and Pay on all interoperable UPI QR codes once they have linked their PPI wallets to UPI.
- This has allowed users to send or receive money to the user of any other wallet and use their PPI wallets at any merchant location.
- Merchants with any QR code can receive payments from any other PPI or wallet holder.
- The link of PPI to UPI was expected to speed up the growth of merchant transactions in rural areas and contribute to digital financial inclusion through its increasing adoption in sectors such as healthcare, education, transit, utility bills, etc.

Who has to pay these charges?

- PPI-enabled merchants were already required to pay the PPI issuer for accepting prepaid cards or mobile wallets.
- The new directive of the NPCI has standardized charges across the system at the network level.
- Merchants will still be able to work with their preferred PPI issuing entity.
- Prepaid payment instruments will be levied with an interchange fee of up to 1.1% from April 1, 2023, for transactions on UPI.
- The charges were applicable for transactions worth more than ₹2000 but payments made from the customer's bank account would not be charged.
- Only transactions made through the PPI wallet following customer consent would be charged the prescribed fee.
- Although customers would not have to pay any direct charges, the new charges could be passed onto them by merchants in the form of increased prices or other sales techniques.

NPCI

- The National Payments Corporation of India or NPCI was established in collaboration between the RBI and the All India Banks Association under the Payments and Settlements Act, 2007.
- It is a not-for-profit under Section 8 of the Companies Act, 2013.
- Its objective was to provide the necessary infrastructure for physical and electronic payment settlement.
- It is the umbrella body for all retail payment services in the country.
- The NPCI had developed a domestic card scheme called RuPay.
- The NPCI was also responsible for implementing the UPI system which permits the seamless transfer of funds around the clock.

A Big Fat Problem In Milk: What's Driving Up Prices?



Priority: **Medium**

Primary Source: Indian Express

Prepp Prelims Booster: Indian Economy

Prepp Mains Booster: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment, Government Budgeting, economics of animal-rearing, Food processing and related industries in India

Context:

- Recently, the price of milk has been increased by cooperative federations such as Amul, Nandini and Aavin on account of a shortage of fats.
- The shortage of fats was attributed to the increased exports when milk production had stagnated or dropped under the effects of the Covid-19 pandemic.

Trends in milk prices

- The prices of Amul's full-cream milk "Gold" and toned milk "Taaza" were increased from ₹62-66 and ₹52-54 respectively.
- India's second-largest dairy, the Karnataka Cooperative Milk Producers' Federation had effectively raised the price of its full-cream variant of milk by 45.56 per litre.
- The Tamil Nadu Cooperative Milk Producers' Federation or Aavin had raised the price of its full-cream milk by ₹12 per litre and replaced standardised milk (intermediate 4.5% fat and 8.5% SNF content) with cow milk (3.5% fat and 8.5% SNF) in certain markets such as Coimbatore, Tirunelveli and Madurai.

Why have prices increased?

- The primary factor behind the rise in milk prices was the **shortage of fat** which had forced dairies to either raise prices, cut down fat content or rebrand existing products.
- Recent reports have highlighted a shortage of butter and ghee in markets due to the lack of availability of fats.
- The President of the Indian Dairy Association has linked this situation to the lower contribution of buffaloes to national milk stocks.
- The **share of Buffalo milk, which has an average of 7% fat and 9% SNF content in comparison to the 3.5% and 8.5% of cow milk, fell from 56.9% in 2000-01 to 46.4% in 2021-22**. Buffalo milk, with 15-16% solids, was preferred by tea shops as well because it could be diluted and served as creamier tea.
- In the same period, the share of exotic cows has risen from 18.5 to 32.8% and the share of indigenous cattle declined from 24.6 to 20.8%.
- The demand for milk products such as ice cream, ghee, khoa, paneer, cheese, etc had risen, but the **majority of milk supplied was from exotic cows which were low in fat. This mismatch between supply and demand to an increase in prices.**
- India exported around 33,000 tonnes of butter, ghee and anhydrous milk fat in 2021-22 amounting to around \$1281 crores. This had further contributed to the rise in prices of fats in the country.

EXPORTS OF MILK FAT *

Fiscal (Apr-Mar)	Quantity (tonnes)	Value (₹ crore)
2019-20	22745.40	808.59
2020-21	15599.62	717.17
2021-22	33017.06	1281.15
2022-23 **	15961.75	816.48

*Includes ghee, butter and butter oil

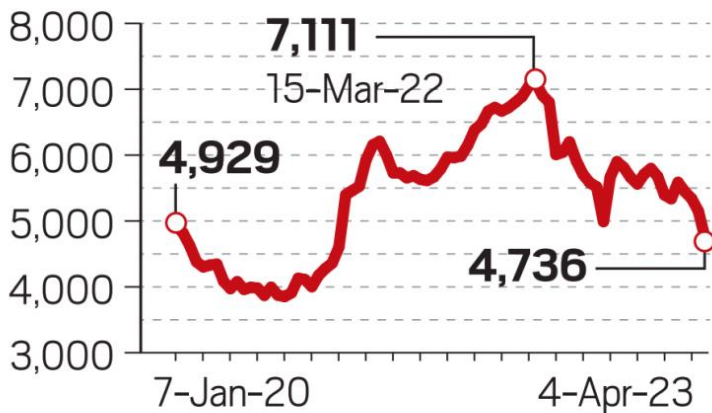
**April-January

Source: Department of Commerce

- The increase in exports coincided with lowered milk production as a result of farmers resorting to underfeeding and reducing the sizes of their herds.
- Farmers were forced to adopt such techniques due to the lower prices of milk during the Covid-19 pandemic, the escalation in costs of fodder and livestock feed, and an outbreak of the lumpy skin disease in cattle in India.
- The supply-side pressures escalated in coincidence with the return of demand as lockdown restrictions were restricted and the subsequent resumption of economic activity.
- Exports, which were enabled by the skyrocketing of fats prices from \$3,850 per tonne to \$7,111 per tonne between September 2020 and March 2023 worsened the domestic situation.
- The ex-factory prices of cow (yellow) and buffalo(white) butter rose from ₹225-275 during the pandemic to ₹420-430/kg in 2023. However, reports that the government planned to lower the import duty on milk fats have resulted in an easing of the prices of both white and yellow butter.
- The Union Ministry of Animal Husbandry and Dairying has denied that the import duty on milk fats would be lowered but the fall in global fat prices to \$4,750 per tonne has made imports a viable option.

INTERNATIONAL ANHYDROUS MILK FAT PRICES

US \$ pe tonne



Source: Global Dairy Trade average fortnightly auction prices.

Variations in milk production

- It was expected that high prices would incentivize farmers to invest in animals and raise their productivity.
- The period between October and March was the flush season when the supply of milk exceeded demand.
- In this period, dairies converted the surplus into skim milk powder and butter fat by separating the cream and removing the water in skimmed milk through evaporation and spray drying.
- The skimmed milk powder and fat were later reconstituted into whole milk during the lean season between April and September when the supply is low and demand is high for milk products such as ice cream, lassi and curd.
- No other farm produce can be reconstituted into solids by adding water.
- In the 2022-23 flush season, milk procurement fell which reduced the surplus stock available for dairies to convert into fat and powder.
- Production was likely to fall further during the lean season which could lead to an increase in demand for milk solids in order to reconstitute it into whole milk.

GST anomaly

- Milk did not attract any GST while Skimmed milk powder was taxed at 5% and milk fat at 12%.
- As a result, dairies did not have to pay taxes on milk procured from farmers but had to pay GST on milk solids.
- Input tax credits could not be claimed on milk, as it was not subject to GST. However, tax incidence would increase as the content of fat in reconstituted milk increased.
- The addition of GST on fat and SMP would lead to an increase in prices to ₹67.49 per litre on account of the use of fat in reconstitution.
- The GST component of the price, which was around ₹5.35 per litre was ultimately passed on to the customer.

Way Forward

- The passing on of GST to the customer could be avoided by eliminating the GST on milk solids used in the reconstitution of milk.
- Another method was to reduce the GST on milk fats to 5% from the present 12%.
- The differential rates of taxing of fats (12%) and milk solids(5%) and of milk fats(12%) and vegetable fats (5%) were illogical as both were derived from milk.

Agriculture

What Is The Open-Source Seeds Movement?

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Open Source Seeds Movements

Prepp Mains Booster: Agriculture; Issues relating to intellectual property rights.

Context:

- This article is written by Krishna Ravi Srinivas with the Research and Information System for Developing Countries, New Delhi.
- In this article, the author talks about the need for an open-source approach to sharing seed varieties that would allow farmers to share and improve upon seed varieties without fear of legal repercussions.

Parallelism between Open Source Software and Open Source Seeds

- The origin of Open source software concept can be traced to the 'Free Software Movement', which emphasised users' right to the source code, to share, to modify, and to distribute modifications.
- **Examples:** GNU/Linux, VLC Media Player, Mozilla Firefox and etc..
- The U.S. programmer Richard Stallman pioneered this idea and developed the General Public License (GPL), the first of the 'Free and Open Source Software' licenses: it used copyright law to protect users' rights and prevent misappropriation.
- If a piece of code is licensed GPL, then modifications to it should be GPL as well; this requirement also furthered the use of the license.
- Like programmers, farmers have innovated and shared seeds without any Intellectual Property Rights (IPR) claims for centuries and also haven't sought exclusive rights over seeds and germplasm to prevent others from innovating on the seeds.
- Germplasm is the term used to describe the seeds, plants, or plant parts useful in crop breeding, research, and conservation efforts.
- In this regard, software and seeds actually have a strong parallel.

How did plant breeders' rights impact farmers?

- **Payment of royalties:** The rise of hybrid seeds, the commercial seed industry, and scientific plant breeding resulted in the establishment of **plant breeders' rights (PBR)** that limited farmers' rights and allowed rights holders to demand royalties on seeds.
- **Restriction of unauthorized use:** In some countries, PBR regulations enabled rights holders to restrict the unauthorized use of seeds to develop new varieties.

- **IPR:** Additionally, the World Trade Organization and the Trade-Related IPR Agreement brought a global IPR regime over plant varieties.
- The TRIPS required countries to provide at least **one form of IP protection**.
- **Dominance of private sector:** While the Green Revolution was initiated by public-sector breeding institutions and open-pollinated varieties were available to farmers, **the genetic revolution in agriculture was led by the private sector**.
- Most seeds were made available as hybrids and/or protected by strong IPRs, limiting farmers' freedom to cultivate, reuse, and share.
- **IPR protection in agriculture:** Two forms of IPR protection in agriculture are Plant-breeders' rights and patents. They restrict farmers' rights and the freedom to develop new varieties using germplasm from IP-protected varieties.
- This in turn has furthered the **consolidation of the seed industry** and increased the variety of plant species protected by IPRs.
- For instance, in India government had to intervene **because of high prices of genetically modified seeds (Bt cotton seeds)**
- This is when the success of open-source software inspired a solution. In 1999, a Canadian plant breeder named T.E. Michaels suggested an approach to seeds based on the principles of open-source software.



What are Open Source Seeds Movements?

- Open-source seed refers to genetic varieties of seeds that can be freely used and modified (e.g. through cross-breeding).
- open-source Movement is based upon sharing seed varieties that would allow farmers to share and improve upon seed varieties without fear of legal repercussions.
- In 2002, Boru Douthwaite and the author, Krishna Ravi Srinivas (independently) proposed an open-source model for seeds and plant varieties. The author called it the "BioLinux model".
- The "**Open Source Seeds Initiative**" (OSSI) was introduced in Wisconsin in 2012 by Jack Kloppenburg, whose 1988 book *First The Seed* alerted readers about the changes in the seeds industry and the exploitation of intellectual property to restrict farmers' rights.
- A few years later, another project was started in Europe by the German NGO Agrecol.
- The strategy used by Agrecol to comply with European legal requirements is based on a **contracts-based approach**, in which the user promises, among other things, **not to patent seeds purchased under an open-source license**.
- The OSSI simply asks for a pledge that an individual won't "restrict others' use of these seeds or their derivatives by patents or other means."
- **India:** The **Apna Beej Network's** Hyderabad-based Centre for Sustainable Agriculture (CSA) established the idea and developed an agreement with the person receiving the seed/germplasm in India.
- This strategy is being attempted by the CSA's Open Source Seeds Program through three farmer-producer organizations (FPOs).

- This is comparable to Agrecol's technique of utilizing a contract to "shrinkwrap" a license in contractual obligations.
- Globally, the number of seed firms using open-source models and the crop varieties and seeds made available thereunder is small but growing. India is yet to test and adopt it widely.
- The **Plant Variety Protection and Farmers' Rights Act (PPVFRA) 2001** in India allows farmers to register varieties as "farmer varieties" if they fulfill certain criteria, giving them the right to reuse, replant, and exchange seeds.
- However, they are not permitted to breed and sell varieties protected under the Act for commercial purposes.
- By utilizing the open-source seeds approach, farmers can potentially gain greater control over germplasm and seeds, leading to more innovation.

Way forward

- The open-source approach could be applied to farmer-led seed conservation and distribution systems, which are already active in India and often focus on unique traditional varieties.
- Using the open source model could help promote wider adoption of these varieties by allowing farmers to gain more rights over the germplasm and seeds, and facilitating testing, improvisation, and adoption.
- The model can also be used to promote farmer-led participatory plant-breeding exercises, which could improve the quality and uniformity of traditional varieties, benefiting India's food security and climate resilience.

How Excess Rains In March Could Affect The Wheat Crop In India

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Agriculture

Prepp Mains Booster: Major crops-cropping patterns in various parts of the country

Context:

- Recent unseasonal rains in March have damaged wheat, mustard, and onion crops in some states and raised the risk of an increase in prices.
- Climate change is worsening the frequency and intensity of extreme weather events.



Recent trends

The rabi (winter-spring) cropping seasons of 2021-22 and 2022-23 have been unusual in terms of weather and yield loss, especially in wheat.

- **2021-22:** The 2021-22 rabi season was marked by Excessive rain. India received rainfall that was way above the "normal" long period average in every month from September 2021 to January 2022.
- This was followed by the **hottest-ever March** in terms of average maximum temperatures.

- The unusual heat of March 2022 led to lower wheat production as the **spike in temperatures** happened during the grain formation and filling stage when the kernels were accumulating starch and proteins.
- This stage, which determines the size and weight of the harvested grains, was cut short with maximum temperatures **crossing 35 degrees Celsius by mid-March**.
- According to Agriculture Ministry claimed that last year's wheat output at 107.74 million tonnes (mt), a marginal decline of 1.7% from the all-time-high 109.59 mt of 2020-21, the private trade estimated the crop to be 10-15% lower at 93-98 mt.
- The government's own procurement fell to 18.79 mt, as against 43.34 mt in the previous marketing season, and **wholesale wheat inflation crossed 20% year-on-year by December, even after a ban on exports**.
- **2022-23:** In contrast to 2021-22, 2022-23 was mainly dry. The four months from November 2022 to February 2023 saw insufficient rainfall, and the winter was very dry. In addition to having 68.3% less rain than average, February 2023 was also the warmest February on record in terms of the average maximum temperature, just like March in 2022.
- Contrary to India Meteorological Department (IMD) forecast of March 2023 to be "above normal" temperatures over most parts of the country.
- However, March turned out to be neither **hot nor dry**. Contrary to initial fears, temperatures remained well within the 35-degree limit that is the most conducive for grain-filling in wheat.
- In March 2023, there was an **unexpected amount of rain**, which exceeded the average by 25.8%.

How does the rain affect wheat yields?

- Wheat is vulnerable to **both heat stress and rain/ thunderstorms** during the terminal grain filling and ripening period (when the crop's earheads are heavy with grains).
- The crop that has accumulated more weight from grain filling is highly vulnerable to rain. These, when accompanied by high-velocity winds, make the stems prone to **"lodging" or bending and even falling flat on the ground**.
- According to the farmers, the yield losses were likely to be the highest in areas that saw **waterlogging and hail**.
- According to a Principal Scientist at the New Delhi-based Indian Agricultural Research Institute.
- Production losses may be more during harvesting than due to **lodging or reduced crop yields**.
- Wet and dried crop earheads become brittle and tend to break from the stem, making them difficult to harvest with combine machines.
- Lodging of wheat primarily occurred after March 22, when the grain-filling stage was almost complete for the crops that were sown before mid-November in most parts of Punjab and Haryana.
- The crops sown in December in eastern Uttar Pradesh and Bihar may benefit from the current rain, which has reduced temperatures and extended the grain-filling period

Would wheat prices go up if production falls?

- The wheat prices are **unlikely to go up** because wheat prices at the Chicago Board of Trade futures exchange are now at just over \$254 per tonne compared to the \$500-plus peaks that were scaled in March 2022.
- The last year's failed domestic crop coincided with a period of soaring global commodity prices triggered by Russia's incursion into Ukraine.
- Currently, the world has overcome the effects of the war and it is very **unlikely to see a resurgence of cereal inflation** even if the wheat output in India falls to 2021-22 or lower.

How Have Recent Weather Events Affected Wheat Crop?

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Geography

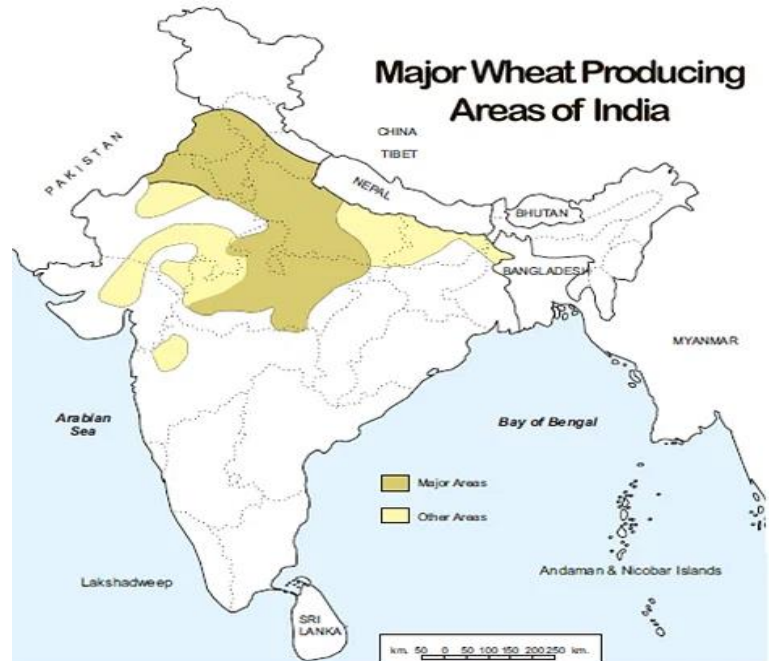
Prepp Mains Booster: Environment; Agriculture

Context:

- The unusually high temperature in February this year, with an untimely spell of widespread rain accompanied by gusty winds and hail during the month of March in parts of the country's key grain-producing States has worried wheat-growing farmers, who expect a drop in yield, output, and quality.
- The key grain producing states are- Punjab, Haryana, Madhya Pradesh, Uttar Pradesh, Rajasthan, Bihar, and Gujarat.

About Wheat Crop

- Wheat, an important rabi (winter) crop, is seeded from late October to December; it reaches maturity in mid-March, and harvesting of early-sown types normally begins by the end of March.
- **Temperature:** 10-15°C (sowing period) to 21-26°C (ripening and harvesting) with bright sunshine.
- **Rainfall:** Around 75-100 cm.
- **Soil Type:** Well-drained fertile loamy and clayey loamy (Ganga-Satluj plains and black soil region of the Deccan).
- The success of the Green Revolution contributed to the growth of Rabi crops, particularly wheat.
- Few government initiatives to support wheat cultivation include the **Macro Management Mode of Agriculture, the National Food Security Mission, and the Rashtriya Krishi Vikas Yojana**.



How will the rains affect the wheat crop?

- The India Meteorological Department (IMD) stated that widespread rains and stormy winds of 40-50 kilometers per hour pounded various portions of the country's key wheat-growing states throughout March, due to the effect of repeated western storms.
- Rain and wind are not regarded as favorable signs for crop health if they are close to ripening and harvesting, especially if there is water logging in the fields.
- There have been reports of crop flattening in fields, as well as water logging, which might be hazardous to the ready-to-harvest wheat crop.
- According to the IMD statistics, considerable surplus rainfall (40% more rain than average) was obtained in numerous states between March 1 and April 9.

Impact on the output

- According to Agriwatch, an agri-commodity research organization, the country's wheat output in the agriculture year 2022-23 is anticipated to be 102.9 MT, which is fewer than the Union government's projection of 112 MT.

- Despite a minor output loss owing to recent bad weather conditions, the Centre is hopeful that wheat production will be close to 112 MT this season due to greater wheat acreage (area) and higher yield.
- According to the ministry, the average wheat acreage this year (2022-23) is 14,86,240 hectares greater than the previous five years (2017-2021), which stood at 30,382,010 hectares.

Significance of Wheat to Indian Economy

- Wheat is the second most significant grain crop in the world. It is the primary food crop in the country's north and northwestern regions. India is the world's second-largest wheat producer, accounting for around 14% of global production.
- Every year, India produces around 110 MT of wheat. A large portion of it is used for domestic consumption.
- India exports less than 1% of the world's wheat.

What will be the consequences?

- If the country's wheat production falls short of the government's prediction, domestic wheat and wheat-based product prices may rise.
- Any decrease in wheat output may potentially pose a threat to foodgrain security.
- If the government claims that wheat output will not be adversely affected by bad weather, it suggests that the wheat purchasing program will stay the same from last year.
- In such a case, the private player will buy wheat at the Minimum Support Price (MSP) or with some sort of incentive.
- The domestic wheat price should be unaffected because the government's primary aim will be to restock its food grain supply.
- If output is lower, the government's ability to intervene in the market is less likely, as its priority would be to preserve the buffer stock.

Wheat Procurement: Relief Amid Fear Of Inflation, Poor Monsoon

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Agriculture

Prepp Mains Booster: Major crops-cropping patterns in various parts of the country

Context:

- The **procurement of Wheat by government agencies has reached 20.5 million tonnes (mt) in the ongoing Rabi Marketing Season (RMT)**.
- It has already surpassed the 18.8 mt for the whole of last season, indicating a greater yield this time.

Background

- Wheat procurement, which began late owing to delayed harvesting in northern regions, has surpassed government agency acquisitions of 18.79 million tonnes for the entire year 2022.
- According to the recent data, purchasing increased by 31% year on year to 19.52 million tonnes (mt) from 14.89 mt the previous year. For this year, the procurement target has been fixed at 34.15 mt.
- The heat wave last year had damaged the crop, combined with surging prices fueled by export demand and the Ukraine war, resulted in governmental wheat purchases falling to their lowest level since 2007.
- This year's crop has also been harmed by unseasonal rains in the second part of March, although productivity does not appear to have fallen as much.

Fear of Inflation and poor monsoon

- A series of connected circumstances implied that the unseasonal heat in India currently, along with a potentially bad monsoon, could make buying homes and other assets on loan more expensive for Indians.
- While India has experienced an early onset of summer-like conditions, agriculture experts were concerned that this will have a negative impact on the country's wheat and other crop production.

- The anticipated beginning of the El Nino effect (a cyclical weather trend) might lower the chances of a regular monsoon, further reducing India's agricultural production.
- It was observed that lower agricultural yields, in turn, fuel food inflation. At the same time, core inflation, which is total inflation excluding fuel and food, remains troublingly sticky and a source of concern for the Reserve Bank of India's Monetary Policy Committee (MPC).
- The India Meteorological Department (IMD) indicated in a release that the monthly maximum temperatures for March 2023 are likely to be above normal over most parts of the country except peninsular India, where normal to below normal maximum temperatures are likely.
- It was observed that the exceptionally high temperatures in February and March may harm wheat and other crop productivity.



About Wheat Crop

- **Wheat, an important rabi (winter) crop**, is seeded from late October to December; it reaches maturity in mid-March, and harvesting of early-sown types normally begins by the end of March.
- **Temperature:** 10-15°C (sowing period) to 21-26°C (ripening and harvesting) with bright sunshine.
- **Rainfall:** Around 75-100 cm.
- **Soil Type:** Well-drained fertile loamy and clayey loamy (Ganga-Satluj plains and black soil region of the Deccan).
- The success of the Green Revolution contributed to the growth of Rabi crops, particularly wheat.
- Few government initiatives to support wheat cultivation include the **Macro Management Mode of Agriculture, the National Food Security Mission, and the Rashtriya Krishi Vikas Yojana**.

Contribution to the progressive procurement

- The three wheat procuring **states of Punjab, Haryana, and Madhya Pradesh contribute significantly to the procurement**.
- One of the major factors, contributing to the progressive procurement this year, is the grant of relaxation by GOI in quality specifications of wheat being procured, in view of untimely rains leading to luster loss. This will reduce the hardship of farmers and check any distress sale.
- The Central Government has also permitted all states to establish procurement centers at the village/panchayat level and to conduct procurement through Co-operative Societies/ Gram Panchayats/ Arhatias, etc.
- The total stock position of wheat and rice in the Central Pool has surpassed 510 LMT, putting the country in a good position to satisfy its food grain requirements. Food grain storage levels in government granaries are increasing due to continued procurement of wheat and rice.

Significance of Wheat to Indian Economy

- India's wheat harvest is the biggest globally after China. It's a staple in the local diet and important for food security.
- Wheat is the second most significant grain crop in the world. It is the primary food crop in the country's north and northwestern regions.
- India is the world's second-largest wheat producer, accounting for around 14% of global production.

- Every year, India produces around 110 MT of wheat. A large portion of it is used for domestic consumption. India exports less than 1% of the world's wheat.

Infrastructure, Energy, Ports, Roads, Airports, Railways etc., Government policies and interventions

How Incentives For Small & Medium Battery Component Suppliers Can Bolster EV Adoption



Priority: **Medium**

Primary Source: Down to Earth

Prepp Prelims Booster: Science and technology

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

Context:

- Recently, the Small Industries Development Bank of India (SIDBI) announced a new scheme, Mission 50K-EV4ECO, which is intended to boost the adoption of EVs in India.
- The Scheme was however lacking in supply-side initiatives that could help stimulate the entire value chain.



What is Mission 50K-EV4ECO?

- **Mission 50K-EV4ECO** was introduced by the **Small Industries Development Bank of India or SIDBI** in order to quicken the adoption of Electric Vehicles (EVs) in the country.
- The pilot phase of the Mission was focused on **increasing the adoption of electric two-wheelers, three-wheelers, and four-wheelers through direct and indirect lending support to aggregators, fleet operators and leasing enterprises.**
- SIDBI would provide direct loan facilities to eligible small and medium enterprises which could be used for purchasing EVs and developing charging infrastructure such as battery swapping technology.
- SIDBI aimed to assist the entire EV value chain through the Mission and aimed to support the adoption of EVs on the demand side.
- The Scheme was expected to support the industry as the **FAME-2 Scheme** of the Union Government was expected to end in March 2024.

What are the drawbacks of the Mission?

- A major criticism of Mission 50K-EV4ECO was its **failure to include crucial supply-side incentives** that would encourage growth throughout the sector.
- One such component was batteries, which accounted for 25-30% of the total cost of the EV.
- The manufacture of Lithium-ion batteries, which were the most popular in the sector, comprised multiple steps such as electrode preparation, cell and battery pack assembly, testing and other steps involving advanced machinery.

- At present, the battery manufacturing industry was skewed towards the assembly of battery packs and relied on imported Li-ion cells.
- Concerns associated with the reliance on imports included the suitability of the design and chemistry of the battery to the Indian environment, operational safety and vulnerability to supply chain shocks.
- Components involved in the manufacturing of cells were found only in certain areas which led to increased costs and exposure to supply chain vulnerabilities.

PLI Scheme for Batteries

- The **Central Production Linked Incentive Scheme for Advanced Cell Chemistry Battery Storage** has incentivised the establishment of gigafactories which were capable of integrating all the sub-processes involved in the manufacture of batteries in a single facility.
- The ₹18,100 Scheme was approved by the Union Government in 2021 under the Union Ministry of Heavy Industries.
- The Mission was also called the **National Programme on Advanced Chemistry Cell Battery Storage (NPACC).**
- The Scheme incentivizes products manufactured in domestic units on the basis of incremental sales.
- It also encourages foreign firms to set up manufacturing units locally.
- The Scheme will aim to set up Advanced Chemistry Cell Manufacturing Facilities in the country and achieve a domestic value addition of 60% within five years.
- However, the **PLI Scheme had stipulated a minimum mandatory investment of ₹225 crores** which favored the larger businesses.

Alternative Strategy

- An Automotive component supplier ecosystem had flourished in the existing Internal Combustion Engine (ICE) vehicle industry.
- This could be used as a model to develop a similar supplier ecosystem for the EV industry.
- Individual component development and sub-processes could be performed by various SMEs and then integrated downstream in a manner similar to the hub and spoke model.
- Consider an EV battery pack:
 - SMEs could manufacture individual components such as the electrolyte, current collector, etc which would feed into the cell assembly unit which also acted as an intermediary hub.
 - A batch of cells produced by a cell assembly unit could be assembled together by a battery pack manufacturer.
 - The battery pack, motor and other power electronic components could be assembled into an EV.
 - All these processes could be performed by SMEs.
- SMEs have not yet entered the EV ecosystem on a large scale due to constraints in access to raw materials, high initial capital investment, scattered charging position of infrastructure and the at present low demand for EVs.
- If such a strategy for downsizing the EV industry was financed by institutions like SIDBI, it would permit smaller manufacturers to enter the industry, which was dominated by oligopolistic gigafactories.
- It would enable the creation of a larger and decentralized EV ecosystem in the country and help attain the **Union Government's vision of 30% EV adoption by 2030.**

Conclusion

- The Introduction of small and medium enterprises into the EV ecosystem will boost the development of electric vehicles and help attain economies of scale which would ultimately boost the penetration of EVs into the economy.

The Bharat 6G Vision Document: How India Plans To Lead Telecommunication Tech



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Bharat 6G

Prepp Mains Booster: Infrastructure: Energy, Ports, Roads, Airports, Railways etc; Science and Technology- developments and their applications and effects in everyday life.

Context:

- Recently, Prime Minister Narendra Modi unveiled the Bharat 6G Vision Document. The government expects this to foster creativity, capacity development, and quicker technological adoption in the country.

What is the motive behind the government rolling out a 6G vision document?

- The government has indicated that it wants to **accelerate India's wireless data consumption** and assume leadership in setting the standards for 6G in the coming years.
- Local manufacturing and standardization:** This could involve various measures, such as promoting the production of telecom equipment locally, as well as assisting Indian businesses and engineers in global discussions regarding standardization.
- It is important to have an impact on these talks as global telecommunications standards are generally adopted worldwide.
- Lead Telecommunication Tech:** Another important factor driving India's focus on 6G technology is the delayed rollout of previous generations of telecommunication technology in the country.
- For example, the deployment of 5G networks in India began much later than in countries like South Korea and the US.
- India does not want to repeat the delays again, and the government wants to ensure early adoption and deployment of this technology **to avoid being left behind.**
- To keep up with Demand:** With increasing data usage, lower frequencies in 4G networks may not physically be able to keep up with the demand for traffic.



What plans does the government have for 6G?

- The administration intends to roll out 6G in **two stages** and has established an **apex council to manage the project and address concerns** with standardisation, spectrum identification for 6G use, funding for research & development, and system ecosystem creation, among other things.
- According to the paper, the apex council will **support and finance 6G technology research and development**, design, and development by Indian start-ups, businesses, research organisations, and universities.
- New technologies include terahertz communication, radio interfaces, tactile internet, artificial intelligence for linked intelligence, novel encoding techniques, and waveform chipsets for 6G devices will be a major area of focus for the council, according to the document.
- Phase 1** will support **experimental concepts**, risky paths, and proof-of-concept tests. **As part of Phase 2**, ideas and concepts that exhibit promise and the potential to be embraced by the global peer community will also receive the necessary support to be developed to completion, to establish their use cases and benefits, and to develop the implementation IPs and test beds that will eventually lead to commercialization.
- According to the document, the Bharat 6G Mission aims to empower every Indian to **achieve atmanirbhar (self-reliance)** in their daily lives, perfectly aligning with the national vision of Atmanirbhar Bharat.
- Additionally, it guarantees that India assumes its proper position in the world as a **major provider of cutting-edge telecom technology and solutions** that are cost-effective and beneficial to the whole world.

How will 6G be different from 5G?

- 6G technology is even more advanced than the 5G technology, for instance, users can download 142 hours of Netflix's high-quality video every second with the 6G network.
- Faster:** 6G is expected to be 100 times faster than 5G and is likely to offer enhanced reliability and wider network coverage.
- Enhanced connectivity:** Additionally, 6G may connect ten times more devices per square kilometre as the number of connected devices increases in future.
- Lower latency:** Furthermore, 5G networks had a latency that was 10 times lower than 4G — 5ms — while 4G networks had a latency of roughly 50 milliseconds (ms).
- With 6G, latency is anticipated to drop to a range of 1 millisecond to 1 microsecond, enabling massive data transmissions in under a second.
- overcome the shortcoming:** This upcoming network technology is expected to overcome the shortcomings of the current networks, improve network design and optimise the network.
- In order to communicate with complicated systems and create seamless internet connectivity, 6G will be used by **cutting-edge AI systems and strong edge computing.**
- 6G will bring **enhanced cybersecurity** to the mobile network as well as more artificial intelligence features.
- It is considered as the first technology to offer integration between terrestrial and non-terrestrial networks, which means that one device will be able to function across several technologies.
- It will connect billions of machines and devices and will bring a big revolving change in bringing the virtual and physical world together.

6G plans of other countries

- In 2021, South Korea announced plans to invest ₩220 billion (approximately Rs 1,400 crore) into "super performance, hyperspace, and super precision standards," as part of its 6G technology development efforts.
- The focus for the year was on **establishing key original technologies** and domestic production of core equipment and components.
- This included identifying technical requirements for crucial areas of 6G networks and designing elementary technologies.
- Moreover, nations have already begun collaborating, for instance Japan and Germany planning a workshop in April to discuss "fundamental technologies to demonstrations."
- India's 6G Vision paper refers to Europe's equivalent document, which aims to ensure leadership in strategic areas and establish secure and trusted access to key technologies, thus making Europe a sovereign, independent, and reliable source for 6G public and private network solutions and services

India's Semiconductor Mission Might Need A Compass

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Semiconductor

Prepp Mains Booster: Growth and Development; Indigenization of technology

Context:

- This article is based on '**India's Semiconductor Mission Might Need A Compass**' written by Saurabh Dutta Chowdhury who presently works at power integrations (NASDAQ: POWI) and has 30 years of expertise in semiconductor fabrication.
- It talks about the **MoU concluded between the US Department of Commerce and its Indian counterpart in March 2023** to ensure that each country's subsidies do not stymie India's semiconductor dreams, as espoused by the much-publicized semiconductor policy launched in December 2021.

About India's Semiconductor Mission

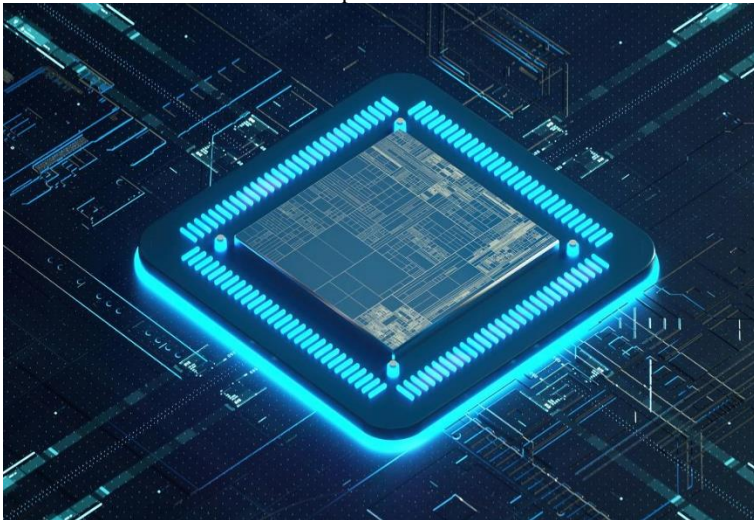
- The India Semiconductor Mission (ISM) was established as an independent business division within Digital India Corporation with administrative and financial autonomy to develop and drive India's long-term strategies for developing semiconductor and display manufacturing facilities, as well as the semiconductor design ecosystem.
- ISM, which is envisioned to be headed by global specialists in the Semiconductor and Display industries, will serve as the central agency for the plans' efficient, cohesive, and seamless execution.

About Semi-Conductor Laboratory (SCL)

- The Semi-Conductor Laboratory (SCL) was established in Mohali in 1983 by the then-central government with the goal of establishing an electronics ecosystem at a time when Keltron, Uptron, and Webel were nascent organizations in a pre-liberalised India targeted at consumer electronics.
- However, shocks such as the opening of consumer products markets in 1991 and a fire at the SCL in 1989 dashed these expectations.
- Some money from the national exchequer was provided to restore the plant to a 180 nm node prototype line in order to satisfy the country's strategic requirements, but the facility has largely stayed an unrealized fantasy in its purpose of establishing a domestic semiconductor ecosystem.
- SCL Mohali can be regarded as a technology stack comparable to others such as Aadhaar, Aarogya Setu, and the Unified Payments Interface (UPI) that acts as a force multiplier effect, inspiring many Indian integrated circuit design companies to explore designing for India.

Significance for India

- India is the US's ninth-greatest trading partner, while the US is both India's largest trading partner and its top export market.
- The United States is one of India's top five business locations and its third-largest source of foreign direct investment (FDI).
- It aims to capitalize on the complementary traits of both countries, open up new business opportunities, and support the development of semiconductor innovation communities.
- The India-US agreement was signed as India moves to decrease its dependence on China for chips.
- The Agreement seeks to promote equally useful talent and skill growth, as well as research and development.



Where does India stand in the Semiconductor Market?

- India presently imports all chips, and the industry is expected to reach USD 100 billion by 2025, up from USD 24 billion now.
- India has also established the Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS) to encourage the production of electronic components and semiconductors.

- In 2021, India unveiled its approximately USD 10 billion Production-Linked Incentive (PLI) scheme to promote semiconductor and display manufacturing in the nation.
- In 2021, the MeitY will also introduce the Design Linked Incentive (DLI) Scheme, which will help at least 20 local semiconductor design firms reach a revenue of more than Rs.1500 crore in the next five years.
- India's own semiconductor usage is projected to exceed USD 80 billion by 2026 and USD 110 billion by 2030.

Way Forward


- With the transfer of SCL back to the Ministry of Electronics and Information Technology (MeITy) after a 15-year stint as a laboratory within the Department of Space as part of the new semiconductor policy announcement in December 2021, the institutional framework for such a shift in focus already exists.
 - However, a year after making such a statement, no joint venture partner has been identified, leaving SCL workers in the dark.
 - During this time, MeITy appears to be focused on luring Intel into India to establish a factory.
- An alternative strategy could be to utilize the SCL's human and financial assets in a focused way to restart the semiconductor mission by taking advantage of recent technical advances in a class of semiconductors that do not require sophisticated lithography equipment.
- The upgrade must be supported by funding targeted at fabless design companies with proven designs (annual sales of more than \$100 million) ready to fabricate at the SCL in the 180nm+ node. (and possibly transfer process intellectual patents if they have any).
- Subsidies must be targeted at global design firms with goods geared at India-specific markets, such as motor drives for BLDC fans or e-bike charges. Unfortunately, current DLI/PLI schemes do not provide such benefits to established worldwide fabless design firms.
- The recent attempts by the India Semiconductor Mission to open up funding to global small and medium-sized businesses in the upstream supply chain are encouraging because an established facility like the SCL will profit.

Conclusion

The vision of India Semiconductor Mission (ISM) is to create a thriving semiconductor and display design and innovation environment that will allow India to emerge as a worldwide center for electronics production and design. The India Semiconductor Mission (ISM) is critical in organizing efforts to promote the semiconductor and display industries in a more structured, focused, and thorough way.

Science and Technology - developments and their applications and effects in everyday life, Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights,

Union Cabinet Gives Nod To Indian Space Policy 2023

Priority: **Medium** 

Primary Source: The Hindu

Prepp Prelims Booster: Indian Space Policy

Prepp Mains Booster: Space; changes in industrial policy and their effects on industrial growth.

Context:

- Recently, the union cabinet chaired by Prime Minister Narendra Modi approved the Indian Space Policy 2023.
- The policy delineates responsibility to ISRO, New Space India Limited (NSIL, a space sector PSU), and Indian National Space Promotion and Authorization Center (IN-SPACe).

Indian Space Policy, 2023

- The policy lays down the framework for the **private sector** to use ISRO facilities **in exchange for a nominal fee** and encourages them to make investments in building new infrastructure for the industry.

- **ISRO will not do any operational and production work** for the space sector and focus its **energies on developing new technologies**, new systems and **research and development**.
- The **operational part of ISRO's missions** will be moved to the **NewSpace India Limited**, a public sector undertaking under the Department of Space.



- NewSpace India Limited (NSIL), incorporated on 6 March 2019 (under the Companies Act, 2013) is a wholly owned Government of India company, under the administrative control of the Department of Space (DOS).
- NSIL is the commercial arm of the Indian Space Research Organisation (ISRO) with the primary responsibility of enabling Indian industries to take up high-technology space-related activities and is also responsible for the promotion and commercial exploitation of the products and services emanating from the Indian space programme.
- Under the Indian Space Policy, 2023 roles and responsibilities of organizations such as ISRO, NewSpace India Limited and private sector entities have been laid down.
- Indian Space Policy 2023 will **offer clarity in the role of the components** set up (in the recent past).
- The policy will aim to strengthen the role of the Department of Space, boost activities of Indian Space Research Organisation (ISRO) missions, and give a larger participation of research, academia, startups, and industry.
- The policy will allow the private sector to take part in **end-to-end space activities that include building satellites**, rockets and launch vehicles, data collection and dissemination.

How will it boost the participation of the private sector?

- **Boost global share:** Currently, India's share in the global space economy is less than two per cent and the space policy will help it increase substantially to 10 per cent in the future. The global space industry is worth over \$500 billion, dominated by the United States and China.
- It would clear the way for much-needed clarity in space reforms and boost private industry participation to help the nation take advantage of the economic opportunity.
- **Economic survey:** According to the Economic Survey of India, there have been more than 100 active space companies since 2012. Several of them are currently vying for approval from the newly formed **InSpace, or the Indian National Space Promotion and Authorisation Centre**.
- **Indian National Space Promotion and Authorisation Centre (IN-SPACe):** To facilitate private sector participation, the government has created the Indian National Space Promotion and Authorisation Centre (IN-SPACe), as a single-window, independent, nodal agency which **functions as an autonomous agency in the Department of Space (DOS)**.

- The agency acts as an interface between ISRO and Non-Governmental Entities (NGEs) and assesses how to utilize India's space resources better and increase space-based activities.
- Nations like the United States have benefited by allowing private firms to carry out space missions. For instance, Elon Musk's SpaceX's reusable Falcon 9 rockets have become a popular choice for space missions around the world.

Way forward

- With the Indian Space Policy, the government aims to drive the overall **growth of Indian commercial space activities** by creating a regulatory environment in compliance with international law and by addressing the previous hurdles to the goal of encouraging the private sector.
- By institutionalizing the sector, the Indian Space Policy breaks the monopoly ISRO-driven space sector.

We Are Seeing Militarisation Of Space, Steady Progress Towards Weaponization: Chief Of Defence Staff

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Defence space mission

Prepp Mains Booster: Space; Security

Context:

- Recently, at the **Indian DefSpace Symposium** organized by the **Indian Space Association (ISpA)** the chief of defence staff, General Anil Chauhan highlighted that the steady traffic towards the weaponization of space has led to a possibility of a war in space.
- The Chief of Defence Staff is the Permanent Chairman of the Chiefs of Staff Committee and acts as the Principal Military Adviser to Raksha Mantri on all tri-services matters so as to provide impartial advice to the political leadership.



Militarisation Of Space

Space militarization refers to using space-based assets for military purposes such as for spying or communication by the militaries:

- The CDS at the Indian DefSpace Symposium emphasized the need for developing dual-use platforms with a special focus towards incorporating cutting-edge technology and expansion of NAVIC constellation, providing agile space-based Intelligence, Surveillance and Reconnaissance (ISR) and ensuring secure satellite-assisted communications.
- Gen. Chauhan cited recent tests by Russia and China as evidence that the development of new kinetic weapons will lead to war in space "becoming a reality" and emphasized the necessity of developing India's own offensive and defensive capabilities in that domain.
- Gen. Chauhan also emphasized the need to explore the field of miniaturization of satellites and reusable launch platforms to mitigate cost, and challenges and accelerate the pace of augmenting India's space-based capabilities.

- According to DRDO chief Samir V. Kamat DRDO has been increasing its focus on the very critical space domain with emphasis on space-based surveillance, space situational awareness, and protecting our space-based assets.

Indian DefSpace Symposium

- Indian DefSpace Symposium is organized by the **Indian Space Association (ISpA) in association with the Defence Research and Development Organisation (DRDO)**.
- At DefExpo last October, Prime Minister Narendra Modi launched 'Mission Def-Space', an ambitious effort to develop innovative solutions for the three Services in the space domain through the Indian industry and start-ups.
- The **goal of Mission DefSpace** is to make India Atmanirbhar in defence technologies in the space domain.
- It will encourage technology development in space for defence applications by startups and young entrepreneurs through 75 Defence Space Challenges launched across various Department for Defence Production (DDP) initiatives viz iDEX, 'Make 1', and 'Make 2'.
- These technologies, with dual-use applications, will accelerate the all-round development of India while safeguarding our national interests.

Conclusion

- The increase in the number of space objects and the emergence of a dynamic threat environment to our space assets, demands that we enhance our space situational awareness capability. There's also a requirement to safeguard our assets with counter space capabilities. We must build resilience and redundancy in a space-based infrastructure.

Outer Space Treaty

- The 1967 Outer Space Treaty bans the stationing of weapons of mass destruction (WMD) in outer space, prohibits military activities on celestial bodies, and details legally binding rules governing the peaceful exploration and use of space.
- The treaty forbids countries from deploying "nuclear weapons or any other kinds of weapons of mass destruction" in outer space. The term "weapons of mass destruction" is not defined, but it is commonly understood to include nuclear, chemical, and biological weapons.
- The treaty, however, does not prohibit the launching of ballistic missiles, which could be armed with WMD warheads, through space.

A Beginner's Guide To The Large Hadron Collider, Its Function And Its Future



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: LHC

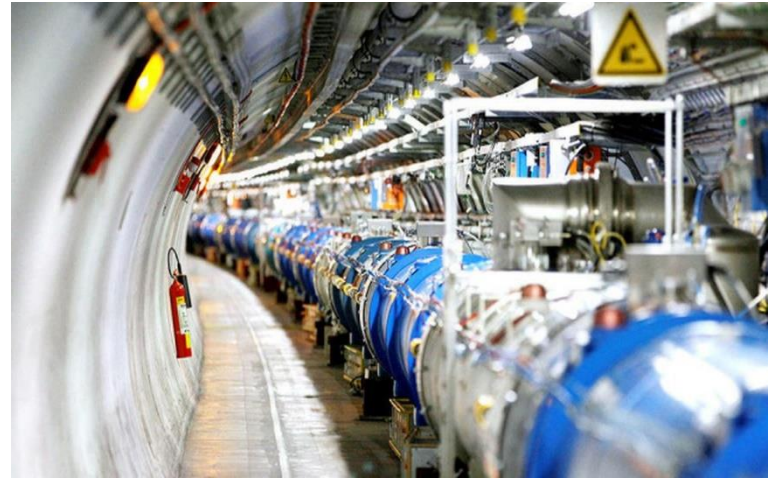
Prepp Mains Booster: Scientific Innovations & Discoveries

Context:

- The Large Hadron Collider (LHC), built by the European Organization for Nuclear Research (CERN) is on the energy frontier of physics research, conducting experiments with highly energized subatomic particles.
- Currently, the engineers are warming up the LHC for its third season of operations, following upgrades that will have made the collider and its detectors more sensitive and accurate than before. It will start collecting data again from mid-May.

What is the Large Hadron Collider (LHC)?

- The Large Hadron Collider (LHC) is the world's largest and most **powerful particle accelerator**.
- It began operations on September 10, 2008, and is still the most recent addition to CERN's accelerator complex.
- The LHC is a **27-kilometer ring of superconducting magnets** with a number of accelerating features to raise the energy of the particles as they travel.



Objectives of LHC

- The LHC's purpose is to enable scientists to **verify the predictions of many particle physics theories**, such as measuring the characteristics of the **Higgs boson**, searching for the enormous family of new particles promised by supersymmetric theories, and other outstanding particle physics concerns.
- Many physicists hope that the Large Hadron Collider will help answer some of physics' fundamental open questions, such as the **basic laws governing the interactions and forces between elementary objects**, the deep structure of space and time, and, in particular, the **interrelationship between quantum mechanics and general relativity**.
- Data from high-energy particle investigations is also required to determine which versions of existing scientific theories are more likely to be right - specifically, to pick between the Standard Model and the Higgsless model, test their predictions, and allow for further theoretical development.

How does the LHC work?

- A hadron is a subatomic particle made up of smaller particles.
- The LHC generally employs **protons**, which are composed of quarks and gluons.
- It energizes protons by speeding them through a 27-kilometer-long narrow circular pipe.
- Protons can be accelerated through the beam pipe by rapidly altering the direction of the magnetic field. Other components aid them along by focusing the particles and preventing them from colliding with the pipe's walls.

Effects of the collision

- When two antiparallel beams of energized protons clash head on, the energy at the moment of impact equals the total of the energy carried by the two beams.
- So far, the LHC has attained the maximum center-of-mass collision energy of 13.6 TeV.
- The marvel is that the energy is compressed into a volume the size of a proton, resulting in an extremely high energy density.

What is CERN?

- European Organisation for Nuclear Research (CERN) is the world's largest nuclear and particle physics laboratory.
- CERN is based in Geneva on the French-Swiss border. It has 23 member states.
- **CERN's mission is:**
 - to provide a unique range of particle accelerator facilities that enable research at the forefront of human knowledge.
 - to perform world-class research in fundamental physics.
 - to unite people from all over the world to push the frontiers of science and technology, for the benefit of all.

Finding of LHC

- The LHC has nine detectors. They analyze particle interactions in various ways since they are located at different places along the beam pipe.
- For example, the ATLAS and CMS detectors found the Higgs boson in 2012 and confirmed their results in 2013.
- Every year, the detectors create 30,000 TB of data worth preserving, and much more overall. Physicists go through it using computers to find and analyze certain patterns.
- The LHC specializes in accelerating and delivering a beam of hadronic particles to particular specifications. Scientists can experiment with the beam in a variety of ways.
- At the LHC, for example, they have energized and smashed lead ions with each other and protons with lead ions.
- Using data from all of these collisions, they have tested the predictions of the Standard Model of particle physics, the reigning theory of subatomic particles; observed exotic particles like pentaquarks and tetraquarks to see if their properties match theoretical predictions; and pieced together information about extreme natural conditions, such as those that existed immediately after the Big Bang.

About Higgs Boson

- The Higgs boson, also known as the Higgs particle, is an **elementary particle** in the Standard Model of particle physics produced by the quantum excitation of the Higgs field, one of the fields in particle physics theory.
- According to the Standard Model, the Higgs particle is a massive scalar boson with zero spin, even (positive) parity, no electric charge, and no color charge that couples to (interacts with) mass.
- It is also very unstable, decaying almost instantly into other particles.

About Quarks

- Quarks are elementary particles and come in six flavours: up, down, charm, strange, top and bottom.
- They usually combine together in groups of twos and threes to form hadrons such as the protons and neutrons that make up atomic nuclei.
- More rarely, however, they can also combine into four-quark and five-quark particles, or “tetraquarks” and “pentaquarks”.

Conclusion

- The LHC has tested some of the predictions of theories that attempt to explain what the Standard Model cannot.
- One option is to boost the LHC's luminosity (a measure of the machine's ability to create particle interactions of interest) by 10x by 2027.
- More contentious concept is to create a bigger, badder version of the LHC, with the hope of discovering 'new physics' at even greater energy.
- While both CERN and China have revealed preliminary designs for larger machines, scientists are split on whether the billions of dollars they will cost may be utilized to develop less expensive experiments, including other colliders, with assured rather than speculative findings.

Directing AI For Better And Smarter Legislation



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: AI

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life, Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights,

Context:

- Recently, Artificial Intelligence based tools have been adopted by legislative bodies around the world in order to empower legislators to deliver better legislation.
- AI would help in analyzing and prioritizing issues before legislators and gathering public opinion, especially in democracies like India which have larger populations per constituency.

What is Artificial Intelligence?

- **Artificial Intelligence or AI** refers to a branch of computer science that aims to develop machines with human-like intelligence.
- These machines would have capacities in learning, thinking, decision-making, and problem-solving.
- Artificial Intelligence technologies involve feeding data into the machine and training it to react to various techniques such as pattern recognition, neural networks, big data, self-algorithms, machine learning, etc.
- Artificial Intelligence has applications in many fields including health, agriculture, retail, manufacturing, transportation, education, security and governance.



Role in Governance

- AI has been adopted by many mature democracies as a tool to develop better legislation and reform parliamentary procedures.
- AI tools would be able to **assist parliamentarians in preparing responses for legislators, enhancing the quality of research involved in legislation, preparing briefs, gaining information on House rules, legislative procedures, etc.**
- AI was also capable of aiding legislators in informed decision-making through **improved access to public grievances, media opinions, and insights from social organizations.**

What are the obstacles faced in AI implementation in India?

- In order to ensure the proper implementation of AI in governance in India, the nation's laws would first have to be codified.
- The current system of laws in the country was opaque, complex and subject to a translation gap between the bodies that make, implement and interpret the laws of the land.
- The Indian Government's move to set up an **India Code portal** was a step in the right direction. However, it could not be relied upon as a single source of truth.
- The interface would have to contain a complete chain from the parent Act to related subordinate legislations and amendment notifications. This would allow any entity to obtain a 360° understanding of the relevant legislation.
- Such a measure was particularly useful in a situation like the Covid-19 pandemic where the Central Government issued over 900 notifications and the states issued around 6000 notifications on the Covid-19 situation alone.
- Laws have to be made machine-consumable with a central law engine that would serve as a single source of truth for all acts, legislations, gazette notifications, and regulations.
- An AI system would allow a citizen who wanted to know if he/she was eligible for a welfare scheme their eligibility using details provided by the citizen and suggest schemes for which they were eligible.

How would AI assist legislators?

- Parliamentarians in India had to manage the concerns of constituencies with much higher populations unlike those in the West.
- The use of AI technology would allow Parliamentarians to obtain the input of citizens and prepare manifestos based on public consultation.

- Parliaments across the world have been experimenting with various AI technologies to enable them to function more efficiently.
- The introduction of an **AI tool by the House of Representatives in the USA** capable of automating the process of analyzing differences between Bills, amendments and current laws has helped to easily identify the impact of amendments and legislative provisions.
- The House of Representatives in the Netherlands has implemented the **“Speech2Write” system** which could convert voice to text and translate voice into a written report.
- The **Inter-Parliamentary Union** has described Speech2Write as an automatic speech recognition and automated editing technology that could remove filler words, make grammatical corrections and propose edits.
- Japan has developed its own AI tool to assist in the preparation of responses for its legislature and in the automatic selection of relevant highlights of parliamentary debates.
- An AI system called **Ulysses** which supports transparency and citizen participation has been developed by Brazil.
- India has also made efforts towards the digitisation of parliamentary activities such as the **One Nation, One Application policy and the National e-Vidhan (NeVA) portal**.

Other Benefits of AI

- Artificial Intelligence can also be used to simulate the potential effects of various laws.
- As an example, AI can process datasets such as the Census, data on household consumption, taxpayers, beneficiaries from various schemes, and public infrastructure.
- AI can thus uncover potential outcomes of a policy and can also help in flagging outdated laws which required amendment such as the **Epidemic Diseases Act, 1897** which had failed in addressing the COVID-19 pandemic situation, provisions in the Indian Penal Code (IPC) such as **Article 309** which has criminalised suicide and other legislations such as the **Press and Registration of Books Act (1867), the Public Gambling Act (1867), and the Prisons Act (1894), etc.**

Conclusion

- The Digital India initiative and overall digitisation policy had been encouraged by the Covid pandemic.
- The digitisation of fields such as law, policy, and parliamentary activities, through the use of AI-based technology would improve service implementation and efficiency.
- However, AI must be recognised as a tool for change and its utilisation must be encouraged in an open, transparent, and pro-public manner.

NeVA

- The **National eVidhan Application, NeVA**, is a Unicode-compliant software program that has made it simple to access a variety of documents in both English and any regional language, including lists of questions, lists of business, and reports.
- It is a Mission mode Project under the Digital India Programme with the Ministry of Parliamentary Affairs as its nodal ministry
- It is a Centrally sponsored Scheme that is funded by the MoPA and technically supported by the MEITY.
- The application has been deployed on the **NIC Cloud's MeghRaj platform** in accordance with the One Country, One Application principle aids in the seamless operation of House proceedings.
- It is a member-centric, device-neutral application that provides all essential infrastructure on legislators' handheld devices and enables the legislative departments to use it.

To know more click [here](#)

National Quantum Mission (NQM)

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: National Quantum Mission

Prepp Mains Booster: Indigenization of technology and development of new technology.

Context:

- Recently, the Union Cabinet approved the ₹6,003 crores **National Quantum Mission (NQM)** that will **fund research and development** of quantum computing technology and associated applications.

National Quantum Mission (NQM)

- NQM, **planned during 2023 – 2031**, will mainly work towards strengthening India's research and development in the quantum arena alongside indigenously building **quantum-based (physical qubit) computers**.
- Quantum-based (physical qubit) computers are very powerful and can perform the most complex problems in a **highly secure manner**.
- It will be led by the Department of Science and Technology.
- Presently, R&D works in **quantum technologies** are underway in the **US, Canada, France, Finland, China, and Austria**.

Deliverables

- **R&D:** It aims to seed, nurture and scale up scientific and industrial R&D and create a vibrant & innovative ecosystem in Quantum Technology (QT).
- The **new mission targets** developing intermediate-scale quantum computers with **50-1000 physical qubits in 8 years** in various platforms like superconducting and photonic technology.
- **Communication: Satellite-based secure quantum communications** between ground stations **over a range of 2000 kilometers within India**, long-distance secure quantum communications with **other countries**, **inter-city quantum** key distribution over 2000 km, and **multi-node Quantum networks** with quantum memories are also some of the deliverables of the Mission.
- The mission will help **develop magnetometers** with high sensitivity in atomic systems and Atomic Clocks for **precision timing, communications and navigation**.
- It will also support design and synthesis of quantum materials such as **superconductors, novel semiconductor structures and topological materials for fabrication of quantum devices**.
- **Single photon sources/detectors**, and entangled photon sources will also be developed for quantum communications, sensing and metrological applications.
- **Thematic Hubs (T-Hubs):** Four Thematic Hubs (T-Hubs) will be set up in top academic and National R&D institutes in the domains -
 - Quantum Computing,
 - Quantum Communication,
 - Quantum Sensing & Metrology and
 - Quantum Materials & Devices.
- The hubs will **focus on the generation of new knowledge** through basic and applied research as well as promote R&D in areas that are mandated to them.

Benefits

- This will **accelerate QT-led economic growth**, nurture the ecosystem in the country and make India one of the leading nations in the development of Quantum Technologies & Applications (QTA).
- NQM can take the technology development ecosystem in the country to a **globally competitive level**.
- The mission would greatly **benefit communication, health, financial and energy sectors as well as drug design, and space applications**.
- It will provide a huge boost to National priorities like digital India, Make in India, Skill India and Stand-up India, Start-up India, Self-reliant India and **Sustainable Development Goals (SDG)**.

Challenges

- **Unable to solve real-world problems:** Researchers and tech firms have been promising the creation of prototype quantum computers for more

than a decade, but none have yet shown to be helpful in solving issues in the real world.

- IBM, D-Wave of Canada, and China's Zuchongzhi 2.1, among others, have developed prototype quantum computers, but none of these systems have yet achieved the **level of practicality required to effectively solve meaningful problems.**

CABINET DECISIONS
19 April 2023

National Quantum Mission

Cabinet approves National Quantum Mission

- Total cost of **Rs.6003.65 crore** from 2023-24 to 2030-31
- Mission to develop magnetometers with high sensitivity in atomic systems and Atomic Clocks for precision timing, communications and navigation
- Support design and synthesis of quantum materials such as superconductors, novel semiconductor structures and topological materials for fabrication of quantum devices
- Single photon sources/detectors, entangled photon sources to be developed for quantum communications, sensing and metrological applications
- To be implemented by Department of Science & Technology in partnership with other departments

- **Need extremely cold conditions:** Current prototype systems require extremely cold (close to -273 C) conditions to work, along with developing the materials capable of such computations.
- **Engineering limitations:** A practical quantum computer (QC) that is reliable and capable of solving meaningful problems is estimated to require at least 1,000 qubits, but the current largest quantum processor only has 433 qubits. The challenge lies in engineering-related limitations rather than theoretical limits.
- **Disturbance:** In certain circumstances, such as at extremely low temperatures (below 0.01 K), with radiation shielding, and with protection from physical shock, qubits may exist in superposition.
- The state of the qubit residing on the table could collapse even if one taps it with your finger. The circuitry between qubits may also include physical or electromagnetic flaws that could 'corrupt' the states of the qubits and influence the outcome.
- **Error correction:** Error correction is also tricky. The **no-cloning theorem** states that it's **impossible to perfectly clone the states of a qubit.**
- An exact copy of a quantum thing cannot be done without changing it in some way. This further makes quantum computing more challenging because perfect copies of qubits cannot be made to fix their errors.
- In quantum physics, the no-cloning theorem states that there cannot be physical processes that produce "copies" of quantum states, like qubits.

Way forward

- The National Quantum Mission will help India take a quantum leap in this area of research. It will have wide-scale applications ranging from healthcare and diagnostics, defence, energy and data security.

Environment

Can Countries Be Sued Over Climate Change?

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: ICJ

Prepp Mains Booster: Environmental pollution and degradation, environmental impact assessment; GS 2 - Important International institutions, agencies and fora- their structure, mandate.

Context:

- Recently, The United Nations General Assembly has adopted a resolution that requests the **International Court of Justice** at The Hague to provide an opinion on the obligations of countries towards reducing climate change, based on the commitments they have made to the **U.N. Framework Convention for Climate Change (UNFCCC).**
- This resolution is particularly important as it was passed by consensus and was initiated by Vanuatu, one of the smallest countries in the world located in the Pacific Island region.
- Vanuatu was devastated by the effects of Cyclone Pam in 2015, which was believed to have been spurred by climate change, that wiped out 95% of its crops and affected two-thirds of its population.

Background

- **A group of 27 law students from Pacific Island** countries came up with the initial concept for bringing the case for climate obligations to the highest court.
- They organised a campaign and presented it to the Pacific Islands Forum.
- The Pacific Islands Forum is the region's **premier political and economic policy organisation.**
- Founded in 1971, it comprises **18 members:** Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.
- The Forum's Pacific Vision is for a region of peace, harmony, security, social inclusion and prosperity, so that all Pacific people can lead free, healthy, and productive lives.
- The Vanuatu government has been advocating for an Advisory Opinion from the ICJ since 2019 with the backing of an 18-member "core group" of nations.
- It drafted the resolution that eventually had the support of 132 nations at the UNGA and was approved without a vote.
- While a few nations, including the United States, expressed some scepticism, no nation opposed the resolution.
- Ishmael Kalsakau, the prime minister of Vanuatu, who led the campaign, referred to it as "a win for climate justice of epic proportions."

What is the draft resolution?

- The draft resolution passed by the United Nations General Assembly (A/77/L.58) has requested the International Court of Justice (ICJ) to provide an opinion on **two questions** related to climate change obligations under international law.
- What are the obligations of states under international law to **ensure the protection of the climate system for present and future generations?**
- What are the **legal consequences under these obligations** for states where they, by their acts and omissions, have caused significant harm to the climate system, particularly for Small Island Developing States (SIDS) and for people who are harmed?
- The resolution cites various international agreements, including the Paris Agreement (2015), **the United Nations Convention on the Law of the Sea**, and the Universal Declaration of Human Rights.
- The ICJ is expected to take about 18 months to deliberate and deliver its opinion on the matter.

What are Small Island Developing States (SIDS)?

- Small Island Developing States (SIDS) are a distinct group of 38 UN Member States and 20 Non-UN Members/Associate Members of United Nations regional commissions that face unique social, economic and environmental vulnerabilities.
- The three geographical regions in which SIDS are located are: the Caribbean, the Pacific, and the Atlantic, Indian Ocean and South China Sea (AIS).

India's stance

- **Silent on resolution:** India has been silent on the resolution and has referred the resolution to legal authorities in the country to assess its implications and international ramifications.
- **Did not co-sponsor:** Although India has updated its commitments towards reducing emissions, it did **not co-sponsor the draft resolution**, unlike several other countries like Bangladesh, Maldives, Nepal, Sri Lanka, and a number of island countries in the Indian Ocean Region (IOR) in the region.
- **Monitoring:** India is watching the response of global powers such as the U.S. and China, as their support is crucial for the implementation of any climate change initiative.
- During the resolution discussion, the U.S. representative expressed concerns about the effectiveness of a judicial process in achieving shared goals and emphasized diplomatic efforts as the best approach.
- Indian officials have also stated that the ICJ process cannot name or specifically mention any one country and can only speak about issues and challenges related to climate change in general.
- They cited the Paris agreement as a turning point in the direction of a **"bottom-up" strategy** in which governments decide for themselves how best to combat climate change.



Significance

- **Bolster efforts:** A legal opinion from the ICJ is expected to **bolster the efforts** under the UNFCCC to ensure all countries work towards mitigating climate change and global warming to the suggested 1.5-2°C limit.
- ICJ's legal opinion will be watched closely on contentious issues such as climate reparations by the developed world, legal culpability for countries that don't achieve their NDC promises, and climate support to the most vulnerable parts of the world battling the **effects of global warming**.
- Global climate levels have already risen by 1.1 degrees from pre-industrial levels in the last century, according to the most recent [IPCC "Synthesis report"](#), and significant reductions in greenhouse gas emissions, as much as by a half, are needed by 2030 to maintain this target.
- **Guide:** According to UN Secretary General Antonio Guterres, the view of the ICJ is "important," and it will "guide the activities and conduct of states in their interactions with each other, as well as towards their own citizens."
- The UNGA path taken by Vanuatu and its supporters is more comprehensive than two other attempts for an Advisory Opinion sought

in December 2022 by Small Island States to the International Tribunal for the Law of the Sea specifically asking about marine environment commitments; and another in January 2023 by Colombia and Chile at the Inter-American Court of Human Rights (IACHR) asking for an Advisory Opinion on human rights obligations for countries pertaining to the "climate emergency".

Is the advisory opinion of the ICJ binding?

- The "advisory opinion" of ICJ would **not be legally binding** as an ICJ judgment.
- ICJ's clarification of international environmental laws would streamline the process, particularly as the COP (Conference of the Parties) process looks at various issues like climate finance, climate justice, and the most recently agreed to "loss and damages" fund at the COP27 in Sharm El-Sheikh last year.

Conclusion

- The resolution's sponsors claimed that the ICJ has "legal weight and moral authority" and cited previous advisory opinions that have been respected on the Palestinian issue (the construction of the Wall), nuclear threats, and the dispute between the United Kingdom and Mauritius over the Chagos Islands as examples.

Climate Change Worsened Extreme Weather Events In 2022: State Of The Global Climate Report

Priority: **Medium**



Primary Source: Down to Earth

Prepp Prelims Booster: Global Climate Report

Prepp Mains Booster: Conservation, environmental pollution and degradation, environmental impact assessment. Disaster and disaster management.

Context:

- Recently, the State of the Global Climate Report 2022 was released by the World Meteorological Organization.
- According to the Report, rising global temperatures in 2022 had led to increased and more intense extreme weather conditions around the world.



What is the Global State of the Climate Report?

- The **Global State of the Climate Report** is an annual report published by the World Meteorological Organization (WMO).
- The 2022 Report was produced as part of the most recent assessment cycle of the sixth IPCC Assessment report.
- The Report described the current state of the world's climate on the basis of key climate indicators and reporting on adverse events and their impacts.

WMO

- The World Meteorological Organisation is an intergovernmental body with 192 member countries and territories including India.

- Geneva, Switzerland serves as the headquarters of the WMO, which was established as a result of the Vienna Congress of 1893.
- The WMO has acted as the United Nations specialized organization for meteorology i.e. weather and climate, operational hydrology, and related geophysical sciences since 1951.
- The **WMO's parent organization was UNESCO.**
- **Publications:** Greenhouse Gas Bulletin and State of the Global Climate
- **Functions:**
 - Coordinating meteorological activities of member states
 - Providing a guarantee in the publishing of meteorological and hydrological data.
 - Encouraging research and development initiatives in meteorology and hydrology.
 - Predicting locust storms and movement of pollutants.

What has the Report stated?

- The 2022 edition of the Report has claimed that the **rising temperatures had resulted in an increase in the frequency and intensity of extreme weather events** including tornadoes, heatwaves, droughts, floods, cyclones, etc all over the world.
- **Anthropogenic greenhouse gas emissions**, which were considered to be another cause for extreme weather events were also found to be at record highs.

On Heatwaves

- The Report has mentioned the case of China, which faced the longest and most extensive heat wave in its history between June and August at the same time that the country was also experiencing its hottest and second-driest summer, almost 0.5° Celsius higher than the previous year.
- It was noted that 366 regions in the country experienced their highest-ever temperatures while Southern China experienced a 20-50% deficit in rainfall and drying up of the Yangtze.
- Europe was found to have experienced severe heat events in all its summer months and peaked at 40°C in the UK in July.
- In the Mediterranean region, Tunisia experienced record temperatures with the Mediterranean Sea experiencing heat waves between March and December.
- Antarctica also witnessed temperatures that were 35° above the average for March and 15° above the average annually.
- In Europe, the rising heat was followed by the worst droughts in 50 years with **major European rivers such as the Danube, Rhine, and Loire** experiencing their lowest water levels.
- African nations located in the **Horn of Africa** as well as Kenya, Somalia, and Ethiopia experienced consecutive seasons of intensified drought while Chile and the south and west of North America also suffered from droughts.
- In Asia, India and Pakistan experienced heatwaves during the 2022 spring and summer seasons. This has led to a fall in the wheat crop, forcing the government to ban the exports of wheat.
- These **heatwaves were expected to be three times more likely to occur due to climate change** according to a study published by World Weather Attribution (WWA).

On Floods

- Devastating Floods that affected 9% of the country's territory followed the heatwave in Pakistan, killing nearly 1,700 people and impacting 33 million.
- Nigeria, which experienced floods throughout its rainy season, witnessed intense flooding in October due to heavy rain killing around 603 people.
- In the first two months of 2022, Madagascar was affected by three tropical storms that drastically affected the island nation.
- In mid-January, an **inter-tropical convergence zone (ITCZ)** formed, giving way to a series of tropical storm systems. This includes Cyclone Ana in the last week of January and Cyclone Batsirai in February. Tropical cyclones Dumako and Emnati followed Batsirai in February.

- The WWA had stated that a portion of the storm damage was a result of global warming.
- For the first time since 1988, three storms made landfall in Madagascar in February, according to the National Oceanic and Atmospheric Administration (NOAA).
- Six tropical weather systems, including tropical storms like Gombe and Jasmine, were allegedly responsible for the events in Madagascar, according to the United Nations Office for the Coordination of Humanitarian Affairs. These were unrelated to the ITCZ and resulted in the deaths of 214 people.
- According to the report by the WMO, a severe storm known as Derecho was discovered to have struck the Balearic Islands across France, Italy, Slovenia, Austria, and Czechia before reaching its apex over Corsica, where wind gusts of 225 km/h recorded.

Conclusion

- These severe weather incidents occurred in a climate that was 1.15°C warmer than pre-industrial levels which have raised questions about whether the goal of 2°C was achievable.
- It was expected that these would undoubtedly occur as a result of the increase in greenhouse gas emissions and the prospect of El Nino in the summer.

World's 60 Largest Banks Pumped \$5.5 Trillion Into Fossil Fuels After The Paris Agreement: Report



Priority: Medium

Primary Source: Down to Earth

Prepp Prelims Booster: Environment

Prepp Mains Booster: Environment

Context:

- According to the annual Banking on *Climate Chaos* report released by environmental organizations like Rainforest Action Network, BankTrack, Indigenous Environmental Network, Oil Change International, Reclaim Finance, Sierra Club and Urgewald, the world's 60 largest banks have spent \$5.5 trillion or Rs 4,49,36,265 crore on financing fossil fuel projects since 2016, when the climate pact called Paris Agreement came into effect.

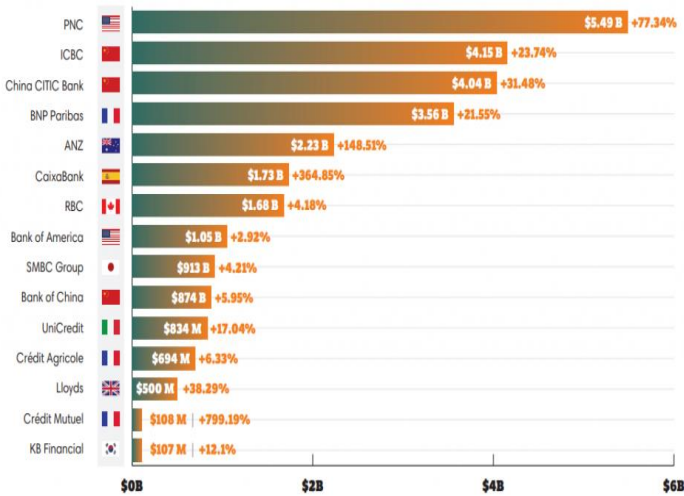
What does the report say?

- The report highlights the challenges 190-odd signatories of the Paris Agreement face in phasing out fossil fuels, integral to the global economy.
- As the window to prevent the worst consequences of the climate issue rapidly closes, the financing violates these institutions' pledges to be on a path to Net Zero greenhouse emissions.
- The 10 banks that had the highest spending on fossil fuels from 2016-2022 include JPMorgan Chase & Co (\$434.15 billion), Citibank NA (\$332.9 billion), Wells Fargo & Company (\$318.2 billion), Bank of America Corporation (\$281.23 billion) and Royal Bank of Canada (\$253.98 billion).
- These were followed by Mitsubishi UFJ Financial Group (\$219.64 billion), Barclays (\$190.58 billion), Mizuho Bank Ltd (\$189.61 billion), the Bank of Nova Scotia or Scotiabank (\$182.31 billion) and TD Bank NA (\$173.20 billion).
- **The dominance of developed countries:** Additionally, banks from six nations—the United States, Canada, China, Japan, France, and Great Britain—control the majority of the world's financial investments in the fossil fuel industry. For instance, in 2022, banks from the US contributed 28% of the entire financing.
- According to data, the G7 public financing for fossil fuels was \$73 billion from 2020 to 2022, which is 2.6 times the financing for clean energy, which was \$28.6 billion. The top two financiers at the time were Canada and Japan.
- The world's top 100 oil, gas, and coal energy companies received \$150 billion in the previous year.

- **Russia-Ukraine War:** According to the report, the Russia-Ukraine war upended the world's energy markets and paved the way for a unique year in the finance of fossil fuels.
- Fears of energy shortages, particularly in Europe, increased the price of oil and gas globally, a windfall for businesses that would otherwise be experiencing long-term decline and stagnant revenues.
- **Inadequate commitment to the Paris Agreement:** The research stated that of the 60 banks examined, 13 do not have any coal exclusion policies, and 47 have inadequate commitments to their coal exclusion policies.
- Danske Bank, Denmark's largest bank, agreed to stop providing new long-term funding for fossil fuel projects in 2023, especially for businesses without a credible transition plan. This decision was made in response to the Paris Agreement.

FIFTEEN BANKS INCREASED FOSSIL FUEL FINANCING (FROM 2021-2022)

Amount of increase and percent change



How banks were able to pump money into fossil fuels despite commitments?

- **Presence of loopholes:** The report said that most bank commitments allow for loopholes that contain climate risk through **underwriting bonds and equities** which comprise 36 percent of all fossil fuel lending.
- A major shortcoming of nearly all targets is that they apply exclusively to lending and exclude bond and equity underwriting.

What is the impact of fossil fuels on climate change?

- The IPCC has determined that the primary cause of global warming is the emissions generated by the use of fossil fuels. As of 2018, about 89% of the world's CO₂ emissions were produced by the use of fossil fuels and industry.
- Among the fossil fuels, coal is the most polluting and has contributed over 0.3C to the 1C increase in global temperatures, making it the biggest contributor to global warming.
- Oil is a significant source of carbon emissions, accounting for about one-third of the world's total emissions.
- In addition, there have been several oil spills in recent years that have had devastating effects on the ecosystem of our oceans.
- Although natural gas is often presented as a cleaner alternative to coal and oil, it is still a fossil fuel and is responsible for one-fifth of the world's carbon emissions.

Paris Agreement

- The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on 12 December 2015.
- It entered into force on 4 November 2016.
- Its overarching goal is to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels."

Fossil Fuels

- Fossil fuels are formed from the decomposition of buried carbon-based organisms that died millions of years ago. They create carbon-rich deposits that are extracted and burned for energy. They are non-renewable and currently supply around 80% of the world's energy. They are also used to make plastic, steel and a huge range of products. There are three types of fossil fuel – coal, oil and gas.

What are the problems with G7 funding?

- According to the research the majority of the G7's funding for sustainable energy is allocated to wealthier nations rather than countries in the Global South.
- The G7 is an informal grouping of seven of the world's advanced economies, including Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States, as well as the European Union.
- Only four lower-middle-income nations were among the top 15 recipients of clean finance.
- According to the report, "Clean energy finance has largely stagnated, rising only slightly from an annual average of \$7.3 billion from 2017 to 2019 to \$9.5 billion from 2020 to 2022."
- The nations agreed to "end new direct public support for the international unabated fossil fuel energy sector by the end of 2022" at the summit last year.

How Coastal Species Are Living On Plastic Debris In The Ocean

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Plastic Debris

Prepp Mains Booster: Environment; Environmental Pollution and Degradation

Context:

- Recently, a new study published in the journal Nature Ecology & Evolution reported that coastal lifeforms had colonized plastic items in the **Great Pacific Garbage Patch**, resulting in a slew of new discoveries.

What is the Great Pacific Garbage Patch?

- The Great Pacific Garbage Patch is a concentration of marine debris in the North Pacific Ocean. Marine debris is litter that ends up in the ocean, seas, and other big bodies of water.
- The Great Pacific Garbage Patch is the world's greatest concentration of ocean plastic and is found between Hawaii and California.

The North Pacific Gyre

- Some water currents in the oceans create loops due to wind and the Coriolis effect. These are referred to as gyres.
- One such is the North Pacific Subtropical Gyre (NPSG), which is located in the Pacific Ocean just north of the equator.
- It is made up of the Kuroshio, North Pacific, California, and North Equatorial currents and flows in a clockwise direction. These currents pass close to 51 Pacific Rim nations.
- Any trash that enters one of these currents from any of these nations may become part of the gyre.
- Within this gyre, just north of Hawai'i, is a long east-west strip where some of the debris in these currents has accumulated through time. The Great Pacific Garbage Patch is located in the eastern part of the region.

According to one estimate, it is 1.6 million square kilometers in size and more than 50 years old.

- The patch includes an estimated 45,000-1,29,000 metric tonnes of plastic, the majority of which is in the form of microplastics. Plastics have a numerical density of around 4 particles per cubic metre here.
- However, bigger, more visible things that haven't yet broken down into tiny particles accounted for 92% of total mass in 2018.

What did the new study find?

- The tsunami off the coast of Japan in 2011 added to the material in this garbage region. Until at least 2017, researchers had discovered trash washing ashore on the West Coast of North America including living lifeforms discovered in Japan.
- Researchers collected 105 pieces of plastic trash from the eastern half of the NPSG, the most heavily plastic-polluted ocean gyre on the planet, between November 2018 and January 2019.
- According to their findings, 98% of the trash pieces included invertebrate creatures.
- They also discovered that pelagic (open ocean) species were present on 94.3% of them and coastal species were present on 70.5%. That is, creatures found on beaches were surviving on little floating islands of garbage in the Pacific Ocean.
- The number of coastal species detected rafting on plastic was more than three times that of pelagic species that generally reside in the open ocean.
- They discovered creatures from 46 different taxa, 37 of which were coastal and the rest were pelagic.
- Crustaceans were the most frequent among both coastal and pelagic creatures. The coastal species were most usually discovered on fishing nets, whereas the pelagic species were located on crates.



Where were the organisms from?

- Almost all taxa were of Northwest Pacific provenance, including Japan.
- The majority of trash (85.7%) lacked recognizable origin indicators such as manufacturing sites or company/brand names.
- However, eight of the remaining ten were from East Asia, with five notably from Japan. Four of the objects were from North America.
- The researchers also discovered that 68% of coastal taxa and 33% of pelagic taxa reproduced asexually, with indications of sexual reproduction among hydroids and crustaceans, among others.
- They discovered a considerable positive relationship between reproduction and mobility.

Relevance of the findings

- Since the 1950s, the introduction of a vast sea of relatively permanent anthropogenic rafts has given rise to a new sort of standing coastal community in the open ocean. They've named it the neipelagic community.
- While coastal animals had previously been discovered on human-made artifacts in the open ocean, they were usually thought to have been "misplaced" from their original habitats.

- The neipelagic population, on the other hand, is not displaced but thrives on plastic items in the garbage patch, including reproduction.

Why is it harmful for humans and marine life?

- As the ocean gyres operate as conveyor belts, the collected waste is unlikely to escape. The round movements of the ocean currents and winds make it hard for the debris to flow in any direction other than the gyre's center.
- The ocean currents that have been moving water around the planet for millions of years with the assistance of gyres have now become a trash vortex for waters throughout the world. They catch marine trash and make it hard for it to escape.
- The vast majority of objects that wind up in the Great Pacific Garbage Patch are not biodegradable, meaning they do not break down in water. They just break down into smaller and smaller pieces as a result of the sun's heat, water currents, and pressure.
- Because plastic is now so small, it may easily be mistaken for food and ingested by fish, sea turtles, and sea mammals. As a result, people consume these marine animals that may have inadvertently consumed undesirable plastic pollutants and get ill.

On Democratizing Tiger Conservation

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Tiger Census

Prepp Mains Booster: Environment; Conservation

Context:

- Recently, the **50th anniversary of the Wild Life Protection Act and Project Tiger, was celebrated which helped bring the National Animal back from the brink of extinction.**
- The need to change in **conservation practice in India was also reflected in order to preserve these victories** while also planning for the challenges that lie ahead in the next 50 years.

Background

- The tiger figure announced by Prime Minister Narendra Modi recently, is the most conservative estimate based on the tigers photographed during the census.
- The final estimates will be released in the coming months; officials have estimated a 6% yearly growth rate, thus the predicted number would be roughly 25-30% higher than the earlier 2018-2019 estimate of 2,967 tigers.
- The world was astonished fifty years ago when India revealed that tiger populations had fallen below 3,000.
- India reacted by outlawing hunting and establishing one of the world's most stringent legislative systems to conserve its natural heritage.
- Fifty years later, roughly the same number is currently celebrated.

What is Project Tiger?

- Project Tiger was established in 1973. It was one of the most significant conservation efforts launched in India to protect tigers.
- It was the first project of its kind in India to maintain the population of tigers and protect them from poaching and other threats.
- The National Tiger Conservation Authority (NTCA) addresses ecological and administrative issues related to tiger conservation.
- It establishes a legal framework for the protection of tiger reserves and strengthens institutional safeguards for ecologically sensitive areas and endangered species.
- Project Tiger was made a statutory authority (NTCA) by inserting enabling provisions into the Wild Life (Protection) Act of 1972 via an amendment, the Wild Life (Protection) Amendment Act of 2006.
- The Jim Corbett Tiger Reserve in Uttarakhand was India's first tiger reserve.



An Umbrella Species

- The tiger was referred to as an "umbrella species." Conserving the tiger means conserving the ecology as a whole.
- Umbrella species are those chosen for conservation-related choices because their conservation and preservation indirectly impact the conservation and protection of other species within their ecosystem.
- Umbrella species aid in the identification of prospective reserve areas and determination of the composition of the reserve.
- Tigers may be found in a variety of habitats in India, including the evergreen forests of the Western Ghats, the terai grasslands of the Himalayan foothills, and the tropical dry forests of Rajasthan and the Sundarbans.
- Given the inherent disparities in such habitat types, it is unavoidable that not all will support comparable tiger numbers.
- Tiger populations are often strongest in habitats with abundant prey. The objective was to rescue species across all habitats by utilizing the tiger as an 'umbrella' to safeguard natural forests, sustain our rivers, and keep our air pure.
- However, in the lack of competent scientific monitoring, the focus remained on increasing tiger populations rather than their habitat and other species.
- The most prevalent interventions were to change ecosystems so that they could support high numbers of the tiger's primary prey species.

Significance of Tiger Conservation

- The tiger is one of the primary predators on which the entire ecosystem depends; by protecting tigers, the ecosystem's equilibrium is also preserved.
- The tiger is an umbrella species whose protection eventually leads to the conservation of many other species such as ungulates, pollinators, and other tiny animals.
- Tigers are categorized as endangered species on the IUCN red list.

Conservation in India

- Conservation in India is largely dependent on a network of Protected Areas (PAs).
- The ordinary Indians, particularly those who live closest to wildlife and frequently pay the price for it, have relatively little voice in conservation.
- The Wildlife Protect Act is a stringent law. It goes into great depth about what you cannot do. However, the legislation and related regulations have done very little to promote conservation.

- There is no policy structure or incentive for regular citizens to help with conservation, whether for tigers or any other species. As a result, conservation has not extended beyond these PAs.
- In other nations, natural areas are owned or managed by people, communities, farmers, ranchers, corporations, charities, and the government. Each of them is incentivized to protect these areas based on their individual interests.
- As a result, numerous conservation models work concurrently.
- In India, all natural areas are administered by a single organization, hence the approach to conservation is unique and distinct.

Wildlife Protection Act

- The Wild Life (Protection) Act, 1972 is an Act of the Indian Parliament designed to conserve plant and animal species.
- The Wildlife (Protection) Act, 1972 governs wildlife conservation and protection in India. The Act arose during a period in India when environmental law was quickly expanding.
- The Act was created with the understanding that prior legislation, such as the Wild Birds and Animals Protection Act of 1912, were insufficient.
- The current Act is comprehensive and fills all gaps left by previous legislation.

Way Forward

- A framework is needed that allows local communities, people, scientists, non-governmental organizations, and companies to participate actively in conservation.
- Large swaths of forest land, for example, "Reserved Forests" under the control of the territorial branch of State Forest Departments can be co managed with an inclusive approach which also provides economic benefits for local communities.
- In many landscapes, degraded agricultural lands next to these forest areas may be restored to improve connectivity between PAs, and forest patches farther afield can serve as stepping stone reserves for tiger and other big animal mobility in our increasingly human-modified world.
- Only by expanding the reach of conservation beyond our current PA system and engaging local communities and ordinary folks to genuinely participate in conservation can we expect to accomplish an actual doubling of tigers and other endangered creatures.

Death Of 2 Cheetahs: M.P. Forest Department Writes To Centre To Seek 'Alternate Site' For Spotted Animals

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Environment

Prepp Mains Booster: Environment

Context:

- Recently, the Madhya Pradesh State Forest Department requested the Union Government for an alternate site for the cheetahs that were housed at Kuno National Park.
- The death of two cheetahs in less than one month had led to the request.
- The cheetahs had been translocated from Namibia and South Africa in two batches of 8 and 12 respectively.

What has the MP Forest Department requested?

- The Madhya Pradesh State Forest Department has written to the Union Government requesting that a new site be selected to house the **Cheetahs that had been released at the Kuno National Park** following the death of two cats in the last month.
- Senior officials have stated that there was a **lack of logistical support and space for the cheetahs**.
- An official also stated that there was a **shortage of manpower** that was necessary to monitor the cheetah population on a 24-hour basis.

- The space shortage was described as secondary by an official who stressed that a large amount of logistical support was needed for the project to be implemented effectively.



What is the status of Project Cheetah?

- Project Cheetah** was the world's first intercontinental large wild carnivore translocation project.
- The Project was based on a **coexistence approach** where cheetahs would be introduced in an unfenced protected area. This was the first instance of such an approach with cheetahs.
- MoUs were signed with Namibia and South Africa for the translocation of the cheetah, which was the fastest animal in the world.
- The project has been monitored by the **National Tiger Conservation Authority**.
- The 20 cheetahs were to be translocated to the Kuno National Park in the Sheopur district of Madhya Pradesh.
- The felines were obtained from **Namibia(8) and South Africa(20)** in two batches in September 2022 and February 2023.
- Sasha**, a four-and-a-half-year-old cheetah from the Namibian batch died as a result of kidney ailments on March 27.
- Less than a month later, a six-year-old male from the South African batch named **Uday** died due to as yet unidentified causes.
- Oban**, who has been renamed **Pawan** had been found to have strayed outside the limits of the National Park multiple times.
- A cheetah named **Siyaya** has given birth to four cubs.

What is the contingency plan to deal with cheetahs straying beyond the Reserve?

- The **Principal Chief Conservator of Forests of Madhya Pradesh** had stated that the department had written to the [National Tiger Conservation Authority](#), which was overseeing Project Cheetah about a new site.
- Officials stated that the development of alternate sites like the Gandhi Sagar Sanctuary or Nauradehi Wildlife Sanctuary would take two and three years respectively.
- A contingency plan was in place in line with the risk management plan for serial escapees.
- These animals would be released in the **Mukundara Hills Tiger Reserve**, Rajasthan once the relevant permissions were obtained.
- The protected area had an 80 km fence and sufficient stocks of prey population which would prevent serial escapees.
- The enclosure was also free of tigers but had small populations of leopards, wolves, and striped hyenas.
- Officials have stated that Mukundara was guaranteed to be a successful site for the establishment of a Cheetah population. It was expected that the enclosure would produce surplus cheetahs which would later be relocated to other protected sites.
- However, the project required Central approval to proceed. The delay in approval could prove detrimental to the entire cheetah population according to experts.



What have experts said about the Project?

- Some experts have stated that a **cheetah requires 100 sq km of area for its movement**.
- The director of Kuno National Park has stated that there was no definite knowledge of the space needed by cheetahs as they had gone extinct around 70 years ago.
- The international community of cheetah experts and biologists criticized the project for its unscientific approach.
- Experts have claimed that the **cheetahs in Kuno faced a lack of space and prey**.
- The 12 cheetahs that had been brought from South Africa were under stress as they had been captured nine months ago and kept in captivity in small enclosures.
- Experts have also warned that the problem of cheetahs straying out would increase as 14 more cheetahs had to be released into the wild.
- They have recommended that 4000 sq km of landscape in Kuno be developed in order to allow the free movement of the cheetahs
- As the animals were raised in fenced game reserves, their **straying could lead to man-animal conflicts**, especially in villages close to the National Park.
- A letter published in the journal, Conservation Science and Practice stated that the **small size of KNP(750 sq Km) meant it was more likely that the released animals would move far beyond the park's boundaries and cause conflicts** with neighbouring villages.
- Researchers have also claimed that the translocation project was planned and implemented without taking the **spatial ecology** of the cheetah into account.

What have researchers from the Cheetah Research Project said about the Project?

- Experts had raised doubts about whether **Kuno with a core area of 748 sq km and a buffer zone of 487 sq km** was sufficient for the Project prior to the import of the cheetahs.
- Scientists from the **Cheetah Research Project of the Leibniz-IZW in Namibia** have argued that cheetahs lived in a stable socio-spatial environment in Namibia, southern Africa and the Serengeti (east Africa) where territories were widely spread and had population densities of between 0.2 and 1 individual per 100 square kilometres.
- Researchers have discovered that male cheetahs followed two different spatial tactics.
 - Territory holders:** Such cheetahs held territories which consisted of a collection of important communication hotspots.
 - Floaters:** These were males (and some females) without territories who moved and lived between existing territories with occasional journeys into territories to collect information at marking sites.
- The region between the territories was usually not defended by the males and was a living and transit space.
- If the same model was followed by the cheetahs in India, it would lead to a system with 20 territories which were around 20-23 km apart, independent of territory size or prey base.**

- While **territories were larger in Namibia, those in the Serengeti had a higher prey density.**
- The researchers have thus concluded that with the **introduction of the three males from Namibia in September 2022, Kuno had already reached its maximum carrying capacity**, leaving no room for the South African felines.
- According to available research, cheetahs who were reintroduced into the wild undertook long forays exceeding thousands of square kilometres in the first few months. This could lead to an increased number of cheetah sightings outside the reserved area and more man-animal conflicts.

Kuno National Park

- The Kuno National Park is a national park located in the **Vindhya hills of Sheopur district, Madhya Pradesh.**
- It acquired its name from the Kuno River, a tributary of the **Chambal that flows through the park.**
- It was established in 1981 as a wildlife sanctuary and was designated as a national park in 2018.
- It was selected as the site for the relocation of Cheetahs under Project Cheetah and has also been suggested as a potential site for the introduction of the Asiatic Lion.
- Indigenous communities in the area include the Moghiya, Bhil, Gujjars, Yadavs, and Sahariyas.
- **Flora:** Open woodlands, savanna, dry deciduous forests, and evergreen riverine forests
- **Fauna:** Wolves, leopards, striped hyena, chital, sambar, nilgai, blackbuck, tiger etc.

Supreme Court Modifies Order On Eco-Sensitive Zones Around Protected Forests

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: Environment

Prepp Mains Booster: Conservation, environmental pollution and degradation, environmental impact assessment.

Context:

- Recently, the Supreme Court has modified its order on the mandatory Eco-Sensitive Zone of a minimum 1Km around wildlife sanctuaries, national parks and protected forests.
- The court declared that the ESZ, which was meant to act as a shock absorber, had to be area-specific and not uniform throughout the nation.

What has the Supreme Court ruled on the ESZ?

- A Supreme Court bench led by Justice B.R.Gavai has **modified an earlier judgment of the Court which had directed that eco-sensitive zones of a minimum of one Km size be mandatorily established around protected forests, wildlife sanctuaries and national parks.**
- The Court ordered that it was not reasonable to prescribe a uniform policy for the entire country and recommended that it should be specific to the protected area.
- The Court's ruling came in a petition filed by the Union government and states including Kerala that challenged the 2022 judgment of the Court that had mandated the ESZ which was intended to act as a shock absorber for the protected areas.
- The petitioners had claimed that the judgment affected hundreds of villages that existed in the periphery of the protected areas.
- The Court agreed with the petitioners and agreed to modify the 2022 ruling as it had adversely affected the day-to-day lives of ordinary citizens in the ESZs.



What had the Court said in 2022?

- In the 2022 ruling, the Court stated that these mandatory ESZs would act as a transition zone from areas of high protection to areas requiring less protection.
- The three-judge bench, comprising Justices B.R.Gavai, L.Nageshwara Rao and Aniruddha Bose, had highlighted the destruction of the country's natural resources through unregulated mining and other activities.
- The ruling was delivered in a writ petition seeking the protection of forest lands in the Nilgiris district, Tamil Nadu, whose scope was enlarged by the apex Court to include the protection of natural resources throughout the country.
- **The Court directed that the state should act as a trustee for the benefit of the public through natural resources in a manner that ensured sustainable development.**
- **The state should not prioritize the facilitation of economic activities in order to attain short-term financial advantages.**
- The Court stated that the role of the state as a protector of natural resources was relevant in the present era when the world faced challenges like climate change and global warming.
- The bench ruled that in all cases where the ESZ was above one km in size it would remain so, while in those where a statutory decision was pending on the size of the ESZ, the court's one km directive would be applicable until a final decision was taken under the law.

What were the challenges associated with the 2022 ruling?

- The court stated that a stringent observance of the 2022 ruling would lead to an **increase in human-animal conflicts.**
- The ruling had **restricted construction activity** in the region declared as an Eco-Sensitive Zone. This meant that people would not be able to construct houses nor would the government be able to build basic infrastructure for the betterment of the villagers in the region such as schools, anganwadis, tanks, stores, etc.
- The ruling also limited the construction of roads in the declared region by the State or Union government.
- **State Forest departments could not conduct eco-development activities** in the region surrounding the protected areas and the **Central sponsored Scheme - Integrated Development of Wildlife Habitats** which assisted in ecological development activities could not be efficiently implemented.
- The construction of nationally and strategically important projects such as highways, defence infrastructure, railways etc was also affected.

What are ESZs?

- **Eco-Sensitive Zones or Ecologically Fragile Areas** were defined as areas around protected areas like wildlife sanctuaries, tiger reserves, national parks, etc.
- ESZs were meant to regulate and manage the activities in the region by acting as shock absorbers.

- They were reserved for the protection of the natural habitats and biodiversity of certain species and aimed to reduce ecological imbalances.
- **ESZs were notified by the Ministry of Environment, Forests, and Climate Change under the provisions of the Environment Protection Act, of 1986.**
- **The National Wildlife Action Plan prepared by the MoEFCC stated that state governments were to declare land that came within 10 km of protected areas such as national parks and wildlife sanctuaries as Eco-Sensitive Zones.**
- However, the 10 Km rule was not binding, the Union government could declare areas beyond the 10 Km as ESZs if they were found to be ecologically sensitive.
- Commercial mining, mills, polluting industries, hydroelectric projects and commercial uses of wood were some of the activities which were prohibited in the ESZ.
- Activities like tree felling, the establishment of hotels, commercial use of natural water, setting up of electrical cables, changes to the agriculture system like the adoption of heavy technology and pesticides, and widening of roads were regulated within the ESZ.
- However, existing agricultural practices, rainwater harvesting, organic farming, renewable energy applications and green technology were permitted within the ESZ.

Concerns associated with ESZ

- Locals have expressed concerns that the declaration of their homelands as Eco-sensitive zones has adversely impacted their daily lives.
- Traditional practices, employment opportunities, and improvement of living standards have all been restricted as a result of the declaration of ESZ status.
- The encouragement of tourism in the ESZs was a threat to the lifestyles of indigenous communities and could also lead to environmental degradation and in the long term the displacement of the locals.
- Local forest communities have alleged that the government has failed to acknowledge their rights.
- Climate change and the introduction of exotic species in the ecologically fragile zones as part of tourism have affected the naturally occurring species.
- Traditional practices of indigenous communities such as slash-and-burn cultivation as well as the increased demand for forest produce as a result of increasing local populations were among the challenges faced by these fragile environments.

Andhra Mining Agency Told To 'Go Back' By Nimmalapadu Tribals At Public Hearing



Priority: Medium

Primary Source: Down to Earth

Prepp Prelims Booster: Environment

Prepp Mains Booster: Conservation, environmental pollution and degradation, environmental impact assessment. Disaster and disaster management.

Context:

- Recently, a public hearing for mining licenses conducted by the APMDC at Nimmalapadu, a fifth Schedule village in Andhra Pradesh was opposed by the tribals of the area.
- In the Samata judgement, 1997, the Supreme Court had held that only the Konda Dora people or their co-operatives could exploit minerals in fifth Schedule Areas and declared that private mining, even if backed by the government, was illegal.



What happened at Nimmalapadu?

- **Nimmalapadu is a Fifth Schedule village in Andhra Pradesh near the state's border with Odisha.**
- A public hearing was conducted by the Andhra Pradesh Mineral Development Corporation regarding the granting of mining licenses in a 24-hectare area in Nimmalapadu and two other Scheduled villages.
- The hearing was opposed by local tribals who chanted slogans of "Go back" and opposed the use of the region's **calcite reserves**.
- In 1997, the inhabitants of Nimmalapadu obtained a favourable verdict from the Supreme Court against the state and a private firm in order to protect their village from mining.
- However, numerous attempts have been made over the years to violate this judgement, which has all been prevented by the villagers.
- The public hearing was the first one in 31 years and followed the preparation of an **Environment Impact Assessment (EIA)** by the APMDC which aimed to allow environmental clearance for mining licenses in the region.

What has the APMDC said?

- The **APMDC or Andhra Pradesh Mineral Development Corporation** was a state body which was responsible for issuing mining licenses.
- The APMDC has cited the orders of the National Green Tribunal in its EIA 2023.
- According to the orders, public hearings had to be conducted in mine lease projects with individual or cluster areas of around 5-25 ha and environmental clearance had to be obtained from the State Environmental Impact Assessment Authority (SEIAA).

What have the residents said?

- The **three villages Nimmalapadu, Rallagaruvu and Karakavalasa** had led the struggle in 1997 in the matter of the **Samata judgement**.
- The residents have alleged that the APMDC issued licenses five times since 1997 to either individuals or cooperatives from the **Konda Dora tribe** who did not belong to these villages.
- They have claimed that the state has tried to exclude the local people from the process and that no hearings were held regarding these licenses.
- According to the residents, there have been numerous attempts at mining by private interests in the region through benami or proxies.
- These enterprises mined the region and then abandoned the previously fertile land in a barren state.
- Experts have claimed that a proposal for mining should be discussed among the communities of the three villages and approved by the Gram Sabha before a public hearing was conducted as per the provisions of the **PESA Act 1996**.

- A petition sent to the state Industries Department has accused the APMDC of attempting to justify their past mistakes through the hearing and has stated that the APMDC should be held responsible for the mining pits which were abandoned in the last 18 years before holding public hearings for new licenses.
- The 2023 public hearing was attended by sloganeering protestors who claimed that the APMDC was usurping the region's resources to the disadvantage of the locals.
- This was the first hearing in thirty years and villagers across the three villages have demanded that the APMDC's lease be cancelled after the rehabilitation of the mine pits and that any mining activity should be undertaken only through the local community or cooperatives.
- The residents have also demanded royalty for their land as well as an annuity until the project becomes operational. A fund for rehabilitating the land after the company had left was another major demand. They also demanded employment, land for land, a cellular tower, the 24-hour availability of doctors, and transportation facilities.

What was the Samata Judgement?

- In 1997, the Supreme Court ruled that all mining leases granted by the Andhra Pradesh Government in the Scheduled areas were nullified.
- All mining operations in the region were directed to be ceased in order to protect the land of the tribal people.
- The verdict was popularly called the Samata verdict after **Samata, an N.G.O that was closely involved with villages in East Godavari, Srikakulam and Visakhapatnam districts.**
- The apex court had held that only members of the Konda Dora tribe or the cooperatives linked to them were permitted to operate mining leases in the Scheduled areas.
- The Court also stated that the **state government had to keep the interests of the tribals first** even if it decided to conduct mining operations directly.
- The verdict also recognised the **competence of the Gram Sabhas to preserve and protect community resources and reemphasized the right to self-governance of the Adivasis.**

Scheduled Areas

- **Article 244(1)** of the Constitution has stated that Scheduled Areas were to be areas which the President declared to be Scheduled Areas.
- The Fifth Schedule of the Constitution of India was related to the administration and control of specific areas in the states of **Andhra Pradesh, Telangana, Himachal Pradesh, Madhya Pradesh, Maharashtra, Jharkhand, Odisha, Rajasthan, Chhattisgarh and Gujarat** which were called Scheduled Areas.
- The four states of Assam, Meghalaya, Mizoram and Tripura were excluded from the Fifth Schedule, which were included in the Sixth Schedule.
- The President may at any time by order:
 - Direct that the whole or part of a Scheduled Area ceased to be a Scheduled Area or a part of it, or increase the size of the Scheduled Area
 - Alter the Scheduled Area by rectification of boundaries
 - Declare any territory not previously included in a state to be a Scheduled Area when the boundaries of a state have been altered, or a new state established or admitted into the territory of India.
 - Rescind any order related to these provisions in a state or states after consulting the Governor, and make fresh orders redefining the areas which are Scheduled Areas.
- The **criteria for being declared a Scheduled Area** were:
 - Economic backwardness in comparison to neighbouring regions
 - A functional administrative unit such as Taluk
 - Reasonable size and compactness of the area
 - Preponderance of tribal populations
- **Article 339** has given the Union government jurisdiction over the management of Scheduled Areas and the welfare of the Scheduled Tribes.

- **Article 339(1)** has directed the formation of a Commission to report on the administration of the Scheduled Areas and the welfare of the Scheduled Tribes in the states.
- Provisions of Part IX of the Constitution related to Panchayats were not applicable to these areas, but these provisions could be extended as Parliament sees fit. This led to the enactment of the **PESA Act in 1996.**
- The Governor has the authority to modify the legislations enacted by Parliament or state assemblies to fit these areas and is required to submit an annual report to the President or whenever the President sees fit on the administration of Scheduled Areas.

To know more about Scheduled Areas, click [here](#).

U.N. Water Conference

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: UN Water Conference

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

Context:

- Recently, the United Nations 2023 Water Conference was held in New York on March 22-24.
- It was the first such meeting on water after 46 years. The conference coincided with the mid-term comprehensive review of the International Decade for Action.
- The event was co-hosted by the Kingdom of the Netherlands and the Republic of Tajikistan, with the UN Department for Economic and Social Affairs (UN DESA) as Secretariat.



What is the aim of the UN 2023 Water Conference?

- The UN 2023 Water Conference, "**Our watershed moment: uniting the world for water**", aims to support the achievement of internationally agreed water-related goals and targets, including those contained in the **2030 Agenda for Sustainable Development.**
- UN 2023 Water Conference – the first in almost 50 years – could be a watershed moment for **UN Sustainable Development Goal 6: ensuring the sustainable management of water and sanitation for all.**
- These are the **critical foundations** on which many of the 17 Sustainable Development Goals (SDGs) depend, especially health, food, gender equity, education, livelihoods, industry, climate and the environment.

What are the conference's outcomes?

- The UN 2023 Water Conference (22-24 March, 2023) saw the adoption of the **Water Action Agenda**, representing **voluntary commitments** of nations and stakeholders to **accomplish the Sustainable Development Goals (SDGs)** and their targets connected to water.
- The water conference discussed the complexity of today's water problems, but **no binding commitments were made.**
- Instead, there were **713 different voluntary commitments** made by NGOs, governments, businesses, and philanthropic donors; of these, 120 were pertinent to India.

- These included a **\$50 billion pledge by the Indian government** to enhance the availability of potable water in rural areas as part of the **Jal Jeevan Project**.
- Jal Jeevan Mission was announced by the Prime Minister, Shri Narendra Modi on 15th August, 2019 to provide every rural household with tap water connection by 2024.
- The commitments announced at the conference covered various aspects of water management, including technology, data and models, knowledge sharing, capacity building, civil society, and environmental, social, and corporate governance.
- **Technology** – The conference highlighted specific innovations in wastewater treatment or solar treatment of water in remote areas, and a number of proposals for incubation platforms, including the IBM Sustainability Accelerator, focused on water management.
- **Data Analysis** – The conference emphasized on the importance of anticipating potential impact before every large investment. Importance of Simulations and large amounts of data was emphasized. Sensors and satellite data were two efficient ways to generate data. Other initiatives that provided data analysis capabilities are the World Meteorological Organization's Hydrological Status and Outlook System.
- **Knowledge sharing** – The conference emphasized on the need to accelerate **cross-learning** as solutions to most of these problems already exist, but each region and country often reinvents the wheel. Important tool regarding knowledge sharing is the **W12+ Blueprint, a UNESCO platform**. It hosts city profiles and case studies of programs, technologies, policies that address common water security challenges.
- **Capacity building** – Importance of capacity building was highlighted as many people lack access to basic services .
- Efforts like the Making Rights Real initiative and the 'Water for Women Fund' were highlighted as mechanisms to help marginalized communities and women understand how to exercise their rights and achieve more effective and sustainable water, sanitation, and hygiene outcomes.
- **Civil society** – Several platforms for collective action by civil society groups were discussed, including **creating transnational networks** to advocate for national and international bodies to **criminalize the use of certain pesticides harmful to aquatic life**.
- **Environmental, social, and corporate governance** – The conference concluded that a big barrier to farmers and industries using water more efficiently is that they **have no incentive**. Specifically, farmers aren't becoming more efficient or going pesticide-free unless consumers are willing to pay a premium for more sustainably produced goods.

Conclusion

- The water sector is particularly prone to fragmentation because water problems tend to be local and need local solutions. So there is an inherent problem of how we can mobilise globally to solve local water problems.
- As today's problems are more complex and these problems are inherently harder because they can't be fixed by better infrastructure. They require tough political choices, empowering agencies, and strengthening democratic processes.

Pollution Control Boards Aren't Underfunded But Investing Their Surplus Into Fixed Deposits: Report

Priority: **Medium**



Primary Source: Down to Earth

Prepp Prelims Booster: Environment

Prepp Mains Booster: - Statutory, regulatory and various quasi-judicial bodies, GS3 - Conservation, environmental pollution and degradation, environmental impact assessment

Context:

- Recently, a report released by the Centre For Policy Research has found that 10 State Pollution Control Boards and Pollution Control Committees had invested their annual surplus in short, medium-term fixed deposits worth ₹2,893 crores as of 31st March 2021.

- Central Government funding to SPCBs is regular but inadequate while funding from state governments is largely non-existent.

What has the CPR report revealed?

- **“The State of India’s Pollution Control Boards: Are they in the green?”** was released by the Centre for Policy Research on April 28, 2023, as the fourth part of its “The State of India’s Pollution Control Boards” series.
- The report has questioned whether the State Pollution Control Boards (SPCB) and Pollution Control Committees (PCC) are effectively fulfilling their pollution control mandate.
- The report found that **10 pollution control authorities i.e. 9 PCBs and 1 PCC in the Indo-Gangetic Plains had invested their annual surplus in short, medium-term funds worth ₹2,893 crores as of March 31st, 2021**.
- This surplus should have been invested in manpower, infrastructure, and equipment in an ideal scenario.
- The report concluded that SPCBs did not necessarily function effectively despite being funded adequately.
- The authors of the research paper filed RTI applications to seek information on the revenue and expenditure of the nine SPCBs and one PCC for three financial years: 2018-19, 2019-20, and 2020-21.
- The information received was categorized into standard templates based on the format of annual reports.



SPCB

- The **State Pollution Control Boards** were constituted under the **Water (Prevention and Control of Pollution Act) 1974**.
- Its mandate was later expanded to include the **Air (Prevention and Control of Pollution) Act, 1981**.
- The SPCB supplements the Central Pollution Control Board by implementing environmental rules and laws in the state.
- It is a **statutory organization** whose members are nominated by the respective state governments.

PCCs

- The **Pollution Control Committee** performs similar functions to the SPCB.
- The Pollution Control Committees are established in Union Territories.

On Funding of PCBs

- The authors of the CPR report found that a **majority of the Boards examined generated their revenue by issuing no-objection certificates to polluting industries and granting them permits to establish and operate**.
- **Central government funding is regular but inadequate** as it is provided only for existing central sector schemes.
- **Funding from state governments is irregular in comparison with no funding from state governments to SPCBs/PCCs in eight of the ten states examined**.

- According to the research paper, **licensing and consent fees, and the interest garnered from investments are the only methods for revenue generation of the Boards** as they cannot water cesses any longer.
- As a result, the Boards are incentivized to focus on consent management as it is their only regular revenue source.
- According to the report, most Boards struggled to spend all the surplus generated by them over the three years between 2018 and 2021.
- Pay and allowances for staff comprise over half of the expenditure of the Pollution Control Boards with it rising as high as 80% in some PCBS.
- **Spending on new infrastructure such as lab facilities is generally low despite the poor state of infrastructure** across the ten states, with a few exceptions.
- Spending on studies, research, and development comprises a minuscule portion of the overall expenditure of the Boards.

Issues that need to be addressed

- Experts including a former member of the 15th Finance Commission and the head of the Centre for Air Pollution Studies highlighted the **fragmented nature of the governance structure** as a major issue to be addressed.
- According to former leadership and staff of the CPCB and SPCBs, the NGT order empowering PCBs to impose environmental compensation was a necessary replacement for the revenue lost when the water cess was subsumed under the GST regime.

Water cess was levied on water consumed by local authorities and industries to add to the funds available with the CPCB and SPCBs to address water pollution.

- Another criticism noted by experts was that **SPCBs are provided responsibility but no power**. On the other hand, urban local bodies are granted too much power and responsibilities but there is no clear structure under which responsibilities are allocated among the departments.
- They have cited the example of Karnataka, where the ULB thought it had to utilize the fund for clean air. It was only after two-and-a-half years that they realized that the money had to be allocated to the departments responsible for implementing air pollution control measures.
- The State Pollution Control Board has been instrumental in highlighting the concerns of the departments under the **National Clean Air Programme**.
- The PCBs were held responsible as in Karnataka but lacked power due to the inefficient structure.

Way Forward

- The research paper also noted that the amendments proposed to the Air Act and Environment Protection Act as part of the **Jan Vishwas bill** pending in Parliament would significantly improve the regulatory structure.
- If the bill becomes law, adjudicatory powers would be placed in the hands of Central government-appointed bureaucrats and fines would be deposited in the environment protection fund of the Centre.
- These changes were expected to affect the role of the SPCBs in the regulatory framework and their ability to generate revenue from environmental compensation.
- The SPCBs need to be included and ensured of a greater role in a forward-looking regulatory regime that aims to reduce air pollution through modern approaches and airshed level regulation.

Disaster Management

Dealing With Extreme Heat & Urban Heat Island



Priority: **Medium**

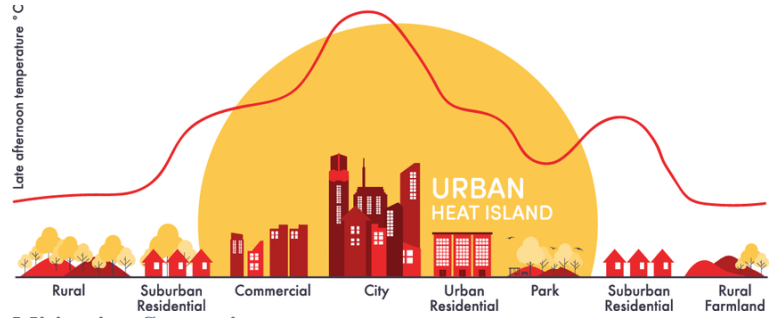
Primary Source: The Hindu

Prepp Prelims Booster: Disaster Management

Prepp Mains Booster: Disaster and Disaster Management

Context:

- This article is written by Varun Gandhi, a Parliamentarian.
- In this article, he has discussed various mitigation measures to deal with Extreme heat.



Mitigation-Suggestions

- **Planting trees:** Planting trees could help mitigate part of the problem. Ideally, for every urban citizen in India, we should have at least seven trees in the urban landscape.
- **Planning:** In addition to pushing for an increase in the density and area of urban forests, development plans for Tier 2 and Tier 3 cities can set up a mandate to increase urban surface area that is permeable.
- **Restoration of water bodies:** Expansion and restoration of dead and decaying ponds/lakes may also help ensure ecological functioning along with reducing urban heat.
- Promotion of public transport
- **Reducing landfills:** Methane production from mountainous landfills may lead to fires, often exacerbating urban heat and weather variability in cities. Promotion of waste segregation, along with solid waste management at source, can be beneficial.
- **Reduction of heat Island effect:** Promoting greater usage of permeable materials in civic infrastructure and residential construction and enhancing natural landscapes in urban areas.
- Urban layouts such as brick jalis for ventilation and terracotta tiles to allow hot air to escape, and restrictions on anthropogenic heat emissions from vehicles, factories, etc. may be considered.
- Upgradation of building standards to avoid usage of heat-absorbent galvanized iron and metal roof sheets.
- Usage of cleaner cooking fuels to reduce indoor air pollution, which may also help reduce urban heat.
- Streets with low ventilation may need further expansion, or an increase in natural vegetation.
- **Local weather:** Weather forecasting ability should be improved including the potential impact of heat on food production.
- Current econometric models associated with food inflation majorly focus on the monsoon, minimum support prices and vegetable prices. Given the impact of heat on food production, storage and sale, the local heat trends should also be incorporated in forecasting.
- **Detailed policies:** Detailed policies and guidelines on weather variability and urban heat management at the State, district, city and municipality ward levels are needed.

Case study of Chandigarh

- The urban design of Chandigarh prioritized **climate responsiveness** as a key factor.
- The city was set up by the foothills of the Shivaliks, between two river beds, while natural green belts were incorporated within the city's master plan.
- **Green belt:** In order to **reduce urban sprawl** and to serve as a **buffer between the residential city and the industrial suburbs** a large green belt of mango trees was planted.
- The uncontrolled and disproportionate expansion of an urban area into the surrounding countryside, forming low-density, poorly planned patterns of development is described as urban sprawl.

- **Architecture:** A model for creating architecture that responds to the climate was taken from regional architecture, such as the mud huts in the area.
- **Waterbodies:** To aid in the cooling of the city, a small rivulet was dammed to create the Sukhna lake, and small bodies of water were developed near large buildings.
- Over time, modern construction materials and factors such as climate change and traffic congestion have impacted the original design of Chandigarh. However, the underlying principles of climate-responsive urban design are still applicable across Indian cities.

Impact of Extreme heat

- **Agriculture:** Weather variability has consequences, especially for agriculture. For example, 90% of India's cumin production is from Gujarat and Rajasthan.
- The recent weather variability has destroyed the majority of the cumin crop in Rajasthan.
- It is only a short step from agricultural crop losses to drought and greater mortality.
- **Urban Heat Island:** Due urban heat island effect, cities are 4-12°C higher than rural outlying areas. High humidity levels in cities have further worsened the perceived temperature, with wet bulb temperatures frequently exceeding 32 degrees Celsius in many urban areas.
- An urban heat island occurs when a city experiences much warmer temperatures than nearby rural areas.
- The Wet Bulb temperature is the temperature of adiabatic saturation. This is the temperature indicated by a moistened thermometer bulb exposed to the airflow.
- **Productivity:** According to a study, workers who perform heavy activities lose 162 hours a year due to heat exposure.
- Temperature increases have a direct impact on labour productivity. About 50% of India's workforce is estimated to be exposed to heat during their working hours.
- This includes marginal farmers, labourers at construction sites and street vendors, even gig economy workers are affected.

Weather trends

- Between April and May 2022, 350 million Indians were subjected to severe heat stress.
- In Punjab, Haryana, Uttar Pradesh, Bihar, and Rajasthan districts, summer temperatures increased on average by 0.5 to 0.9°C between 1990 and 2019, and 54% of India's districts experienced an increase in winter temperatures.
- The maximum temperature is predicted to increase by 1.5–2°C in around 455 districts and by 2-3.5°C in 100 districts between 2021 and 2050.
- Similarly, in about 485 districts, wintertime temperatures will rise by 1 to 1.5 degrees Celsius.
- Such a sharp rise in urban temperatures is rare. However, with climate change exacerbating local weather patterns, we are likely to see April-May temperatures reaching record highs every three years.

Way forward

- For urban migrants and small-scale farmers, an El Nino-influenced monsoon is bad news therefore in order to help Indians adapt to these conditions, policymakers must implement early mitigation measures and structural infrastructure improvements.

Internal Security

ED Initiates Probe Into BBC India's Alleged Foreign Exchange Violations



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Enforcement Directorate

Prepp Mains Booster: Challenges to internal security through communication networks, the role of media and social networking sites in internal security challenges, basics of cyber security; money

laundering and its prevention; Various Security forces and agencies, and their mandate.

Context:

- Recently, the Enforcement Directorate has initiated an inquiry into the British Broadcasting Corporation (BBC) India under the **Foreign Exchange Management Act (FEMA)** for suspected violations.
- The probe is essentially looking at purported foreign direct investment (FDI) violations by the company.



What is the issue?

- The Income-Tax Department conducted surveys at the BBC's offices in New Delhi and Mumbai in February regarding what it claimed to be "non-compliance" with transfer pricing regulations and a significant diversion of profits.
- Transfer pricing deals with the determination of the prices charged in transactions performed between related companies. Transactions between related parties should observe the arm's length principle.
- The department gathered several evidences pertaining to the operation of the organisation that indicates that tax has not been paid on certain remittances which have not been disclosed as income in India by the foreign entities of the group.
- The department alleged that the company used the services of seconded employees (staff internally transferred on a temporary basis), for which reimbursement was made by the Indian entity to the foreign entity concerned.
- Such remittance was also liable **to be subject to 'withholding tax'**, that has not been done.
- Withholding tax is the amount employer deducts from the employee's salary and pays to the government as the individual's tax liability
- The surveys on BBC are focused on investigating the alleged price manipulation of unauthorized benefits, including tax advantages.

What is the aim of the FEMA (Foreign Exchange Management Act)?

- The Foreign Exchange Regulation Act, or FERA, 1973 was replaced by FEMA in 1999 in response to the shifting economic circumstances in a post-liberalized India to boost external trade and payments and promote the development of the foreign exchange market in India.
- FERA was designed for an era in India marked by a shortage of foreign exchange; it was aimed at conserving forex to ensure it was utilized only in the interest of the development of the country.

Directorate of Enforcement

- The Directorate of Enforcement is a multi-disciplinary organization mandated with the investigation of offense of money laundering and violations of foreign exchange laws.
- ED's administrative control is under the Department of Revenue, Ministry of Finance.

The statutory functions of the Directorate include the enforcement of following Acts:

- **The Prevention of Money Laundering Act, 2002 (PMLA):** It is a criminal law enacted to prevent money laundering and to provide for

confiscation of property derived from, or involved in, money laundering and for matters connected therewith or incidental thereto.

- **The Foreign Exchange Management Act, 1999 (FEMA):** It is a civil law enacted to consolidate and amend the laws relating to facilitating external trade and payments and to promote the orderly development and maintenance of the foreign exchange market in India.
- **The Fugitive Economic Offenders Act, 2018 (FEOA):** This law was enacted to deter economic offenders from evading the process of Indian law by remaining outside the jurisdiction of Indian courts.

The Terrorist-Drug Nexus: Why Drug Trafficking Is A Serious Security Issue



Priority: Medium

Primary Source: Indian Express

Prepp Prelims Booster: Security Issues

Prepp Mains Booster: Role of external state and non-state actors in creating challenges to internal security, Security challenges and their management in border areas - linkages of organized crime with terrorism, Various Security forces and agencies and their mandate.

Context:

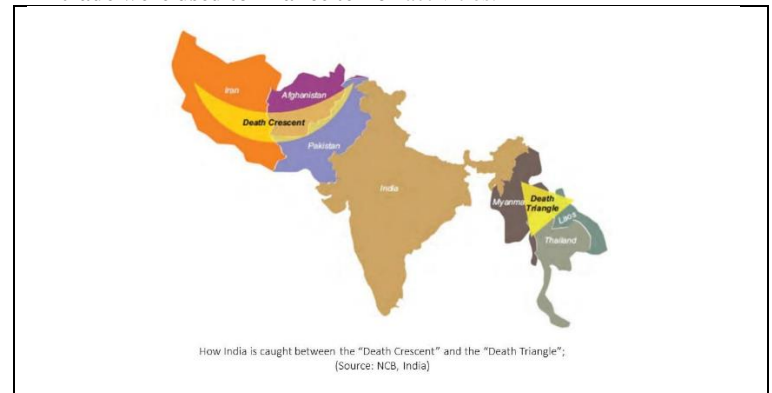
- The author, Rakesh Asthana, a retired IPS officer, has discussed the illicit trade of narcotics in India in this article titled "Terror of Narco-Networks" published in the Indian Express on 18th April 2023.
- India was located between the Golden Crescent and Golden Triangle and was a major transit and commercial route for illicit drugs such as methamphetamine, cocaine, heroin etc.



Narcotics Trade in India

- The narcotics trade is a social harm to youth and families while the money it generates was often diverted towards activities that threaten the national security of the country.
- **India was located between the Golden or Death Triangle and the Golden or Death Crescent** which has led to the country being flooded with dangerous narcotics such as methamphetamine, heroin and cocaine.
- **The two regions were responsible for meeting 90% of the global demand for drugs** with drug lords of the regions supported by some intelligence agencies.
- India was both a large market and a convenient transit route for the illicit narcotic industry.
- According to reports, the illicit trade of narcotics generated phenomenal profits.
- Regions of Pakistan adjoining Afghanistan were used by traffickers to convert Afghan opium to heroin while the Sha and Kachin provinces of Myanmar bordering China were notorious for supporting the production of heroin and methamphetamine which along with illicit arms were transported through the porous borders into India.

- The maritime route has become increasingly popular as a route for the entry of narcotics into the country, especially following the revocation of Jammu and Kashmir's special status and the state being divided into the Union Territories of Ladakh and Jammu and Kashmir.
- The Indian Coast Guard was making frequent seizures of large containments of illegal substances with 2,160 kg of meth seized near the Andaman and Nicobar Islands.
- Synergies have also been developed with the security agencies and coast guards of neighbours such as Sri Lanka, Maldives and Bangladesh in order to counter the threat uniformly and efficiently.
- Drones have been used to supply drugs and weapons across the border in Punjab which has forced security agencies to develop new strategies to neuter the threat.
- Investigations by Indian security agencies have revealed that the **cross-border drug traffic was related to terrorist groups like the Lakshar-e-Toiba(LeT) and the Hizbul Mujahideen and that profits from the trade were used to finance terror activities.**



Golden Triangle: The **Golden Triangle or the Death Triangle**, which has been a hub of illegal drug trade since the 1980s, consists of the border regions of **Myanmar, Laos and Thailand**. It centred around the confluence of the Mekong and Ruak rivers. It was considered the largest producer of opium till the 21st century.

Golden Crescent: The **Golden Crescent or the Death Crescent**, which was established in the 1950s, is **the largest producer of opium and is located at the crossroads of South, Central and West Asia**. It coincides with the mountain regions of **Afghanistan, Pakistan and Iran**. The name was derived from the shape of the mountains of the region.

Role of the Darknet

- India was a destination for cocaine which was supplied by South American drug cartels with investigations indicating that the cartels were connected to Singapore, Canada, Australia, Hong Kong and Europe-based NRIs with Khalistani terrorists and gangsters in India.
- Studies have revealed that **62% of the darknet was used for illicit drug trafficking as the anonymity and lower risk associated with darknet markets had disrupted traditional drug markets and trade.**
- The ability to pay through Cryptocurrency and to avail of doorstep deliveries has increased the number of darknet-related narcotics transactions.
- **The dark net has aided in the interconnection of global drug cartels and the trafficking of lethal narcotics such as pharmaceutical opioids and laboratory-made synthetic substances.**
- Organized gangs, which largely engaged in extortion in their local communities, have started to use the darknet for the trafficking of drugs and weapons.
- Using these networks to carry out their illegal objectives has proven to be simpler for terrorist organisations.

Way Forward

- Security agencies will need to implement coordinated effects in order to counter the growing threat of illicit trade in drugs.

- However, the success rate of security agencies in apprehending darknet transactions has been very low.
- Technical policing methods and surveillance similar to those used by India to capture illegal traders and expose their international counterparts should be adopted by nations across the world.
- Security authorities must adequately address the emerging and unsettling trend of the relationship between organised gangs and terrorists.

In New Delhi, George Soros Is Old, Dangerous And On A Watchlist — At UN, He Isn't A Problem



Priority: Medium

Primary Source: Indian Express

Prepp Prelims Booster: NGOs

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

Context:

- Recently, an investigation by the Indian Express revealed that many of the NGOs and CSOs funded by the UNDEF, of which India was the fourth largest contributor, were linked to George Soros despite his being included on an Indian watchlist.
- India was a founding member of the UN Democracy Fund or UNDEF which was established in 2005 with the mission of promoting democracy across the world.

What is the UNDEF?

- The **United Nations Democracy Fund** is a General Trust Fund of the UN that was formed to support democratisation efforts around the world.
- It was established in 2005 at the **World Summit** and was co-sponsored by the then Prime Minister of India, Manmohan Singh and US President George Bush in the backdrop of their discussions over the Indo-US civil nuclear deal.
- The majority of UNDEF funds have been distributed to civil society organisations with the body aiming to financially support projects that strengthen civil society, human rights, and democratic participation.
- **India, as a founding member, was the fourth largest contributor** to the UNDEF contributing over \$32 million since 2005. In 2022, India contributed \$150,000, the fourth highest among all 45 donors behind the USA, Sweden and Germany.
- The **Advisory Board**, which is constituted by the Secretary-General is comprised of the Fund's eight largest contributors (member states) and six other states including one small island nation and developing state in order to ensure diversity of geographical representation. India has been a member of the Board since its founding.
- The Board also included two individual members and two Civil Society Organisations. The two CSOs on the Board now are CIVICUS and Transparency, Accountability and Participation Network.
- CIVICUS was a Johannesburg-based global alliance of civil society organizations that monitors the civic space. Its latest report had classified India as repressed on the criteria 'civic freedoms' since 2019.



Funding the UNDEF

- The UNDEF invites and receives around 3,000 proposals from NGOs around the world on an annual basis.
- The Advisory Board considers these proposals and recommends them to the Secretary-General for approval with around 30 - 50 organisations being selected for funding.
- Over the course of the 15 Annual Rounds of funding conducted by the UNDEF, it has supported over 880 two-year projects in more than 130 countries.
- In the years 2005, 2006, 2008, 2009, and 2011 India contributed \$5 million to the fund while no contributions were made in 2007 and 2010.
- India's contributions to the Fund have declined since 2012 when it was \$4.71 million and dropped to \$1.85 million in 2013.
- India has further reduced its funding to the UNDEF since 2013 contributing \$200,000 in 2013 and 2015 while in 2016, it dropped to just \$50,000.
- India recorded no contributions in 2017 while the country's contribution rose in 2018 and 2019 to \$100,000 and further to \$150,000 In 2020, 2021 and 2022.

INDIA CONTRIBUTION TO UNDEF SINCE '05

2005	\$5 mn
2006	\$5 mn
2007	No contribution
2008	\$5 mn
2009	\$5 mn
2010	No contribution
2011	\$5 mn
2012	\$4.71 mn
2013	\$1.85 mn
2014	\$2,00,000
2015	\$2,00,000
2016	\$50,000
2017	No contribution
2018	\$1,00,000
2019	\$1,00,000
2020	\$1,50,000
2021	\$1,50,000
2022	\$1,50,000

What has the investigation revealed?

- An investigation by the Indian Express has revealed that **since 2015, 68 of the 276 projects funded by the UNDEF to strengthen governance were implemented by Civil Society Organisations connected to businessman George Soros's Open Society Foundation** or its associates as a recipient or a partner.
- The year 2015 was chosen as the starting point of the investigation as it coincided with the Indian Government's crackdown on foreign funding of NGOs through new rules introduced under the Foreign Contributions Regulation Act (FCRA).
- UNDEF, of which India is one of the largest sponsors, was closely linked to the **OSF, which has been placed on a watchlist by the Ministry of Home Affairs.**
- As a result of its being included in the MHA Watchlist, OSF was not permitted to extend any assistance to an organisation or individual in India without the prior approval of the MHA.

Key findings:

- 2015: 3 out of 44 recipients were linked to the OSF including Action Associative in Tunisia which had connections to the OSF-funded Avocats san Frontieres.
- 2016: 6 of the 43 recipients including the OSF affiliate Search for Common Ground in the Central African Republic were linked to the OSF.
- 2017: 15 of the 48 recipients were linked to the OSF including the OSF-funded Kofi Annan Foundation.
- 2018: Of the 46 recipients, 12 were OSF-associated like the Cairo Institute for Human Rights Studies, which received donations from the OSF.
- 2019: 11 of the total 32 beneficiaries including the OSF partner, the Africa Check Foundation could be connected to the OSF.
- 2020: 10 of the 30 grantees of UNDEF funds were OSF-backed including the Lebanon-based NGO, the ABAAD Centre for Gender Equality.
- 2021: 11 of the 33 CSOs that obtained UNDEF funding were linked to the OSF. This included ABAAD's partner, the Lebanese Centre for Human Rights

Conclusion

The investigation has revealed the imperatives of governance and diplomacy where the regime may have to adopt a hardline stance domestically in order to please its domestic vote bank but adopt a softer approach in the international arena s seen in the lack of opposition to the funding of an entity included in the country's watchlists.

The Right To Litigate: On Limiting The Industrial Exploitation Of Nature, Foreign NGO Funded Strikes in India



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Indian Polity

Prepp Mains Booster: GS3 - Environment; Internal Security

Context:

- Recently, the **Central Bureau of Investigation** has registered an investigation against lawyer Ritwick Dutta and his organization, the Legal Initiative For Forest and Environment (LIFE), for allegedly violating the **Foreign Contribution Regulation Act's (FCRA) rules.**
- LIFE, along with the US-based NGO EarthJustice, has also been **accused of attempting to stall coal projects in the country through litigation.**
- The allegation is that the NGO is using foreign funds to encourage litigation that would stall existing and prospective coal-fired plants in India.

Key Points

- As a party to the **UN Framework Convention on Climate Change** and other significant accords, India has committed to gradually reducing its

reliance on fossil fuel sources and reaching 'net zero', or sourcing practically all power from non-fossil fuel sources, by 2070.

- India has also consistently endorsed reports by the **Intergovernmental Panel on Climate Change (IPCC)** that speak of the urgency of ensuring global temperatures do not exceed 1.5°C above pre-industrial levels, necessitating a 45% reduction in global net anthropogenic CO₂ emissions from 2010 levels by 2030.

How foreign funded NGOs pose a threat to energy security?

- Foreign-funded NGOs pose a danger to national economic security because they have a negative influence on Indian economic growth, citing actions such as rallies against nuclear and coal projects and sponsorship of "sympathetic" research.
- Numerous pan-India organizations have assisted in anti-nuclear protests and have made massive efforts to shut down India's coal-fired power plants and coal mining activity.
- In the past protests have been organized by non-governmental organizations (NGOs) against nuclear power facilities, uranium mines, coal-fired power plants, farm biotechnology, big industrial projects, hydropower stations, and extractive industries.
- **For Example:** In 2014, Greenpeace was named a danger to national economic security by Intelligence Bureau study on foreign-funded NGOs "negatively impacting economic development" in India. Greenpeace was also accused of breaking the terms of the Foreign Contribution (Regulation) Act of 2010 (FCRA) and funding "sympathetic studies" at the Tata Institute of Social Sciences (TISS) and IIT-Delhi.

Importance of Coal

- **Availability:** Coal is India's **most essential and plentiful fossil fuel.** It provides 55% of the country's energy requirements. The indigenous coal provided the **foundation for the country's industrial legacy.**
- India's current **commercial primary energy consumption** per capita is around 350 kgoe/year, which is significantly **lower than that of wealthy countries.**
- India's energy consumption is predicted to rise as a result of the country's growing population, developing economy, and **desire for a better quality of life.**
- **Common and Differentiated Responsibility:** Under the principles of '**Common and Differentiated Responsibility,**' India has preserved its right to rely on coal plants in the interim because it is still a developing country.
- The principle of common but differentiated responsibility endorses the asymmetrical commitments of different states to ensure universal participation and effective implementation – as a 'lowest common denominator' solution.
- **Accessibility:** Given the low reserve potentiality of petroleum and natural gas, the environmental constraints on hydel projects, and the geo-political perspective of nuclear power, coal will continue to play a central role in India's energy situation.

Issues faced by coal projects

- **Environmental activism:** Foreign funded NGOs raise concerns about the **influence of foreign funding on the decision-making process and policy outcomes** related to coal energy projects, and question the motives and accountability of these NGOs.
- The vested interests, and their actions could hinder or delay coal energy projects, leading to **increased costs and delays in infrastructure development.**
- **Environmental clearance:** The commissioning of many have been delayed because of insufficient environmental approvals, land acquisition, and redevelopment and rehabilitation issues. These are the result of National Green Tribunal judgements or a failure to respect norms established primarily under provisions of the Environment Protection and associated laws.
- **Funding:** Funding for new coal plants is becoming increasingly difficult, with international lending institutions refusing to support such projects.

- **Inefficiency:** Many coal plants are inefficient and rely on lenient environmental regulations while being important to India's power requirements.

Foreign Contribution Regulation Act (FCRA)

- The Foreign Contribution Regulation Act (FCRA) was implemented during the Emergency in 1976, in response to concerns that foreign forces were meddling in Indian affairs.
- The law attempted to control foreign donations to persons and organizations such that they functioned "in a manner consistent with the values of a sovereign democratic republic."
- The government amended the FCRA in 2010 and 2020 to provide stronger control and monitoring over the receiving and use of foreign donations by non-governmental organizations.

Conclusion

The significance of protecting the environment and the role of the judiciary in ensuring that citizens have the right to litigate against projects that have the potential to harm the environment should be emphasized. Hence, it calls for a balance between economic growth and environmental protection to ensure a sustainable future.

Dima Hasao Insurgent Group Signs Peace Pact With Assam, Centre



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Dima Hasao

Prepp Mains Booster: Role of external state and non-state actors in creating challenges to internal security; Security challenges and their management in border areas - linkages of organized crime with terrorism.

Context:

- Recently, Dima National Liberation Army (DNLA)/Dima People's Supreme Council (DPSC), an Assam-based insurgent group that operates in the Dima Hasao district, signed a peace agreement with the State Government and the Centre in the presence of Union Home Minister Amit Shah and Chief Minister Himanta Biswa Sarma.
- According to the home minister after the signing of the memorandum of understanding (MoU), the agreement would put a complete end to insurgency.

Background

- Following an appeal by the Chief Minister, the DNLA had declared a unilateral ceasefire for a period of six months on September 2021. The ceasefire has been extended since then.
- The DNLA announcement in 2021 came two weeks after the insurgent group allegedly fired upon a convoy of seven trucks in the Dima Hasao district, killing five people and injuring one.
- The DNLA was founded in April 2019 and has since waged an armed insurrection to secure an independent region for the tribal people of Dimasa.

What is the significance?

- **End of insurgency:** The agreement would bring a complete end to the insurgency in Dima Hasao district of Assam.
- Under the agreement, the representatives of DNLA have agreed to abjure violence, surrender all arms and ammunition,
 - disband their armed organization,
 - vacate all camps occupied by DNLA cadres and
 - join the peaceful democratic process as established by the law.
- As a result of this agreement, over 168 cadres of DNLA are joining the mainstream by laying down their arms.
- **Dimasa Welfare Council:** Under the agreement, Dimasa Welfare Council would be set up by the Assam government to **protect, preserve and promote social, cultural, linguistic identity to meet political, economic and educational aspirations** and would ensure speedy and

focused **development of the Dimasa people** residing outside the jurisdiction of the Autonomous Council.

- The MoU also provides for the **appointment of a Commission** under Paragraph 14 of the **Sixth Schedule** to the Constitution of India to examine the demand for the inclusion of additional villages contiguous to the **North Cachar Hills Autonomous Council (NCHAC) with the Council.**
- **Rehabilitation:** It provides for necessary measures to be taken by the Government of India and the Government of Assam to rehabilitate the surrendered armed cadres of DNLA.
- **Development package:** A Special Development package of ₹500 crore each, would be provided by the Government of India and Government of Assam over a period of five years, for all-round development of NCHAC as well as Dimasa people residing in other parts of the State.



About Dimasa People

- The Dimasas are one of the major tribes and a culturally rich community of Assam.
- At present the major population of the community has been residing in the hill district of **Dima Hasao** (erstwhile North Cachar Hills) and in scattered numbers in the districts of **Karbi Anglong, Nagaon and also in the Barak valley area.**
- Outside Assam the Dimasas are also settled in Nagaland.
- **Language:** The language spoken by the Dimasa belong to the **Tibeto-Burman linguistic group.** The word "Dimasa" stands for "the son of big river".
- Historically, as the Dimasa kingdom flourished on the banks of different rivers, the people have preferred to introduce themselves as the son of a big river. Archaeological remains at Dimapur (Nagaland), Maibang (Dima Hasao district) and Khaspur (Cachar district) speak about their kingdom in these places at different phases of history.
- **Society:** A very outstanding feature of the Dimasa culture and an important aspect of their social relation is the existence of male and female clan. The **male clan** is called **Sengphong** and the **female clan** is known as **Jadi or Julu.** Hence a Dimasa bears allegiance to both male and female clan.
- **Festival:** Busu festival is observed in relation to the harvesting period of their jhum cultivation.
- When Busu is celebrated for three days it is called Busu Jidap, if it is observed for five days then is called Surem and when it is celebrated for seven days then it is called Hangseu Busu
- The celebration of the Busu festival follows with singing and dancing to the accompaniment of traditional musical instruments called the khram(drum) and the moori (blowing instrument).

Sixth Schedule

- To protect the rights of tribal people, the Sixth Schedule allows the formation of Autonomous District Councils in **Assam, Meghalaya, Tripura, and Mizoram.**
- This provision is found in Articles 244(2) and 275(1) of the Indian Constitution.

- It was passed by the Constituent Assembly in 1949 and aims to protect the **rights of the indigenous people** through the **formation of Autonomous District Councils (ADC)**.
- ADCs are bodies that represent a district and have varying degrees of autonomy within the state legislature, according to the constitution.
- The governors of these states are **empowered to rearrange the boundaries of the tribal areas**.
- He/she can include or exclude any area, increase or decrease the boundaries, and combine two or more autonomous districts into one.
- The Governor can also change/alter the names of the Autonomous Regions **without any separate legislation**.
- The Sixth Schedule, in addition to ADCs, provides for separate Regional Councils for each area designated as an autonomous region.
- There are ten autonomous districts in the Northeast, three each in Assam, Meghalaya and Mizoram, and one in Tripura.
- These areas are referred to as the **district council** of (name of district) and the regional council of (name of region).
- **Each autonomous district** and regional council has a maximum of 30 members, four of whom are appointed by the governor and the rest are elected. They are all in power for a five-year term.
- The **Bodoland Territorial Council**, however, is an exception as it can constitute up to 46 members out of which 40 are elected.
- Thirty-five of the 40 seats are reserved for Scheduled Tribes and non-tribal communities, five are unreserved, and the remaining six are nominated by the governor from underrepresented communities in the Bodoland Territorial Areas District (BTAD).
- The ADCs have **civil and judicial powers** and can establish village courts within their jurisdiction to hear cases involving tribes.
- The governors of the states covered by the Sixth Schedule specify the jurisdiction of high courts in each of these cases.
- With the governor's approval, the councils can also make legislative laws on issues such as land, forests, fisheries, social security, entertainment, public health, and so on.
- The **central and state governments' roles** are limited by the territorial jurisdiction of these autonomous regions.
- Acts passed by Parliament and state legislatures may or may not be enacted in these regions unless approved by the President and the governor, with or without changes to the laws for the autonomous regions.

GENERAL STUDIES 4

Why PM CARES Fund Is Not Subject To Public Audit Or Covered Under RTI, Asks Congress

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: PM CARES Fund

Prepp Mains Booster: Aspects of governance, transparency, and accountability; Information sharing and transparency in government, Right to Information

Context:

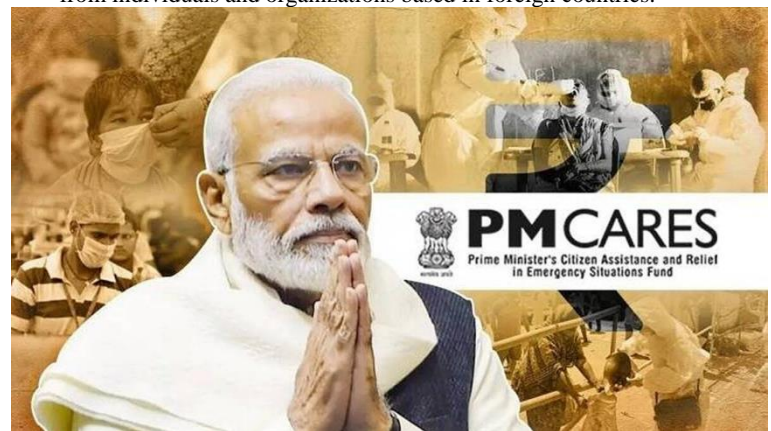
- Recently, the Congress alleged that the **PM CARES Fund** is shrouded in secrecy and asked why it has no transparency, or accountability, and is not subjected to any audit or covered under the **Right to Information (RTI) Act**, despite 60% of its funds coming from public sector undertakings (PSUs).

What is PM CARES Fund?

- 'Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund) is a **public charitable trust**.
- It has been set up keeping in mind the need for having a dedicated fund with the primary objective of **dealing with any kind of emergency or**

distress situation, like posed by the COVID-19 pandemic, and to provide relief to the affected.

- The trust deed of **PM CARES Fund** has been registered under the Registration Act, 1908 New Delhi on 27th March 2020.
- **Members:** **Prime Minister** is the **ex-officio Chairman** of the PM CARES Fund and the Minister of Defence, Minister of Home Affairs and Minister of Finance, the Government of India are ex-officio Trustees of the Fund.
- The Chairperson of the Board of Trustees (Prime Minister) shall have the power to nominate three trustees to the Board of Trustees who shall be eminent persons in the field of research, health, science, social work, law, public administration, and philanthropy.
- **Administration:** The fund is administered on an honorary basis by the Additional **Secretary/ Joint Secretary**, in charge of the PM CARES Fund in the **PMO**, as Secretary of the PM CARES fund, who is assisted on an honorary basis by other designated officers in the PMO. The Prime Minister's Office provides such administrative and secretarial support to the Trustees for the management and administration of the Trust, as may be required by the Trustees.
- **Any person appointed a Trustee shall act in a pro bono capacity.**
- **Contributions:** The fund consists entirely of voluntary contributions from individuals/organizations and does not get any budgetary support.
- Donations to PM CARES Fund would qualify for 80G benefits for 100% **exemption under the Income Tax Act, 1961**.
- Donations to PM CARES Fund will also qualify to be counted as **Corporate Social Responsibility (CSR) expenditure** under the Companies Act, 2013
- **Foreign donations:** PM CARES Fund has also got an exemption under the FCRA and a separate account for receiving foreign donations has been opened.
- This enables the PM CARES Fund to accept donations and contributions from individuals and organizations based in foreign countries.



What are the issues with PM CARES Fund?

- **Transparency:** Unlike other funds, such as of NDRF, the guidelines issued by the central government as per DM Act specifically provide for an audit of the NDRF by CAG, however, the PM CARES Fund is not subjected to similar scrutiny.
- It is opaque regarding the amount of money collected, names of donors, the expenditure of the fund so far, or names of beneficiaries. The PM CARES Fund's trust deed is not available for public scrutiny.
- **Accountability:** Critics allege that the PM CARES Fund is against the public interest as it is not answerable to Parliament even though it collects funds from the public.
- **Duplicacy:** Critics have also raised concerns about the potential redundancy and duplication of efforts with the PM CARES Fund, as India already has established disaster relief funds with similar objectives like the National Disaster Response Fund (NDRF) and the State Disaster Response Fund (SDRF).

- **Source of funds:** There is no transparency regarding the source of funds and allocation of funds.
- The decision to allow uncapped corporate donations to the fund to count as CSR expenditure — a facility not provided to PMNRF or the CM's Relief Funds — **goes against previous guidelines stating that CSR should not be used to fund government schemes.**

What are government arguments?

PM CARES Fund is **not a government fund** as donations to it **do not go to the Consolidated Fund of India** and no third-party information can be parted with irrespective of its status under the Constitution and the Right to Information (RTI) Act.

- PM CARES is not a “public authority” within the meaning of Section 2(h)(d) of the RTI Act and as such provisions of the Act cannot be made applicable on the trust.

Indian Diplomacy And The Horses Of Interest, Morality

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: International relations

Prepp Mains Booster: Ethical issues in international relations

India and its neighbourhood- relations, Effect of policies and politics of developed and developing countries on India's interests;

Context:

- Recently, Emine Dzhaparova, First Deputy Minister for Foreign Affairs, Ukraine, the First Deputy Minister for Foreign Affairs in the Ukrainian Government had claimed that **India's foreign policy contrasted between achieving its national interests and portraying itself as a Vishwaguru.**
- She stated that India, which had birthed numerous sages, saints and gurus was attempting to become the Global teacher or arbiter by adopting a path of morality.
- She claimed that Ukraine interpreted **Vishwaguru** as one who opposed the actions of aggressors against innocent victims.



What is the dichotomy in Indian foreign affairs?

- The views expressed by Emine Dzhaparova have also been expressed discreetly and privately by diplomats of other nations.
- All of them have claimed that there was a **wide variance between India's ambition to be recognised as a moral teacher and the cold pursuit of its interests.**
- The example of India not criticizing Russia's actions in Ukraine, which has been seen as morally reprehensible by most of Europe and the West, has been used to support this view.
- The statement by Emine Dzhaparova was intended to pressurize India to condemn Russia's actions, despite India having expressed its displeasure with Russia through the Prime Minister, who had claimed that this was not the era of war.

- India has been previously accused of contradicting its prescriptions for the international community and the actions it has adopted in its own strategy.
- **While India had severely criticized the US invasion of Vietnam and the Anglo-French invasion of Egypt in 1956 in order to retaliate against the nationalization of the Suez Canal by President Gamal Abdel Nasser, it has remained relatively silent on the Soviet action in Hungary, Czechoslovakia and Afghanistan.**
- However, Indian foreign affairs as part of the Vishwaguru Project was much different from the foreign affairs model based on contemporary World Order principles which were pursued earlier.
- The present model of foreign affairs was inspired by the **wisdom of Ancient India.** India has claimed that the global application of this wisdom would lead to the welfare of the planet.

Was India the only country with such a dichotomy?

- India was not the only country to pursue such a policy that pursued its interests while simultaneously criticizing others for not adhering to global principles.
- **The United States was the serial offender in this regard by siding with the most rural dictators in the world while at the same time advocating for the spread of democracy.**
- **The USA's and Europe's support for the apartheid regime in South Africa** for years was hypocritical and violated all norms of the world order.
- On the other hand, **India's opposition to the apartheid regime and support for the decolonisation process** was rooted in its historical experience and the ideals of its freedom movement.
- However, India did not attempt to cater to any national constituencies and refrained from the use of combative language.
- This is not the case any longer, as the Foreign Ministry under S.Jaishankar had forcefully highlighted the contradictions in the Western prescription to the rest of the world and its strategic actions with regard to its actions in Ukraine.

Challenges faced in implementing ancient wisdom

- Some writings by intellectuals associated with the Sangh Parivar have avoided the use of the term “Vishwa Guru” but have asserted that **Ancient Indian heritage contained the solution to the majority of the challenges** faced by the modern world.
- They have **stressed on India's traditions of spiritual democracy which celebrated its diversity, harmony with nature, pro-poor development policies, and the idea of Vasudhaiva Kutumbakam.**
- The value of these Indic traditions in preventing the various global challenges cannot be disputed, but two challenges existed.
 - Ancient Indian thought had not always conceived of the world in such a way and has mentioned the political idea of “Matsya Nyaya” in which a lawless world was dominated by the brave and powerful. However, this did not conform to democratic principles such as equality and universal adult franchise that were globally accepted today.
 - It was not clear how often the ancient Indic principles were applied as Indian history was full of episodes of political turbulence and violence.
- Another challenge that existed was whether the principle of spiritual democracy could be successfully applied to a social context.
- India's spiritual traditions were unique as they have been mostly free of dogmatic principles. However, the introduction of dogmatic principles in the present era could lead to these spiritual traditions losing out on their popular appeal.

Conclusion

- Emine Dzhaparova has rightly pointed out that it was extremely difficult to maintain the principles of morality as a Vishwaguru while simultaneously pursuing its national interests. India was not the only country to adopt such a divergent view and should not be forced to adopt the Western opinion about Ukraine because of it at the cost of its own national interests.

To know more about Indian Foreign Policy, click the [link](#).

PRELIMS

The EU'S New Crypto-Legislation

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: Markets in Crypto Assets (MiCA)**Prepp Mains Booster:** Effect of policies and politics of developed and developing countries on India's interests; Awareness in the fields of IT, Space, Mobilization of Resources**Context:**

- Recently, **the European Parliament, the legislative body of the 27-country European Union, has passed the world's first comprehensive set of legislation to bring mostly unregulated cryptocurrency marketplaces within the purview of government authorities.**
- After formal ratification by member states, the **Markets in Crypto Assets (MiCA)** legislation will go into effect.

What is MiCA?

- The new cryptocurrency regulation, **Markets in Crypto Assets, or MiCA**, represents a watershed moment for the EU's crypto industry.
- The introduction of this regulation is a big step forward for the crypto industry, as it marks a substantial attempt to give better clarity and transparency in the field.
- MiCA will provide a clear set of regulations and procedures for enterprises engaged in the crypto industry, including trading, custody, and marketing of crypto assets.

**Features:**

- MiCA's distinguishing aspect is its concentration on regulatory stablecoins, which are digital assets backed by fiat currency or other assets.
- The law imposes stringent compliance standards on stablecoin operators, which will assist to guarantee that these digital assets are stable and safe, and that they are not prone to fraudulent operations or money laundering.
- It mandates organizations who provide crypto-assets to publish a white paper that reveals information about the issuer, money raised, obligations, and technology underlying it. This will improve transparency in the industry and foster technical innovation.

What kind of assets will MiCA legislation cover?

- Crypto assets:** The MiCA legislation will apply to 'crypto assets,' which are defined broadly in the text as "a digital representation of a value or a right that uses cryptography for security and is in the form of a coin or a token or any other digital medium that may be transferred and stored electronically, using distributed ledger technology or similar technology." This definition indicates that it will apply to both classic cryptocurrencies such as Bitcoin and Ethereum as well as newer ones such as stablecoins.

- Stablecoins** are digital tokens that aspire to be tied in value to a more stable asset, such as a fiat currency like the US dollar or other stable cryptocurrencies. MiCA will establish new rules for three types of stablecoins:
 - Asset-referenced tokens**, which are linked to multiple currencies, commodities, or cryptocurrencies,
 - e-money Tokens**, which are linked to a single currency and
 - utility tokens**, which are intended to provide access to a good or service that will be supplied by the issuer of that token.

How is crypto regulated in India?

- India does not yet have a complete regulatory framework for crypto assets. A draft bill is apparently in the works.
- Aside from full-fledged regulation, the Indian government has taken moves to put cryptocurrencies within the purview of particular agencies and taxation.
- The Finance Ministry stated in the Union Budget for 2022 that cryptocurrency trading in India has experienced a "phenomenal increase" and imposed a 30% tax on profits from "transfer of any virtual digital asset."
- In March of this year, the government made all transactions involving virtual digital assets subject to the Prevention of Money Laundering Act (PMLA).
- India is now advocating for a global coordinated policy response on crypto assets that considers the whole spectrum of risks, including those peculiar to emerging markets and developing economies, in the G20 gathering, where it now holds the presidency.

How can India benefit from MiCA?

- MiCA can serve as an example of how a full framework could be built, as India is now establishing its own regulatory framework for cryptocurrencies.
- The MiCA's momentous step will undoubtedly improve investor trust in the crypto business in Europe and other areas of the world. This could potentially lead to increased investment in the crypto industry in India, with India planning its own version of MiCA.
- The emphasis on creating transparency in the crypto sector through the publication of white papers might aid in the prevention of fraud and money laundering in India's own crypto economy.
- This could contribute to the development of a more secure and safe cryptocurrency ecosystem in India. This might lead to greater adoption of cryptocurrencies in India, which has experienced a surge in interest in digital currencies in recent years.

What is a cryptocurrency?

- A **cryptocurrency** is a type of digital or virtual currency that uses encryption to protect it from counterfeiting or duplicate spending.
- Blockchain technology, a distributed ledger enforced by a dispersed network of computers, is the foundation of many cryptocurrency decentralized networks.
- The fact that cryptocurrencies are often not issued by any central authority makes them potentially impervious to intervention from or manipulation by governments.

What is the significance?

- The passage of MiCA is a significant accomplishment for Europe, as it makes the continent the first in the world to establish a full regulatory framework for the crypto industry.
- MiCA's new regulatory framework would also boost investor trust in the crypto economy by encouraging transparency, minimizing fraud, and combating money laundering.
- It would also lead to broader use of cryptocurrencies by businesses and individuals.
- The legislation will level the playing field for crypto enterprises and eliminate unfair competitive tactics, eventually encouraging a healthier and more sustainable crypto economy in the EU.

Conclusion

The adoption of MiCA is a huge step forward for crypto in Europe and sets a precedent for the rest of the globe. It is supposed to foster technical innovation and to make the crypto business more open and safe. This also demonstrates Europe's commitment to fostering innovation and growth in the crypto industry while maintaining its safety and security.

The Takeaways From The UN World Water Conference



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: UN water conference

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests, Conservation, environmental pollution and degradation, environmental impact assessment. Disaster and disaster management

Context:

- Recently, the **World Water Conference** which was convened in March saw governments, multilateral institutions, private corporations, and NGOs commit to tackling water security.
- India has committed to make investments worth \$240 billion in the water sector and to undertake activities to restore declining groundwater levels.

World Water Conference

- The **World Water Conference** was convened by the United Nations in New York in March 2023 and was the first such conference on freshwater in nearly 47 years.
- It deliberated on serious environmental challenges such as flooding, drought, climate change and the threat of a food crisis.
- The Conference also coincided with the mid-term review of the **Water Action Decade 2018-2028** whose goals were to advance the water security agenda by revitalizing existing programmes and inspiring action to achieve the 2030 SDG Agenda
- The first Water Conference held in 1977 was instrumental in the development of the **first Global Action Plan** that recognised the right of all people to access drinking of sufficient quantity and quality as their needs determined. This had led to significant global efforts to ensure water and sanitation security for the majority of the world, especially the developing world.



- Outcomes of the 2023 Conference: More than 670 commitments were made by 164 governments and 75 multilateral organisations as part of the Conference.
- Technology:** Innovation in waste water treatment including the use of solar power and collaborating with innovation platforms focussed on water sustainability such as the **IBM Sustainability Accelerator**.
- Data:** Cost-effective models of data generation including the use of sensors and satellite data and analysis using tools such as the **WMO's Hydrological Status and Outlook System**.
- Knowledge Sharing:** Accelerate cross-learning, collaboration and adoption of best practices. The **W12+ blueprint**, a UNESCO tool for water case studies using city profiles would be a useful tool to achieve this commitment.

- Capacity Building:** Empower people and organisations to participate in the democratic process and assert their rights. **Making Rights Real** and the **Water For Women Fund** were two initiatives that aimed at supporting marginalised women to exercise their rights and obtain suitable water sanitation and hygiene services respectively.
- Civil Society:** Collective action, lobbying, and transnational advocacy networks that would drive global water security initiatives such as the criminalisation of pesticides harmful to aquatic life.
- Environmental, Social and Corporate Governance:** Incentivize farmers to adopt eco-friendly practices and practice the effective use of water.
- However, the commitments were voluntary and legally non-binding. It was expected that the voluntary commitments would inspire the collective political will necessary to tackle water-related challenges.

Finance

- The Conference commitments must be assessed to ascertain whether they will lead to universal, safe, equitable and affordable access to water in a manner that is consistent with SDG 6.

SDG6

- Ensure availability and sustainable management of water and sanitation for all
- However, the successful attainment of these Goals by 2030 would require a capital investment of \$114 billion per year.
- According to estimates prepared by the World Bank, the recurring costs for the operation and maintenance of basic **Water and Sanitation and Hygiene (WASH) services** would rise from \$4 billion to \$30 billion by 2030.
- This amount was found to be in excess of the capital costs for establishing WASH facilities.
- The **World Resources Institute** has stated that the states have made rigorous and ambitious commitments but have failed in obtaining proper finance and setting quantifiable targets.
- This level of investment has necessitated the valuing of water using robust water measurement and accounting.
- However, there are numerous deficiencies in the available knowledge about the volume, flux and quality of water in freshwater sources.
- The available data on water usage was not entirely accurate. Efforts to implement the metering of water have been opposed by countries including India and Ireland because of access and affordability-related concerns.
- A World Bank study revealed that funding from regional, national and international sources prioritised new water infrastructure projects rather than maintenance projects which has resulted in decreased services for water customers.
- Water does not qualify as global public goods as it has not been deemed to be an area of urgent funding like climate change.
- The **Global Environment Facility or GEF** was the only international funding mechanism that has covered more than 300 watersheds and aquifers across two or more states through its grant and concessional loan system.

International mandates

- International law has mandated that nations possessed the authority to make voluntary commitments on global concerns.
- These commitments could be distinguished from other legal agreements because they were not made pursuant to a consensus instrument agreed upon by the parties. The commitments were generally independent of the commitments of other parties.
- Action taken to tackle climate change and promote environmental sustainability has led to voluntary commitments by states to curb greenhouse gases and adopt sustainable mechanisms even without a legally non-binding instrument.
- Voluntary climate change commitments have been made within a broader context of binding agreements such as the United Nations

Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement.

India

- At the Conference, India committed to:
 - Investments worth \$240 billion in the water sector
 - Efforts to restore groundwater level
- According to a **CAG report released in 2021, groundwater extraction in India had increased from 58% to 63% between 2004 and 2017**, which has since been further increased by intermittent rainfall due to climate change.
- The **Groundwater Bill, 2017** has empowered the State groundwater boards with the responsibility of creating laws, managing allocation and other water-related issues. However, the State boards suffered from understaffing, lack of expertise and socio-political conflicts.

Conclusion

- The 2023 Water Conference took place in the context of the United Nations Water Convention 1997 and the United Nations Economic Commission for Europe (UNECE) Water Convention 1992, two legally enforceable legal agreements on transboundary river water governance.
- **SDG6.5** emphasised the adoption of integrated water resources management (IWRM), which includes transboundary cooperation.
- Voluntary commitments have become an important component of environmental law, although they suffer accountability issues.
- However, monitoring the implementation and compliance of these agreements faced numerous challenges due to the diverse content and formats involved.

PM Modi Gets Into Bihu Mood After World Record Show

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Bihu

Prepp Mains Booster: Indian Heritage and Culture

Context:

- Recently, 11,304 dancers and musicians performed the traditional Assamese dance, Bihu, in Sarusajai Stadium and set two world records.
- The artists performed their show and achieved the world record for largest Bihu dance performance and largest performance by folk musicians.



Bihu Dance

- Bihu dance is a traditional folk-dance popular across Assam and especially performed during Bohag Bihu or Rongali Bihu.
- The first record was set for "the **largest Bihu performance at a single venue**" with 11,298 performers, including male drummers, gogona or jaw harp players, and pepa or buffalo hornpipe players, and female dancers wearing vibrant mekhela chadors.
- The second was for the largest **dhhol recital by 3,000 drummers** at the same venue.

Bihu

- The Assamese community in a year celebrates three Bihu festivals, each commemorating a different phase of the farming calendar.
- Now is the time for **Rongaali Bihu**, which usually falls in April and marks the **beginning of the Assamese New Year**.
- The most important Bihu for the community, it is also known as **Bohag Bihu**, and marks the **beginning of the planting season**. The festival, which begins on **April 14**, lasts for **seven days**.
- The other **two bihu's** are **Kati Bihu** and **Magh bihu**.
- **Kati Bihu or Kongaali Bihu**: It is celebrated in October and marks the **end of the sowing and transplantation of saplings** ('Kothia').
- **Magh Bihu or Bhogaali Bihu**: is celebrated in January/February and marks the **end of the harvesting season**.

Projects launched by the Prime Minister

PM Modi laid the foundation stones of projects worth ₹14,300 crore:

- The PM inaugurated the first All India Institute of Medical Sciences in the northeast at Changsari near Guwahati built.
- The other projects that were inaugurated are a medical college in Kokrajhar, Nagaon, and Nalbari, several railway projects and an ethanol plant at Namrup in eastern Assam.
- The Prime Minister launched the Aapke Dwar Ayushman campaign by distributing Ayushman Bharat Pradhan Mantri Jan Arogya Yojana cards to 1.1 crore beneficiaries.
- The PM laid foundation stones for the **Assam Advanced Healthcare Innovation Institute** within the Indian Institute of Technology, Guwahati complex, and the **Palasbari-Sualkuchi bridge** across the Brahmaputra to the west of Guwahati.
- Mr. Modi also addressed a programme marking the platinum jubilee celebrations of the Gauhati High Court.
- During the event, he launched the Assam Cop mobile application designed by the Assam police to narrow down searches from the database of the Crime and Criminal Network Tracking System and the VAHAN national register.
 - CCTNS is a Mission Mode Project under the National e-Governance Plan (NeGP) of Govt. of India.
 - CCTNS aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing through adopting of principle of e-Governance and creation of a nationwide networking infrastructure for evolution of IT-enabled-state-of-the-art tracking system around 'Investigation of crime and detection of criminals'.

Utsa Patnaik Wins Malcolm Adiseshiah Award 2023

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Current events of national and international importance.

Context:

- Recently, **Utsa Patnaik, a renowned economist with national and international acclaim, has been chosen for the Malcolm Adiseshiah Award 2023**.
- The Malcolm and Elizabeth Adiseshiah Trust bestows the coveted national prize to exceptional social scientists each year.

About Malcolm Adiseshiah Award

- The Malcolm and Elizabeth Adiseshiah Trust bestows the prize yearly to an exceptional social scientist chosen from nominations by a specially formed national panel.
- The award consists of a citation and a cash prize of Rs. 2 lakh.

Malcolm Satyanathan Adiseshiah

- **Malcolm Satyanathan Adiseshiah** (1910-1994) was an Indian development economist and educator.
- Adiseshiah was born on April 18, 1910, in Vellore, Southern India.

- Adishesiah worked as the Associate General Secretary of the World University Service in Geneva from 1946 until 1948.
- This organization eventually assisted him in raising funds for the World University Service Centre in Chennai, as well as women's dormitories in Delhi and Rajasthan.
- He was appointed as UNESCO's Deputy Director of the Department of Person Exchange.
- He received the Padma Bhushan in 1976.
- In 1998, UNESCO established 'The Malcolm Adishesiah International Literacy Prize' in honour of his contributions to education and literacy.
- He was elected to the Rajya Sabha in 1978.



India-U.S. Air Exercise 'Cope India' To Begin Next Week, Japan To Be Observer

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Cope India Exercise

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

Context:

- The Air Forces of India and the U.S. conducted the Cope India exercise from April 10 to 21 at the Kalaikunda airbase in West Bengal, with Japan as an observer.
- The Exercise is being held after a gap of four years since it had been postponed due to the Covid-19 pandemic. The last edition was held in 2019.

About Cope India Exercise

- In December 2018, the Japanese Air Self-Defence Force (JASDF) participated in the Cope India exercise as an observer for the first time,

following an agreement made during the Defense Ministerial Meeting on August 20, 2018, the United States proposed a trilateral air exercise involving all three countries.

- As a result, Japan was initially included in the **exercise as an observer**, with the aim of gradually elevating its involvement to the **trilateral level over time**.
- The Malabar naval exercise, originally started as a bilateral exercise between India and the United States, later became a **trilateral exercise with the addition of Japan in 2015**.
- In 2020, the exercise was expanded to include all Quad partners with the addition of Australia.
- Originally named the Quadrilateral Security Dialogue (QSD), QUAD or Quad is a strategic security dialogue between Australia, India, Japan, and the United States.
- The dialogue was conceptualised in 2007 by former Japanese Prime Minister Shinzo Abe. However, it gained importance in the recent past with the emergence of Indo-Pacific as the Centerstage of Global politics.
- In January 2023, India and Japan conducted their first-ever air exercise called **Veer Guardian**, which was hosted by the **Japanese Air Self-Defence Force (JASDF)**.



Other military exercises with Japan

- **Malabar exercise:** India and Japan, along with the United States and Australia participate in the naval exercise named Malabar. It is a multilateral naval exercise that was started in 1992. It began as a bilateral exercise between the navies of India and the United States.
- **Dharma Guardian** - Bilateral exercise between Armies
- **Japan-India Maritime Exercise (JIMEX)** - It is conducted biennially between the Indian Navy and the Japanese Maritime Self-Defense Force (JMSDF).
- **Shinyuu Maitri** - It is a Japanese Air Self-Defense Force (JASDF) and Indian Air Force bilateral air exercise.

Significance of these exercises

- The Indian Air Force (IAF) has participated in four international exercises since the beginning of this year.
- The purpose of these exercises is to engage with other **air forces and gain knowledge** about the latest tactics and operational use of air power.
- Additionally, these exercises have facilitated building **interoperability and strengthening cooperation**.
- During these exercises, the IAF has also demonstrated its ability to operate across continents by collaborating with friendly countries' air-to-air refueling capabilities and establishing common technical support equipment.

Army May Build Bailey Bridges In Kaziranga To Protect Rhino's Domain

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Environment

Prepp Mains Booster: Environment**Context:**

- Recently, the Army has received requests for the construction of Bailey bridges in the Kaziranga National Park and Tiger Reserve to allow for faster movement of forest guards in crucial, vulnerable regions of the one-horned rhino domain.
- These bridges will reduce approaches to susceptible regions and improve coordination among forest guards stationed at anti-poaching camps, especially during the monsoon season.

About Kaziranga National Park

- Kaziranga National Park is a national park in the districts of Golaghat and Nagaon in the Indian state of Assam.
- It is a UNESCO World Heritage Site (1985) and the sanctuary hosts two-thirds of the world's great one-horned rhinoceroses.
- Rhinos are listed as vulnerable on the IUCN Red list of Threatened Species.
- Tigers: Kaziranga is home to the highest density of tigers among protected areas in the world, and was declared a Tiger Reserve in 2006
- Fauna:** The park is home to large breeding populations of elephants, wild water buffalo, and swamp deer.
- Important Bird Area:** Kaziranga is recognized as an Important Bird Area by BirdLife International for conservation of avifaunal species.
- National Highway 37 passes through the parking area.

**Why are the bridges required?**

- The proposed Bailey bridges would effectively replace wooden structures in flood-prone susceptible sections of the 889.51-square-kilometer park, which is also a U.N. World Heritage Site.
- The bridges are needed for greater connection in largely remote places where wooden structures are frequently swept away during the monsoon season.
- The bridges are anticipated to reduce approaches to susceptible spots and improve cooperation among forest rangers stationed in anti-poaching camps.
- There are a total of 223 anti-poaching camps in Kaziranga. During the floods, many of them get flooded.
- The park is home to an estimated 2,613 rhinos, according to the 2022 count. In addition, Kaziranga has the greatest tiger density in India.

Difference between Wildlife Sanctuary and National Park

Wildlife Sanctuary	National Park
Human Activities are allowed.	No Human activities are allowed.
The main aim is to protect a particular flora or fauna.	Can include flora, fauna or any other objects of historical and geographic significance.

There are no fixed boundaries.	Boundaries are fixed and defined.
It is open to the general public.	Not usually open to the public.
A sanctuary can be upgraded to a national park.	A National Park cannot be downgraded to a sanctuary.
Wildlife sanctuaries can be privately or publicly owned.	National parks are typically owned by the government.
Ex: Periyar Wildlife Sanctuary, Bandipur Wildlife Sanctuary, Dibang Wildlife Sanctuary	Ex: Corbett National Park, Nagarhole National Park, Bandhavgarh National Park, Ranthambore National Park.

Why The Zojila Tunnel Promises To Revolutionize Connectivity To Ladakh**Priority: Medium****Primary Source:** Indian Express**Prepp Prelims Booster:** Zojila Tunnel**Prepp Mains Booster:** Infrastructure**Context:**

- Recently, the Union Road Transport and Highways Minister Nitin Gadkari inspected the under-construction Zojila tunnel.
- The tunnel will establish **all-weather connectivity** between the Union Territories of Ladakh and Jammu and Kashmir.
- Gadkari visited the project site along with J&K Lieutenant Governor Manoj Sinha and members of the Parliamentary Consultative Committee on Road Transport and Highways.

What is the Zojila tunnel?

- It is a 7.57 m high horseshoe-shaped single-tube, 2-lane tunnel, which will pass under the Zojila Pass in the Himalayas between Ganderbal in Kashmir and Drass town in Kargil district of Ladakh.
- The project includes a Smart Tunnel (SCADA) system, which has been constructed using the New Austrian Tunneling Method.
- The Zojila tunnel will be India's longest road tunnel and is expected to be Asia's longest bi-directional tunnel, boasting a length of 14.15 km.
- A connecting tunnel from **Z-Morh** on NH1 to the Zojila tunnel will be built in the Zojila Ghats between Sonmarg and Kargil.
- This involves the development and expansion of the 18.475-km highway between Z-Morh to Zojila.
- A 3-km stretch will be expanded; the rest will be newly developed. The highway will have two twin-tube tunnels, five bridges, and two snow galleries.
- The work on the entire 33-km span is spread between two union territories – Jammu and Kashmir; and Ladakh.
- Currently, the average travel time to cross the Zojila Pass sometimes takes three hours, after the completion of this tunnel the travel time will come down to 20 minutes. The reduction in travel time will ultimately result in fuel savings.

Necessity

- Reduce time and distance:** At present, the commute between Srinagar and Leh, the largest city in Ladakh, takes over **10 hours** on a good day and passes through extremely inhospitable terrain.
- However, **this route is closed in winter** due to concerns of avalanches, landslides, and slippery roads, leaving areas **inaccessible to the rest of the country for at least five months**.
- With the Zojila pass shut, air connectivity is the only option, and **airfares can skyrocket** over Rs 40,000 during peak winter months.
- Safety:** The terrain near Zojila Pass is **extremely inhospitable**, with many fatal accidents reported each year. Once the tunnel project is **completed**, chances of **accidents are expected to come down significantly**.
- All weather connectivity:** The upcoming Zojila tunnel would **provide connectivity around the year** between Ladakh and the rest of the country.

- This would be important as it would benefit not just civilians living in the region, but also the military, by expediting the **movement of troops and supplies** in this vitally important **strategic region**.
- The distance from Baltal to Minamarg would come down to 13 km from 40 km and the travel time is expected to be cut by an hour and a half.
- The opening of the tunnel will help in increasing tourism and employment opportunities.

Zojila Pass

- Zojila Pass is located on the Greater Himalayan Range and acts as a gateway between the Union Territories of Ladakh, and Jammu & Kashmir.
- The Zojila pass on the Srinagar-Leh route is situated at an altitude of 11,587 feet on the Srinagar-Kargil-Leh national highway.
- Due to heavy snowfall during the winter, the highway remains closed from December to April, thereby making air the only mode of connectivity.

Breach Of Privilege Investigation Against BJP MP Sudhanshu Trivedi



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Breach of Privilege

Prepp Mains Booster: Parliament and State legislatures—structure, functioning, the conduct of business, powers & privileges and issues arising out of these.

Context:

- Recently, the Chairman of the Rajya Sabha, Jagdeep Dhankhar, has referred a complaint of "breach of privilege" against Sudhanshu Trivedi, a Member of Parliament from the Bharatiya Janata Party.
- The complaint was made due to Mr. Trivedi's alleged "disrespectful" remarks towards the Chairman and his impartiality towards Jairam Ramesh, the Congress chief whip in the Upper House.
- The complaint has been referred to a committee for further investigation.

What is a Breach of privilege?

- Breach of privilege means the violation of **any of the privileges of MPs/Parliament**.
- When any individual or authority disregards or attacks any of the privileges, **rights, and immunities**, either of the members individually or of the House in its collective capacity.
- In India, the privileges are derived from the Constitution, which has equivalent provisions in this regard in the **form of Articles 105 and 194**, which grant these privileges to members of the Parliament and state legislatures, respectively.

What Is The Breach Of Privilege?

- Breach of privilege refers to some of the unique rights that legislators in a parliament or assembly have that they do not have in any other institution or group of people.
- These **rights are unique to legislators** and are not shared by members of any other institution or group of people.
- A breach of privilege occurs when one of the MPs' or Parliament's privileges is violated. Any activity that 'casts reflections' on MPs, parliament, or its committees, for example, could be considered a breach of privilege.
- **Neither** the Parliament nor any State legislature has enacted legislation that **defines the powers, privileges and immunities of the Houses**, or that of its members and committees.
- These immunities are presently governed by **precedents by British parliamentary conventions**.



The following are some examples of breach of privilege

- Speeches or publications in which the House, its Committees, or its members are discussed;
- **Reflections on the Speaker's character and impartiality in performing his duties;**
- **Publication of a fictitious** or distorted record of House proceedings; Publication of House proceedings that have been erased;
- Premature release of a legislative committee's procedures, evidence, or report; publication of the proceedings of secret sessions in the house.

Provisions Governing Privilege

- The **Constitution (Article 105)** includes two privileges: **freedom of expression** in Parliament and the right to publish its proceedings.
- **Privilege is governed by Rule No. 222** in Chapter 20 of the Lok Sabha Rule Book and Rule 187 in Chapter 16 of the Rajya Sabha Rule Book.
- A member may bring a question regarding a breach of privilege by a member or the House with the agreement of the Speaker or the Chairperson.
- The regulations require that any notice be related to a recent incident that requires the involvement of the House.

Process to raise a question of privilege

- **Parliament** is the **sole authority** to ascertain if there has been a breach of privilege or contempt of the **House no court is entrusted with this power**.
- **A member** of the House can raise a question involving a breach of privilege with the **consent of the Chairman or Speaker**.
- If the presiding officer gives consent, the Council can either consider the question and come to a decision or refer it to the Committee of Privileges — a 10-member panel in the Rajya Sabha and a 15-member panel in the Lok Sabha.
- The Chairman is also empowered to **refer, suo motu**, any question of privilege to the Committee for examination, investigation and report.
- According to the Rajya Sabha rule book the Chairman **can also himself inquire into a breach of privilege** matter instead of referring it to the Committee and apprise the House of the result of his inquiry and close the matter.
- Not more than one question is allowed to be raised at the same sitting, the rules state, adding that the "question shall be restricted to a specific matter of recent occurrence."

Privilege Committee

- In the Lok Sabha, the Speaker appoints a **privileges committee of 15 members** according to the respective party strengths.
- The House is then given a report for its consideration.
- While considering the report, the Speaker may allow a half-hour debate.
- The **Speaker** may then **issue final instructions or request** that the report be tabled in the House.
- A resolution pertaining to the breach of privilege may then be moved, which must be carried unanimously.

- The vice chairman of the Rajya Sabha chairs the privileges committee, which has ten members.

Punishment for breach of privileges

- The authority to decide the punishment lies with the House.
- A person who is found guilty of breach of privileges or contempt can be **reprimanded, warned, or imprisoned**.
- The period for which the House can commit an offender to custody or prison for contempt is limited to the duration of the session of the House.
- In case its member is found guilty, the MP can be **suspended from the House or face expulsion**.
- One of the most significant cases of breach of privilege was seen in 1978 against **Indira Gandhi**.
- The privileges committee of the Lok Sabha found the former PM guilty of contempt and breach of privilege after a notice accused her of harassing government officials.
- She was expelled from Parliament and sent to jail. The resolution was, however, rescinded in 1981.

Conclusion

- The House's penal powers for violation of privilege or contempt of the House, on the other hand, are only used in severe cases where a deliberate attempt is made to defame the institution of Parliament and destroy public trust in and support for it.
- It is deemed desirable that the parliamentary investigation process not be used in a way that elevates irresponsible or reckless utterances, or statements made by people of no consequence.
- It has also been decided that the legislation of Parliamentary Privileges should not be applied in a way that restricts or discourages the free expression of opinion or criticism, no matter how prejudiced or excessive it may be.

India Climbs 6 Places On World Bank's Logistic Performance Index



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: World Bank's Logistics Performance Index

Prepp Mains Booster: Important International institutions, agencies and fora- their structure, mandate, Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Context:

- Recently, India rose to the 38th rank on the World Bank's Logistics Performance Index 2023 as a result of investments in soft and hard infrastructure and the technology sectors.
- India's National Logistic Policy was launched in 2022 by the Prime Minister with the aim of ensuring faster last-mile delivery and cheaper and time-effective transport for the manufacturing industry.



What is the Logistics Performance Index?

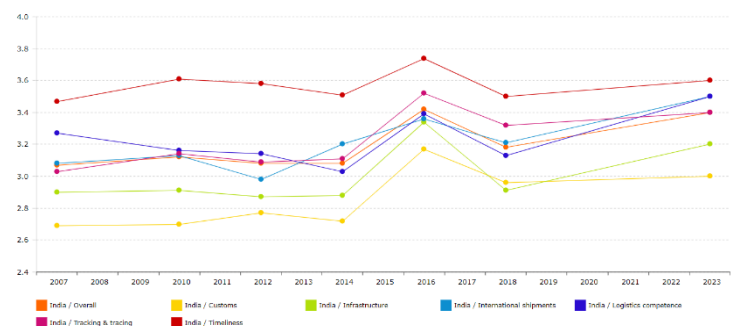
- The **Logistics Performance Index (LPI)** was an interactive benchmarking tool that has been developed by the **World Bank** to assess opportunities and challenges faced in trade and logistics.
- It also measures the ease of establishing supply chains and the structural factors related to it like border control, quality of logistics, and trade and transit infrastructure.
- It also makes suggestions to improve the performance of various countries in logistics.
- The index measures Logistics performance across six parameters:
 - **Customs performance**
 - **Infrastructure quality**
 - **Ease of arranging shipments**
 - **Logistics services quality**
 - **Tracking and tracing of shipments**
 - **Shipment timelines**
- The index was introduced by the World Bank in 2010 and was published every two years. However, it was delayed in 2020 on account of the pandemic and was published in 2023 following changes in the procedure of the Index.
- **LPI 2023 has measured 139 countries** and has used shipment tracking datasets to measure the speed of trade.

Logistics

- When resources like people, raw materials, inventories, equipment, etc. are moved from production points to consumption, distribution, or other production points, the process is referred to as **logistics**.
- Logistics outlines the entire process involved in acquiring, storing, and delivering resources.

How has India performed?

- In the **2023 edition of the LPI, India was ranked 38th** out of the 139 countries which were assessed.
- India's performance had improved from previous editions in which it was **ranked 44th in 2018 and 54th in 2014**.
- According to the report,
 - **Infrastructure:** India's rank rose five places from 52nd in 2018 to 47th in 2023.
 - **International shipments:** India's rank improved from 44th in 2018 to 22nd in 2023.
 - **Logistics competence and equality:** India's position improved by 4 places from 48th to 44th.
 - **Shipping timelines:** India's ranking rose by 17 places to the 35th position.
 - **Tracking and tracing:** India's rank fell from 38th rank to 41st in 2023.
 - **Customs:** India's performance dropped from the 40th position in 2018 to 47th in 2023.



To know more about the [Indian Logistics sector](#), click the link.

What are the reasons behind India's improvements?

- The report has cited the improvements in **modernisation and digitalisation as the reason behind developing economies like India performing better** than some developed nations.
- Since 2015, the Union Government has invested in trade-related hard and soft infrastructure connecting port gateways on both coasts to economic hubs in the country's hinterland.

- The government has implemented technological reform such as a **supply chain visibility platform through a public-private partnership which has helped reduce delays**, contributing to improvement on parameters such as timelines and international shipments.
- The report mentioned that the **NICDC Logistics Data Services applied RFID tags to containers and offered consignees end-to-end tracking of the supply chain**. This was an example of how performance improved on the tracking and tracing parameter.
- The report has claimed that during March-October 2022, the average **dwelt time for containers between India and Singapore was three days while advanced nations such as the U.S.A and Germany took seven and ten days** respectively.
- The emerging economies were found to have applied modern technological solutions to further improve dwell times and tracking of consignments.
- According to the report, dwell times at the Vishakapatnam Port had fallen from 32.4 days in 2015 to 5.3 days in 2019 as a result of the introduction of cargo tracking technology.
- The Report has mentioned that the Government's policy interventions have played a major role in the country's improved performance.
- The **PM Gati Shakti initiative** was launched in October 2021 as a National Master Plan for multimodal connectivity. It has aimed at reducing the costs involved with the logistics sector and thus boosting the economy by 2024-25. Projections suggested that around ₹10 lakh crore per annum could be saved by improving logistics efficiency.
- The **National Logistics Policy** was introduced in 2022 and was aimed at solving transport-related challenges, ensuring speedier last-mile delivery, efficient transport and saving time and costs of logistics borne by the manufacturing sector.

Other findings

- **End-to-end digitisation by developing economies had allowed them to shorten port delays by almost 70%** in comparison to the more developed nations.
- The report also found that there was a **rising demand for green logistics, with 75% of shippers preferring pro-environment options**, especially when shipping consignments to advanced economies.
- The biggest delays were found to occur at seaports, airports and other multimodal facilities. The Report has recommended that the adoption of policies targeting these factors could lead to an improvement in their logistics performance.

G7 Ministers Commit To Move To Carbon-Free Power By 2035



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: G7

Prepp Mains Booster: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests. ;GS3 - Environment

Context:

- Recently, Climate and Energy Ministers and envoys from the Group of Seven (G7) countries committed to working towards ensuring carbon-free electricity production by 2035 and "accelerating" the phase-out of coal.
- This was part of an agreement by the countries at the end of a two-day conference in Sapporo, Japan, ahead of the G7 summit in Hiroshima this May.
- The G7 is an informal grouping of seven of the world's advanced economies, including Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States, as well as the European Union.



Carbon-Free Power By 2035

- **Acceleration of renewable energy:** The countries agreed to **accelerate solar and wind energy investments** to produce 1,000 gigawatts (GW) by 2030 from solar power and 150 GW of wind power from off-shore platforms.
- This move is in line with recent reports by the Intergovernmental Panel on Climate Change (IPCC) (to ensure that global temperatures do not increase by more than 1.5°C of pre-industrial levels by the end of the century).
- **Elimination of subsidies:** The countries reaffirmed their commitment to the **elimination of inefficient fossil fuel subsidies by 2025**. As phasing out inefficient fossil fuel subsidies is a key component of delivering on the Paris Agreement.
- **Removal of government support towards fossil-fuel-driven power:** The countries emphasized that, with the exception of a few clearly defined circumstances that are consistent with a 1.5°C warming limit and the goals of the Paris Agreement, they have **stopped all new direct government support for unabated international thermal coal power generation by the end of 2021** and public support for the international unabated fossil fuel energy sector in 2022.
- The group will each provide an update on their approach to implementation by the end of 2023.
- The ministers have agreed to prioritize steps toward **phasing out "unabated" coal power generation — plants** that do not employ mechanisms to capture emissions and prevent them from escaping into the atmosphere.
- The G7 countries have endorsed Japan's national strategy that emphasizes clean coal, hydrogen, and nuclear energy to ensure its energy security. The leaders have reaffirmed their commitment to accelerating the transition to clean energy and achieving net-zero greenhouse gas emissions by 2050.
- The leaders emphasized the need to urgently reduce carbon emissions and achieve a **"predominantly decarbonized power sector"** by 2035.

Challenges

- **Long Period:** The stipulation that countries rely on clean "predominantly" energy by 2035 does not guarantee the complete removal of fossil-fuel-fired power, which will consistently add pollution to the atmosphere.
- **Continued reliance on coal:** According to Reuters, **a plan to phase out coal by 2030 was rejected**, and the final document permits **further investment in gas on the grounds** that it might serve as a stopgap measure in the event of an energy shortage.
- **Energy Transition for Japan:** It will be challenging for Japan which is predominantly reliant on fossil fuels like coal for almost 1/3rd of its energy needs.
- Japan is promoting the use of "clean coal" technology, which captures carbon emissions and uses it to produce hydrogen, a fuel that produces only water when used.

- **Shifting of source of carbon emission from developed countries to developing countries:** Emissions in advanced economies are falling, though historically they have been higher.
- The United States alone accounts for about a quarter of historic global carbon emissions while emerging markets and developing economies now account for more than two-thirds of global carbon emissions.

Solutions

- **Funding:** The Sultan Al Jaber president-designate for the next United Nations climate talks, the COP28, urged G7 **nations to increase financial support for developing countries' transitions to clean energy.**
- He said developed countries must follow through on a \$100 billion pledge they made at the 2009 COP15 meeting. The next talks are to be held in Dubai in late November.
- Chinese President Xi Jinping and Brazilian President Luiz Inácio Lula da Silva issued a joint statement stating that the funding provided by developed countries continues to **fall short of the commitment** of \$100 billion per year."
- **Providing assistance:** India participated in the summit as a 'guest', in the context of its presidency of the G-20.
- Environment Minister Bhupendra Yadav emphasized the importance of developed countries **providing finance, technology, and assistance to developing countries to transition away from fossil fuels.**
- The minister also stressed that efforts to reach carbon neutrality and increased ambition must prioritize principles of equity and climate justice.

Way forward

- The G7 nations account for 40% of the world's economic activity and a quarter of global carbon emissions and play a crucial role in addressing the climate crisis.
- However, they must also support developing nations, which often suffer the most severe impacts of climate change and have limited resources to address them.

PRET: WHO Launches Initiative To Make World Better Prepared For Future Pandemics

Priority: **Medium**



Primary Source: Down to Earth

Prepp Prelims Booster: Health

Prepp Mains Booster: Important International institutions, agencies and fora- their structure, mandate, GS3 - Science and Technology- developments and their applications and effects in everyday life

Context:

- Recently, the WHO has launched the Preparedness and Resilience for Emerging Threats Initiative (PRET) to ensure the world is prepared for future outbreaks like the Covid-19 pandemic.
- The Initiative is aimed at preparing countries for responding to respiratory pathogens like coronaviruses and operationalizing the objectives and provisions of the Pandemic Accord.

What is the PRET initiative?

- The **Preparedness and Resilience for Emerging Threats (PRET) Initiative** has been launched by the **World Health Organisation** to be better prepared for future disease outbreaks similar to the Covid-19 pandemic.
- The PRET Initiative is aimed at providing guidance to countries on the integrated planning required for responding to respiratory pathogens such as coronaviruses and influenza.
- It was announced at the Global Meeting for Future Respiratory Pathogen Pandemics that was held from 24th to 26th April 2023 in Geneva, Switzerland.

- The **Initiative aims to help countries ensure better management of their response to pandemics and their recovery by supporting the strengthening of systems and capacities.**



- The PRET initiative has emphasized coherency and efficiency over the isolated or siloed approach that had been adopted by countries prior to the Covid-19 pandemic.
- PRET has identified three levels of systems and capacities for pandemic preparedness.
 - **Multi-hazard or cross-cutting all sectors**
 - **Relevant to groups of pathogens like respiratory viruses**
 - **Pathogen-specific**
- PRET's three-pronged approach includes updated preparedness plans which affirm priority actions, and improve connectivity among stakeholders in pandemic preparedness planning through systematic coordination.
- The initiative will also focus on sustained investments, financing, and the monitoring of pandemic preparedness that **focuses on bridging the lacunae that were exposed during the Covid pandemic.**
- The initiative whose monitoring framework is expected to be released in detail soon lists actions that countries were expected to act on and achieve progress by December 2025.
- The **current focus of PRET will be on respiratory viruses** due to the Covid pandemic and the threat of an outbreak of the avian influenza virus.
- However, work was already underway to assess the set of pathogens to be mitigated in the next phase of the Initiative.
- PRET is based on the **one health approach** that recognizes that emerging pathogens were most likely to originate in animals and thus required multi-sectoral action to prevent, prepare and respond to these threats.
- The PRET approach also aims to achieve technical efficiency in order to accommodate the evolving landscape of governance, financing, and other systems.

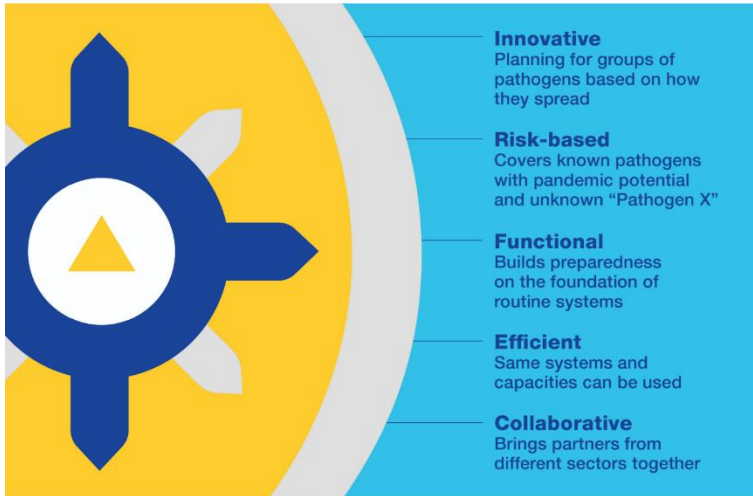
What has the WHO said about the initiative?

- According to the Director-General of the WHO, Tedros Adhanom Ghebreyesus, **preparedness, prevention, and response activities should not be restricted to the health sector alone.**
- Preparedness and response efforts to health crises should span sectors, disciplines, and pathogens in response to how health emergencies impacted numerous sectors.
- Community engagement and equity should be the critical aspects of efforts, especially relating to marginalized and vulnerable communities.
- The WHO has also stated that the Initiative ushers in a new era of pandemic preparedness and were representative of the evolution of the WHO's core activities to support members in strengthening

preparedness, prevention, and response capacities related to health emergencies.

- PRET could also assist in operationalizing the aims and provisions of the **Pandemic Accord** which is currently being negotiated by the member states of the WHO.
- The Working Group of the WHO was also working on amendments to the International Health Regulations related to compliance, implementation, and public health responses.

The Preparedness and Resilience to Emerging Threats (PRET) initiative helps countries prepare for disease pandemics by being:



World Health Organization



World Health Organization

- The World Health Organization (WHO) is the United Nation's specialized body for health.
- The WHO was established in 1948 and has its headquarters located in Geneva.
- The WHO works with the Ministries of Health of member nations and provides leadership on issues of global health, directs global health research, sets standards and norms in the sector, monitors health trends, and provides technical support to countries as necessary.
- **Objectives:**
 - To act as the primary coordinating international authority on health work
 - To maintain effective collaboration with the UN, specialized agencies, governments, and other organizations
 - To assist governments in strengthening health services
 - To promote cooperation among scientific and technical groups in order to contribute to the advancement of human health.
- **Members:** The WHO has 194 member states including India who joined in 1948.
- **Structure:**

- **World Health Assembly:** It is the decision-making body of the WHO attended by all members and is conducted annually in Geneva. It supervises the financial and other policies of the WHO.
- **Executive Board:** It implements all decisions taken by the Assembly
- **Secretariat:** It is composed of the Director-General and other technical and administrative staff as deemed appropriate.
- **Director-General:** He is the Chief Executive of the WHO and principal adviser to the UN on health issues. The Director-General is elected by the Assembly and serves as the ex-officio Secretary of the Assembly, Executive Board, and all other conventions and commissions convened by the WHO
- **Reports published:**
 - World Health Report
 - Global Nutrition Report
 - World Vision Report
 - Ambient Air Pollution Report
 - World Report on Hearing

Bluwashing: Report Flags How Corporates Have Wormed Their Way Into Global Food Governance

Priority: **Medium**



Primary Source: Down to Earth

Prepp Prelims Booster: Blue washing

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

Context:

- Recently, a report released by the International Panel of Experts on Sustainable Food Systems highlighted the growing presence of corporate firms in global food governance.
- Partnerships between corporates and intergovernmental bodies like the UN creates conflicts of interest and allows the corporates to blue-wash or social-wash their reputations.
- **Blue-washing** refers to a deceptive form of marketing in which an enterprise uses deceptive marketing techniques to overstate its commitment to responsible social practices. Here, food security and nutrition were the public services that have been blue-washed.

What does the report by IPES say?

- The **International Panel of Experts on Sustainable Food Systems** has released a report titled "Who's tipping the scales".
- The report has highlighted the visible manner in which corporate takeover of food governance systems is taking place.
- There has been an increase in the number of firms claiming to be legitimate actors through public-private partnerships and multi-stakeholder organizations.
- The report noted that the **involvement of private corporations in food-governance systems helps them justify their involvement by redefining public interest in ways that benefit private sector entities and businesses** more than people and the environment.
- The Covid-19 pandemic, the Russian invasion of Ukraine, food inflation, and the subsequent shortage of funds faced by governments and multilateral agencies have resulted in increased corporate involvement in the sector.
- According to the report, corporations have succeeded in convincing governments of their central role in any discussions on the future of the food system.
- The role of private corporations in food governance and decision-making has been normalized by public-private partnerships and multi-stakeholder roundtables while public governance initiatives have become heavily dependent on private funding.
- The **UN Food Systems Summit, 2021** was described as a watershed moment in highlighting the importance of corporate influence in public health governance.

- The UNFSS leadership's approval of corporate participation in food systems has permitted agribusiness firms to assert that they had a critical role to play in public interest-based decision-making.
- Civil society organizations, food scholars, and social movements have expressed concern that the **increased involvement of corporates in food governance could lead to a weakening of the public good, and impact the rights of people and communities.**
- Corporations have influenced global food governance in visible and invisible ways.
- Corporate influence could be seen in global food systems platforms such as the **Global Alliance for Improved Nutrition, the Food and Land Use Coalition, and the Scaling Up Nutrition Movement.**
- Other less visible ways in which corporate influence was seen in food systems governance was how the private sector enterprises provided political and institutional donations, shaped trading, investment rules and research strategies, and other structural aspects of global food systems.
- Corporate partnerships provided a key source of funding for global food governance institutions and corporations with greater influence over decision-making.



Examples of corporate involvement

- The IPES Report has mentioned the **Consultative Group on International Agricultural Research (CGIAR)** which was a global research partnership of international institutions related to food security.
- The Report noted that CGIAR relied on funding from private firms and private philanthropic institutions connected to the food industry.
- The **Bill and Melinda Gates Foundation** which was the CGIAR's second largest donor in 2020 contributed around \$100 million, which was far more than what was contributed by individual governments including that of the USA.
- The **Food and Agriculture Organization** of the UN was also found to have closely collaborated with corporates through industry partnerships throughout its history. However, the details regarding these contributions were not readily available.
- The FAO had partnered with **CropLife**, a pesticide lobby organization whose members included large agribusiness firms. Critics pointed out this was an example of the corporate influence on the functioning of the FAO.

What are the Report's recommendations?

- According to the IPES report, **partnerships between corporates and intergovernmental institutions like the UN allowed firms to blue-wash or social-wash their reputations.**
- Critics of increased corporate participation in food systems have alleged that these **partnerships would lead to conflicts of interest in food governance.**

- The report has also provided potential solutions for the challenges faced by the food governance systems.
- Experts have recommended that clear mechanisms be developed to monitor, assess and manage the conflicts of interest in food system governance.
- Existing policies were limited and should be amended to include **stricter rules on lobbying, spending, and campaign financing which were intended to influence government policy or elections to food governance institutions.**
- The Report also recommended that stakeholders who worked with those who were most affected by hunger and malnutrition should have a greater influence in identifying food-related issues, determining the agenda and participation of these institutions, and developing governance mechanisms and structures.

ADB pares India's growth hopes to 6.4%

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: ADB

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

Context:

- Recently, the Asian Development Bank (ADB)'s Asian Development Outlook has slashed its growth projection for India for 2023-24 sharply from 7.2% estimated earlier to 6.4%.

What does the report say?

- The Asian Development Bank's Asian Development Outlook report stated lower than the earlier estimate, **due to global economic slowdown, tight monetary conditions, and high oil prices.**
- The report also forecasts real GDP growth to be 6.8% for the fiscal year 2022-23 and 6.7% for the fiscal year 2024-25.
- According to the bank the domestic consumption demand is expected to remain healthy, while the private investment growth is likely to be lower due to **high lending rates and moderating optimism on business conditions.**
- The report stated that the **ongoing recovery in China and healthy domestic demand in India** will be the **main growth support pillars** for the entire region through this year and next.



India's contribution to GDP growth in Developing Asia

- According to the ADB, between 2015 and 2019, India's contribution to GDP growth in Developing Asia was 22% while China's contribution was 53%.
- It also stated that the People's Republic of China still accounts for about half of the region's growth, but its contribution will decline in future from 51% this year to 46% by 2024-25 while India's contribution to developing Asia's growth is expected to rise to 27% by 2024-25 from an estimated 25% in 2023-24.

- The outlook predicted that this rapid growth [for India] reflects healthy domestic consumption, which will be further boosted by the tax cuts and exemptions in February's Union Budget.
- India will be **less affected by the slowdown in advanced economies** because of limited role of exports in the economy.
- According to the report **South Asia would remain the best-performing sub-region** this year, driven by robust growth in India which should register high growth both this year and next year
- However it forecasted growth to slow in Pakistan and a contraction in Sri Lanka.
- According to the report inflation is expected to decline as global price pressures moderate.
- The bank stressed on Improving states' financial management in order to increase needed public investment.
- It further added that growth will be buoyed again in 2024-25 "by private consumption and investment as the global economy improves".

Asian Development Bank

- The Asian Development Bank (ADB) was founded in 1966 and is headquartered in **Manila (Philippines)**.
- It has 67 members from Asia and the Pacific.
- **Japan** owns 15.677% of ADB, followed by the United States (15.567%), China (6.473%), and India (6.473%).
- The Asian Development Bank invests in infrastructure, health, and public administration, assisting countries in mitigating the effects of climate change and managing natural resources.
- The Asian Development Bank (ADB) publishes an **annual report** that details its operations, budget, and other documents for public consumption.
- The Asian Development Bank (ADB) is based on the World Bank and uses a weighted voting method in which votes are awarded in proportion to members' capital contributions.

Only 9.3% Of Loans Under PM SVANidhi Given To Vendors From Minority Communities

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: PM SVANidhi

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 Housing and Urban Affairs, 42.7 lakh loans totaling Rs.5,152.37 crore were distributed to street vendors under the PM SVANidhi scheme, with only 3.98 lakh or 9.3% going to hawkers from minority groups.

What is PM SVANidhi?

- The Ministry of Housing and Urban Affairs introduced the PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) plan to empower street vendors by not only providing loans, but also promoting their holistic development and economic upliftment.
- The PM SVANidhi is a micro-credit plan introduced by the government in 2020 to help street vendors cope with pandemic-induced economic duress.
- It allows for collateral-free loans of Rs.10,000, with additional loans of Rs.20,000 and Rs.50,000 with a 7% interest subsidy.



What is the importance of the scheme?

- This plan assists in mainstreaming and legitimizing genuine street vendors who do not have legitimate identification papers.
- Through loans and digital transfers, the plan integrates street sellers into the financial mainstream.

Share of loans to street vendors of minority communities

- According to Ministry statistics, the percentage of loans to minority community street vendors fell from 10.23% in 2020-21 to 9.25% in 2021-22, with an all-time low of 7.76% in 2022-23.
- Minorities received 2,10,457 loans in 2020-21,
 - 98,973 loans in 2021-22, and
 - 88,609 loans in 2022-23.

Current Status

- As of November 30, 2022, 31.73 lakh street vendors had received the first loan of Rs.10,000; 5.81 lakh had received the second loan of Rs.20,000; and 6,926 street vendors had received the third loan of Rs.50,000.
- The establishment of vending zones comes under the purview of the Street Vendors (Protection of Livelihood and Regulation of Street selling) Act, 2014, which is being enacted through the appropriate State/UT.
- According to the states/UTs, a total of 13,403 vending zones have been identified so far.
- By December 2024, 42 lakh street sellers are to be provided benefits under the PM SVANidhi Scheme.

Conclusion

- The statistics from PM SVANidhi loans paints a dismal image for minority street sellers.
- Despite the fact that minorities account for approximately 20% of the total population of the nation, their presence among street sellers is said to be extensive for a variety of socioeconomic reasons.
- According to the statistics, loan disbursement by state appeared to be proportional to population, with Uttar Pradesh disbursing the most loans at 11,22,397, while Sikkim disbursed just one.
- In addition, with 95,032 loans, Uttar Pradesh provided the most to hawkers from minority groups.

Core Sector's Output Dipped To 5-Month Low Of 3.6% In March

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: Indian Economy

Prepp Mains Booster: Indian Economy; Infrastructure

Context:

- Recently, it was stated that there was a **dip in the output of India's core sectors in the month of March**.

- Growth in India's eight major sectors output fell to a five-month low of 3.6% in March, from 7.2% in February, with electricity and cement production declining from a year ago, and crude oil output falling for the tenth month.
- The Eight Core Industries (Coal, Electricity, Fertilizers, Steel, Natural Gas, Refineries, Cement, Crude Oil) account for 40.27 percent of the weight of products included in the Index of Industrial Production (IIP).
- The combined Index of Eight Core Industries (ICI) fell to a five-month low of 3.6% in March 2023 compared to March 2022. Coal, fertilizers, steel, natural gas, and refinery products output increased in March 2023 compared to the same month previous year.
- For the full fiscal year 2022-23, core sectors increased by 7.6% compared to 10.4% in 2021-22, with all sectors reporting higher output except crude oil, which decreased by 1.7%.
- The core sector is also known as infrastructure output since it represents the basic industries that constitute the base of the economy. Hence, decline in the year or year performance may hamper the basic structure of the economy.

Weaker core

Government data showed that the output of eight infrastructure sectors saw a growth of only 3.6% in March 2023, the lowest in the past five months



What are Core Sectors?

- 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.
- They are so-called as are considered to be the backbone of all other industries. The core sectors have a significant impact on the economy and impact most other industries as well.

What is the Index of Industrial Production (IIP)?

- [Index of Industrial Production \(IIP\)](#) is an indicator that measures the changes in the volume of production of industrial products during a given period.

- It is compiled and published monthly by the Central Statistical Organization (CSO), Ministry of Statistics and Programme Implementation.
- It is a composite indicator that measures the growth rate of industry groups classified under:
 - Broad sectors, namely, Mining, Manufacturing, and Electricity.
 - Use-based sectors, namely Basic Goods, Capital Goods, and Intermediate Goods.
- Base Year for IIP is 2011-2012.

Current weight of eight core industries

Industry	Weightage
Coal production	10.33 per cent
Crude Oil production	8.98 per cent
Natural Gas production	6.88 per cent
Petroleum Refinery production	28.04 per cent
Fertilizers production	2.63 per cent
Steel production	17.92 per cent
Cement production	5.37 per cent
Electricity generation	19.85 per cent

What will be the impact?

- It would have an impact on industrial production figures for the month as core sector or critical infrastructure industries account for 40.27 percent of the overall Index of Industrial Production (IIP).

Importance of Core Industries

- The core sectors have a substantial influence on the Indian economy and most other industries.
- Their measurements aid in accounting for the physical volume of production in India.
- Their analysis provides a clearer and more realistic picture of what is going on in the economy.
- Government agencies utilize their progress to make policies.
- They are still vitally important in calculating quarterly and advanced GDP estimates.
- The core sector is also known as infrastructure output since it represents the basic industries that constitute the foundation of the economy.

ISRO Successfully Performs Landing Test Of The Reusable Launch Vehicle

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: ISRO

Prepp Mains Booster: Awareness in the field of Space; Achievements of Indians in science & technology; Indigenization of technology and development of new technology.

Context:

- Recently, the Indian Space Research Organisation (ISRO) successfully carried out the landing experiment of the Reusable Launch Vehicle-Technology Demonstration (RLV-TD) program at the Aeronautical Test Range in Challakere, Chitradurga.
- The space agency conducted the '**Reusable Launch Vehicle Autonomous Landing Mission (RLV LEX)**' at the Aeronautical Test Range of the Defence Research and Development Organisation (DRDO) in Karnataka's Chitradurga district.
- A reusable launch vehicle is the unanimous solution to achieve low cost, reliable and on-demand space access.

About the RLV-LEX Mission

- The Reusable Launch Vehicle Autonomous Landing Mission (RLV LEX) test was **the second of five tests** and part of ISRO's efforts to develop space planes/shuttles that can travel to low earth orbits, deliver payloads and return to earth for use again.

- The RLV was lifted by a Chinook Helicopter of the Indian Air Force, which carried it as an underslung load to a height of 4.5 km above mean sea level (MSL).
- After the RLV had achieved the predetermined pillbox parameters, based on the command of the RLV's Mission Management Computer, it was released mid-air at a downrange distance of 4.6 km.
- ISRO achieved a successful autonomous landing of the RLV space vehicle, which was released autonomously and completed landing maneuvers using an Integrated Navigation, Guidance & Control system.
- The **landing** was carried out under conditions similar to those experienced by a **space re-entry vehicle**, including high speed, unmanned landing, and precise landing from the same return path.
- In a first in the world, a winged body has been carried to an altitude of 4.5 km by helicopter and released for carrying out an autonomous landing on a runway.
- RLV is essentially a space plane with a low lift to drag ratio that necessitates high glide angles for approach and high landing speeds of 350 kmph. LEX utilized several indigenous systems.
- Localized Navigation systems based on pseudolite systems, instrumentation, and sensor systems, etc. were developed by ISRO.



RLV-LEX Mission Profile

What is a Reusable Launch Vehicle – Technology Demonstrator (RLV-TD)?

- ISRO's Reusable Launch Vehicle - Technology Demonstrator (RLV-TD) aims to develop fundamental technologies required for a fully reusable launch vehicle to enable low-cost access to space.
- The RLV-TD will be used to develop technologies like hypersonic flight (HEX), autonomous landing (LEX), return flight experiment (REX), powered cruise flight, and Scramjet Propulsion Experiment (SPEX).
- Its configuration is similar to that of **an aircraft**
- It combines the complexity of launch vehicles and aircraft.
- The winged RLV-TD has been configured to act as a flying test bed to evaluate various technologies, namely, hypersonic flight, autonomous landing and powered cruise flight.
- RLV-TD consists of a fuselage (body), a nose cap, double delta wings and twin vertical tails.

What is the advantage of a reusable launch vehicle?

- High costs are acting as a major deterrent to space exploration, a reusable launch vehicle is considered a low-cost, reliable, and on-demand mode of accessing space.
- According to former ISRO chairman K Sivan, nearly 80 to 87 percent of the cost of a space launch vehicle goes into the structure of the vehicle.
- The costs of propellants are minimal in comparison. By using RLVs the cost of a launch can be reduced by nearly 80 percent of the present cost.

ISRO To Launch Singapore's TeLEOS-2 Satellite

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: TeLEOS

Prepp Mains Booster: Space technology

Context:

- The **Indian Space Research Organization (ISRO)** will launch **Singapore's TeLEOS-2 satellite from the Satish Dhawan Space Centre in Sriharikota on April 22.**
- The launch will be carried out by the **Polar Satellite Launch Vehicle (PSLV).**



Background

- This launch will be the PSLV's 55th mission, and TeLEOS-2 is an Earth Observation Satellite created by ST Engineering. This is the second ST Engineering satellite to be launched by ISRO.
- ISRO launched TeLEOS-1, the first Singapore commercial Earth Observation Satellite, into a low Earth orbit in 2015 for remote sensing purposes.
- ISRO has so far launched nine satellites belonging to Singapore.
- The PSLV-C55 is ISRO's third launch this year, with the last PSLV mission taking place in November of last year.

About the Mission

- The **Indian Space Research Organization (ISRO)** is preparing for another commercial launch on Saturday, carrying the Singaporean Earth Observation satellite TeLEOS-02 on board the workhorse Polar Satellite Launch Vehicle.
- The satellite on board will be TeLEOS 2, a 750kg earth observation satellite with synthetic aperture radar capable of producing 1-metre resolution data.
- This will be Isro's third launch of the year, with each launch employing a different launch vehicle.
- The first launch occurred in February, when the new **Small Satellite Launch Vehicle (SSLV)** successfully launched three satellites and was declared operational by the space agency.
- The second launch occurred in March, when India's heaviest LVM3 launched **36 OneWeb satellites** in a purely commercial mission.

TeLEOS-2 Satellite

- TeLEOS-2 is a Singaporean Earth Observation satellite manufactured by ST Electronics (Satellite Systems).
- It is equipped with a Singapore-made Synthetic Aperture Radar (SAR) capable of giving data with a resolution of 1 meter.
- It will include a 500 GB onboard recorder for capturing data and a high-speed downlink of 800 Mbps.

Feature	GSLV	PSLV
Purpose	To launch satellites into Geostationary Orbit (GEO), which is located at an altitude of approximately 36,000 km above the Earth's surface.	To launch satellites into Low Earth Orbit (LEO), Polar Orbit, and Sun-Synchronous Orbit (SSO), which are located at an altitude of up to 2,000 km above the Earth's surface.
Payload capacity	Higher, capable of launching satellites weighing up to 2,500 kg into Geostationary Transfer Orbit (GTO) and up to 4,000 kg into LEO.	Lower, capable of launching satellites weighing up to 1,500 kg into LEO and up to 1,200 kg into Polar Orbit.
Stage configuration	Three-stage vehicle, with a solid-fueled first stage, a liquid-fueled second stage, and a cryogenic third stage.	Four-stage vehicle, with alternating solid and liquid-fueled stages.
Launch cost	Higher, due to the complexity and cost of the cryogenic third stage.	Lower, due to the simpler stage configuration and the use of less expensive solid-fueled stages.
Launch frequency	Lower, due to the limited availability of cryogenic fuels and the higher cost of GSLV missions.	Higher, due to the simplicity and lower cost of PSLV missions.
Reliability	High, due to the mature technology used in the GSLV and its successful track record of launches.	High, with a proven track record of successful launches and a reliable and well-established launch infrastructure.

What is the Polar Satellite Launch Vehicle (PSLV)?

- Polar Satellite Launch Vehicle (PSLV) is an indigenously developed third-generation launch vehicle by ISRO.
- It comes in the category of medium-lift launchers with a reach up to the GeoSynchronous Transfer Orbit, Lower Earth Orbit, and Polar Sun Synchronous Orbit.
- PSLV is a four-stage rocket that combines solid and liquid propellants.

Conclusion

This will be the 57th launch of PSLV, which has shown to be one of Isro's most reliable vehicles, having carried hundreds of satellites with only three failures or partial failures since 1993. The launch vehicle has also flown India's high-profile missions, including Chandrayaan-1, Mangalyaan, and AstroSat.

Webb Space Telescope Shows Off 'Amazing' Power By Spotting Compact Galaxy

Priority: Medium



Primary Source: The Hindu

Prepp Prelims Booster: Webb Space Telescope

Prepp Mains Booster: Development in the field of science & Technology, Space Technology

Context:

- Recently, using first-of-their-kind observations from the **James Webb Space Telescope**, researchers detected a unique **galaxy highly compact** but with star formation still at a rate **similar to our much-larger Milky Way** existed about 13.3 billion years ago that could help astronomers learn more about galaxies that were present relatively shortly after the Big Bang.

What are the findings?

- **Detection of highly compact galaxy:** The James Webb Space Telescope detected a highly compact galaxy that **formed relatively soon after the Big Bang** and displayed an impressive rate of star formation.
- The big bang is how astronomers explain the way the universe began. It is the idea that the universe began as just a single point, then expanded and stretched to grow as large as it is right now—and it is still stretching!
- The galaxy, which is 13.3 billion years old and roughly 1,000 times smaller than the Milky Way, has a diameter of around 100 light-years, but it is still **forming stars at a rate remarkably close** to that of our much larger present-day galaxy.
- A light-year is the distance light travels in a year, 5.9 trillion miles (9.5 trillion km).
- It existed about 510 million years after the Big Bang event marking the universe's origin. The universe at the time was less than 4% of its current age.
- The **James Webb Space Telescope (JWST)** has been designed to observe primarily in the **infrared portion** of the electromagnetic spectrum, while the **Hubble Space Telescope (HST)** has been primarily

used for observations in the **optical and ultraviolet portions** of the spectrum.

- The electromagnetic (EM) spectrum is the range of all types of EM radiation. Radiation is energy that travels and spreads out as it goes – the visible light that comes from a lamp in your house and the radio waves that come from a radio station are two types of electromagnetic radiation.
- The other types of EM radiation that make up the electromagnetic spectrum are microwaves, infrared light, ultraviolet light, X-rays and gamma-rays.
- JWST's (James Webb Space Telescope's) reach into the first billion years of the universe has given astronomers a lot to consider and try to understand about when and how many galaxies formed.
- The newly described galaxy being observed may contain a globular cluster that is in the process of forming.
- **Globular clusters** are dense groups of stars that are held together by **gravity and typically** contain tens of thousands to millions of stars.
- According to scientists, the galaxy is "absolutely tiny" relative to other galaxies, but it is **still forming stars at a rate of about two per year**, which is similar to the rate at which our own Milky Way galaxy is forming stars.
- The scientists looked at this galaxy's chemical makeup and discovered, for instance, an oxygen abundance that was significantly lower than what is commonly observed in **modern galaxies, and with good cause**.
- The **thermonuclear reactions** inside stars forge oxygen and other atoms heavier than hydrogen and helium, which are eventually ejected into space when stars explode at the conclusion of their life cycles.
- Such heavier elements were rare at that time since the universe had experienced far fewer star births and deaths.
- The combined power of the **James Webb Space Telescope** and the galaxy's magnification due to **gravitational lensing** allowed the scientists to study this galaxy in detail.
- "Gravitational lensing" occurs when an immense amount of matter, like a grouping of galaxies, creates a gravitational field that distorts and magnifies light traveling from distant galaxies located behind it but in the same line of sight.



What is the James Webb Space Telescope?

- The James Webb Space Telescope (sometimes called JWST or Webb) is an orbiting infrared observatory that will complement and extend the discoveries of the Hubble Space Telescope, with longer wavelength coverage and greatly improved sensitivity.
- The longer wavelengths enable Webb to look much closer to the beginning of time and to hunt for the unobserved formation of the first galaxies, as well as to look inside dust clouds where stars and planetary systems are forming today.

Conclusion

- By studying these early galaxies, scientists hope to gain a better understanding of how the universe evolved over time.

- The James Webb Telescope which was launched in 2021, began collecting data last year, and is playing a significant role in transforming our knowledge of the nature of the early universe.

Why Is A Star-Planet Pair Just 12 Light-Years Away Emitting Radio Signals?



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Science and technology

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life, Awareness in the field of Space,

Context:

- Recently, astronomers have detected recurring radio signals from the exoplanet, YZ Ceti b.
- YZ Ceti b was a rocky, earth-sized exoplanet that rotated around YZ Ceti, a small red dwarf star located around 12 light-years from the Earth.
- The discovery of radio signal transmission was significant in understanding the evolution and characteristics of planetary bodies.

What have astronomers discovered about YZ Ceti b?

- **YZ Ceti b** was a rocky, earth-sized exoplanet that orbited the **small red dwarf, YZ Ceti**.
- YZ Ceti was located 12 lightyears away from the Earth.
- Jackie Villadsen from Bucknell University and Sebastian Pineda from the University of Colorado have detected the presence of recurring radio signals from the planet using the Karl G. Jansky Very Large Array Radio Telescope in New Mexico.
- Multiple observations of YZ Ceti had to be made to detect the radio signals which coincided with the orbital periods of YZ Ceti b. As a result, the researchers were able to conclude that the radio signals were generated through the interaction between the planet's magnetic field and the star.
- The discovery indicated a **magnetic field around the planet, which was a critical requirement for a habitable planet.**



Exoplanets

- Exoplanets refer to planets outside the solar system.
- These were usually part of star systems while some were not part of any system and were called rogue exoplanets.
- The first exoplanet was discovered in 1992 and since then NASA has confirmed the existence of nearly 5000 exoplanets.
- The different types of exoplanets are:
 - **Terrestrial:** Earth-sized or smaller, they could be rocky or metallic and possess oceans and an atmosphere
 - **Super-Earths:** These are similar to terrestrial satellites but larger in size and may or may not have atmospheres.

- **Neptune-like:** They were larger than super-earths and similar to Neptune and Uranus with hydrogen or helium-dominated atmospheres.
- **Gas Giants:** These were similar in size or larger than Jupiter and Saturn. Large planets in close proximity to their stars, also known as "scorching Jupiters" were a part of this category.
- Indirect methods have to be used to observe exoplanets such as gravitational microlensing as the glare of the stars near the planets prevented them from being observed clearly through telescopes.
- The study of exoplanets would help astronomers understand the evolution of the atmosphere and explore possible habitable planets.

Why does the magnetic field matter?

- The intense bursts of energy from the YZ Ceti pair could produce spectacular auroral lights similar to how the solar emissions damaged orbiting satellites and disrupted telecommunication services on Earth.
- Researchers have said that this phenomenon could be seen indirectly through the radio emissions obtained.
- The radio waves which were strong enough to be detected on Earth confirmed the presence of an exoplanetary magnetic field
- Such radio signals could only be produced if the **exoplanet orbited in a path very close to its star and possessed its own magnetic field which could affect the stellar wind and produce the signals.**

What are the implications of the YZ Ceti b?

- Astronomers have discovered that YZ Ceti b took just a couple of Earth days to orbit the red dwarf star, which further explained the presence of a magnetic field.
- In comparison, Mercury, the smallest planet in the Solar System took little less than three earth months to orbit the sun.
- Astronomers have found evidence of numerous planets orbiting sunlike stars which suggested that the formation of planets was similar in most of the galaxies of the universe.
- Space Science Missions such as the Kepler, Gaia and James Webb Telescope have suggested that around 300 billion planets existed in the Milky Way.
- This would imply that nearly half of the visible stars could have rocky, earth-sized planets orbiting around their suns within the habitable zone.
- Planets which possessed an atmosphere and water sources had to be located within a certain distance from the star, known as the **Goldilocks zone** or it would be burnt.
- Consider the case of the Earth. If it was even a little closer to the sun, it would be much hotter and harsher like Venus and if it was a little farther, it would be barren and cold like Mars.
- According to the estimates by researchers, around 30% of the total star-planet systems discovered could possess similar Goldilocks zones.

Are exoplanetary magnetic fields common?

- Researchers have suggested that it was probable that strong planetary magnetic fields were common outside the solar system.
- This was the **first time that astronomers discovered a magnetic field around a smaller, rocky exoplanet.** Magnetic fields have been previously observed around larger exoplanets.
- The research team has stated that the findings if confirmed by further research, could lead to a methodology for the magnetic characterisation of the exoplanets.
- **The survival of a planet's atmosphere could depend on the strength of its magnetic field.**
- A strong magnetic field would protect the planet's atmosphere from being eroded by the charged particles emitted by the star.
- Generally, planets which were as close to their stars as the YZ Ceti pair were extremely hot and their atmospheres had been eroded over billions of years.

Similarities with Mars

- Researchers hoped to compare the evolution of Mars and understand if YZ Ceti b would follow the same process.

- Mars, which existed at a 'safe' distance from the sun was once similar to the Earth with lots of water, warm oceans, rain and a similar atmospheric system.
- However, Mars was now a barren and cold planet whose atmosphere had been eroded by solar winds, unlike the Earth which was capable of sustaining life.
- The research team hoped to make detailed observations of the exoplanet and conduct long-term investigations on the radio signals.
- The findings would allow researchers to understand the rocky netherworlds which were found across the Universe.

JUICE Mission To Hunt For Life In Jupiter Launched Successfully



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: JUICE Mission

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life, Awareness in the field of Space

Context:

- Recently, the European Space Agency launched the JUICE Mission which would observe Jupiter and its moons - Ganymede, Callisto and Europa.
- The Mission was aimed at discovering whether these locations had sites that could support life.

What is the JUICE Mission?

- The **JUICE or Jupiter Icy Moons Explorer Initiative** was a mission launched by the European Space Agency to explore Jupiter and three of its four largest moons, also known as Galilean moons.
- The Mission was launched from the ESA spaceport in Kourou, French Guiana via the Ariane-5 Launcher on 14th April 2023.
- JUICE has been constructed by a consortium led by the European aerospace corporation, Airbus, on the basis of the requirements presented by the ESA.
- JUICE was expected to reach Jupiter by 2031 and has a mission life of three years which could be extended by around 200 days.
- The Mission will conduct numerous flybys of **Ganymede, Callisto and Europa** before settling into an orbit around Ganymede.



Components of JUICE

- The mission, which was worth \$1.7 billion, has been equipped with remote-sensing, geophysical and other in-situ equipment.
- The main engine consisted of a bi-propellant that was made up of mono-methyl hydrazine and a mixture of oxides of nitrogen.

- The spacecraft, which has a 27 m tip-tip wingspan was powered by solar energy and had 10 solar arrays arranged in its two wings. It was projected to produce around 850 watts of energy at Jupiter.
- The Mission was also equipped with radiation shielding to protect the spacecraft's equipment from the harsh effects of the Jovian atmosphere.

What are the objectives of the JUICE mission?

- **JUICE's** mission was to make detailed observations of Jupiter and icy moons which scientists believed contained oceans of water under the surface.
- The Mission would help scientists locate sites which may be capable of supporting life due to the presence of internal energy and liquid water.
- The ESA has also stated that JUICE would extensively explore Jupiter's complex and dynamic environment and study the Jupiter system as a model for understanding the gas giants of the solar system.
- According to researchers, Ganymede and Callisto were ocean worlds. JUICE would map the topography, geology and composition of their surfaces, characterize their ocean layers and detect any subsurface reservoirs.
- **NASA's Galileo Mission** revealed in 1996 that Ganymede possessed its own intrinsic magnetic field, the only moon to do so
- Another objective of the mission was to examine Ganymede's magnetic field and understand its interactions with the Jovian magnetosphere.
- NASA has stated that JUICE would study the planet's chemistry including organic molecules collected in samples which could lead to a better understanding of the planet's surface features and the composition of its non-water ice materials.

On Europa

- The ESA has determined that the possibility of finding life was very high on Europa which was believed to possess life-suitable environments.
- Europa was known to possess the **three factors which were essential in sustaining life:**
 - **Water in the liquid form**
 - **An energy source**
 - **Organic compounds** which would perform the role of building blocks of biological processes

NISAR Satellite To Map Himalayas' Seismic Zones -



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: NISAR

Prepp Mains Booster: Space; Disaster Management

Context:

- NISAR, jointly developed by the Indian Space Research Organisation (ISRO) and the National Aeronautics and Space Administration (NASA) of the U.S. will map the most earthquake-prone regions in the Himalayas with unprecedented regularity.



How will NISAR satellite help?

- Geologists and seismologists can map out regions based on the intensity of past earthquakes, the knowledge of the speed at which plates move and the locations at which plates interact (called faults) that are most vulnerable to earthquakes and estimate how far the resultant tremors can travel. However, timing can't be deduced.
- Ground-based observatories can pick up underground waves that result from an earthquake and provide early warning.
- Satellites, depending on their position and by virtue of their distance from the Earth can image a large area and, if monitored frequently, can show how mountains and geological formations **are changing over time**.
- A "strain map" of the Himalayas based on data from 1,252 GPS stations along the Himalayas was published by scientists from the Geological Survey of India in 2021.
- It identified regions that had the greatest odds of **generating earthquakes of magnitude above 8** and their extent.
- These many stations are still very few and there's only one satellite (Sentinel) GSI rely's on. **NISAR can be a game-changer** in earth-science observation.
- The data this would produce may be able to identify areas that are most vulnerable to earthquakes and provide early warning of land subsidence.
- The NISAR satellite will use two frequency bands: **the L-band and S-band to image** the seismically active Himalayan region that will, every 12 days, create a "deformation map".
- This information can be used by the geoscientist to assess how strain is developing in various Himalayan regions.
- **Strain refers to the deformation** that occurs in rocks when it is under **pressure from other rocks**, typically due to movements of continental plates that are sliding, colliding, or subducting against each other.
- For instance, the Indian Plate, collided into the Eurasian plate forming the Himalayas and continues to incrementally push it upwards.
- These two frequency bands (L-band and S-band) will **together provide high-resolution, all-weather data**.
- NISAR will be able to provide images even under cloudy conditions, NISAR would be a valuable tool to study deformation patterns, such as in Joshimath,
- Many areas of Uttarakhand had "sunk" due to **land subsidence or subsurface loosening**, which allowed water to enter homes through cracks and crevices.
- In 2021, a large landslide of rock and ice triggered a flash flood in Chamoli, Uttarakhand that claimed close to 200 lives and destroyed two hydropower projects.
- The satellite imagery helped the scientists decode the cause of the flash floods.

What is NISAR satellite?

- NISAR is a joint Earth-observing mission between NASA and the Indian Space Research Organization (ISRO) with the goal to make global measurements of the causes and consequences of land surface changes using advanced radar imaging.
- NISAR will be the **first radar of its kind in space to systematically map Earth**, using two different radar frequencies (L-band and S-band) to measure changes in our planet's surface less than a centimeter across.
- Synthetic Aperture Radar (SAR) refers to a technique for producing fine-resolution images from a resolution-limited radar system.

Significance

- **Earth Science:** NISAR will map the entire globe in 12 days, according to ISRO, and provide spatially and temporally consistent data for understanding changes in Earth's ecosystems, ice mass, vegetation biomass, sea level rise, groundwater, and natural hazards, such as earthquakes, tsunamis, volcanoes, and landslides.
- It will also add to our understanding of our planet's hard outer layer, called its crust.
- **Disaster Management:** NISAR's global and rapid coverage will provide unprecedented opportunities for disaster response, providing data to

assist in mitigating and assessing damage, with observations before and after disasters in short time frames.

- **Open access to data:** NISAR's data will be open access, and more policymakers worldwide will be able to use them to meet scientific, societal, and commercial goals.
- The satellite is expected to be launched in 2024 from Satish Dhawan Space Centre in Andhra Pradesh, into a near-polar orbit.

Seismic Zoning Map Of India

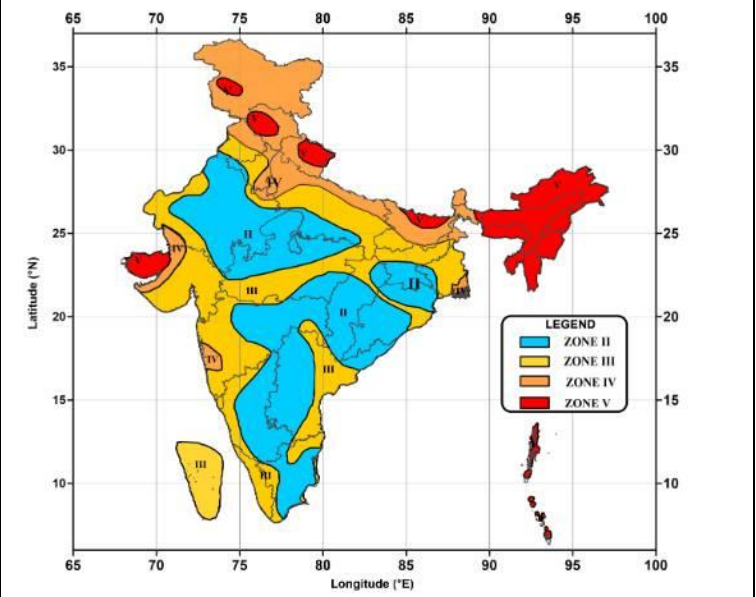
The India has been divided into four zones viz. zone V, IV, III and II according to the seismic zoning map of India prepared by **Bureau of Indian Standards (BIS)** based on the historical seismicity and strong ground motions. Out of these zones, Zone V exhibits the highest seismic risk and zone II has the least.

Zone V: Parts of Jammu and Kashmir (Kashmir valley); Western part of Himachal Pradesh; Eastern part of Uttarakhand, Kutch in Gujarat; part of Northern Bihar; all northeastern states of India and Andaman & Nicobar Islands.

Zone IV: Ladakh; Remaining parts of Jammu & Kashmir, Himachal Pradesh and Uttarakhand; Some parts of Haryana, Parts of Punjab; Delhi; Sikkim; northern part of Uttar Pradesh; small portions of Bihar and West Bengal; parts of Gujarat and small portions of Maharashtra near the west coast and small part of western Rajasthan.

Zone III: Kerala; Goa; Lakshadweep islands; parts of Uttar Pradesh and Haryana; remaining parts of Gujarat and Punjab; parts of West Bengal, western Rajasthan, Madhya Pradesh; remaining part of Bihar; northern parts of Jharkhand and Chhattisgarh; parts of Maharashtra, Odisha, Andhra Pradesh, Telangana, Tamilnadu and Karnataka.

Zone II: Remaining parts of Rajasthan, Uttar Pradesh, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Odisha, Andhra Pradesh, Telangana, Karnataka and Tamilnadu.



The Third-Gen Web Is About Public Good

Priority: High



Primary Source: Indian Express

Prepp Prelims Booster: Science and technology

Prepp Mains Booster: Awareness in the fields of IT & Computers; Indigenization of technology and developing new technology.

Context:

- In this article, A Damodaran, a Distinguished Professor at the Indian Council for Research on International Economic Relations (ICRIE) in New Delhi has discussed the **concept of the Third Generation Web**, which is about creating a more inclusive and accessible internet that serves the public good.

- There is a widespread belief that the third-generation web is biased toward the gaming and cryptocurrency industries.
- However, according to a 2021 report by the US-India Strategic Partnership Forum, the third-generation web would be critical for India to realize its \$1.1 trillion digital asset opportunity by 2032.

About Web3

- Web3 is decentralized, privacy-oriented, blockchain-driven, and crypto-asset friendly.
- Web3 aims to fundamentally alter the way data is created, monetised, shared, and disseminated.
- **Decentralized:** It promotes **decentralized data storage systems** with the goal of loosening the oligopolistic grip of technological behemoths on data.
- **Security:** Web3 offers file-sharing platforms like the Interplanetary File System that are **cryptographically secured**, and capable of **operating independently** of the Internet and blockchains. In this way, Web3 hopes to overcome blockchain data storage limitations.
- Web3 has bold elements such as the crucial role it provides to non-custodial wallets that serve as digital passports for users to access blockchain-enabled transaction platforms, as well as the replacement of micro-economic organizations with decentralized autonomous organizations (DAOs).



Core principles of Web3

- **Web3 is decentralized:** instead of large swathes of the internet controlled and owned by centralized entities, ownership gets distributed amongst its builders and users.
- **Web3 is accessible:** everyone has equal access to participate in Web3, and no one gets excluded.
- **Web3 has native payments:** it uses cryptocurrency for spending and sending money online instead of relying on the outdated infrastructure of banks and payment processors.
- **Web3 is trustless:** it operates using incentives and economic mechanisms instead of relying on trusted third- parties.

About Web 3.0

- **Semantic Web:** Web 3.0 preserves the property of the 'semantic web,' which is powered by Artificial Intelligence (AI).
- **Capacity to recombine information:** The true value of the semantic web is its capacity to **recombine information from other websites to create new content** and knowledge resources that are more genuine and innovative.
- **Capability of the data analytics:** Web 3.0 supporters argue that their version is endowed with robust capability on the data analytics front. It is suggested that Web 3.0 will result in **considerably better search engines**.

How can India benefit?

- The digital tokens minted by Web 3 platforms would enable our handcraft enterprises to secure their innovations.

- Web 3-based instruction tools enable the rapid dissemination of grassroots innovations from master artisans to fellow members, which would improve the economic fortunes of craftsmen and artisan communities.

Benefits from Web3.0:

- Web 3.0 can yield insights from large volumes of community data, generated by IoT- enabled development programmes such as the **Jal Jeevan Mission**.
- Web 3.0's natural advantage of facilitating 'analytics at the edge' provides considerable scope for **mapping the water use habits of communities**.
- Similarly, early warning systems for floods will improve with Web 3.0 due to data analytics facilities being obtained at the sub-basin level.
- Thus Web 3.0 will have a transformative role in regionally disadvantaged areas.
- Indeed, India's National Blockchain Strategy 2021 proposes to explore tokenisation and apply blockchains solutions for development programmes.

What are the challenges?

- India continues to be critically hampered by onerous restrictions that are causing a talent and funding drain.
- Regulatory uncertainty and a high tax rate on gains from trading virtual digital assets are two of these barriers.
- Blockchains and dApps are frequently resource heavy, necessitating costly hardware upgrades in addition to the environmental and monetary expenses of their energy use.
- The lack of data analytics skills to keep up with the rate of data collection in rural regions is a constraint today.
- India has a constantly growing pool of data analytics and web design skills. It is conceivable to draw upon the talent pool for the benefit of rural areas by offering incentives for decentralized analytics and tokenizing them (as planned in Web 3).

Way Forward

- The National Blockchain Strategy 2021 of India seeks to investigate tokenization and use blockchain technology for development programs.
- It is a logical development for India to develop a third-generation online strategy that maximizes public interest.
- An approach like this should aim to integrate the positive aspects of Web3 and Web 3.0.
- This third generation of the internet has the potential to address many of the challenges facing society today, such as inequality, disinformation, and privacy concerns.
- However, it will require a concerted effort from policymakers, entrepreneurs, and civil society to ensure that it is developed in a way that prioritizes the public good over profit.

Genome Sequencing And The Genome India Project

Priority: High



Primary Source: The Hindu

Prepp Prelims Booster: Biotechnology

Prepp Mains Booster: Biotechnology, Scientific Innovations & Discoveries, Indigenization of Technology

Context:

- Recently, the Department of Biotechnology (DBT) announced that the effort to sequence 10,000 Indian human genomes and develop a database under the Centre-backed Genome India Project is almost two-thirds complete.
- Approximately 7,000 Indian genomes have now been sequenced, with 3,000 available for public use by researchers.

Background

- The Human Genome Project began in 1990, when a group of scientists began working on establishing the whole sequence of the human genome.

- The first results of the entire human genome sequencing were published in 2003. The Human Genome Project produced the most recent version of the whole human genome in 2023, with a 0.3% error margin.
- Genomic sequencing has progressed to the point that big sequencers can process thousands of samples at once.
- There are various ways to genome sequencing, including whole genome sequencing and next generation sequencing, each with its own set of advantages.
- The Human Genome Project enabled whole-genome sequencing, which now allows researchers to examine an individual's genome to find deviations from the average human genome.
- These variances or mutations can inform us about a person's susceptibility or future vulnerability to a disease, their reactivity or sensitivity to a specific stimuli, etc.

What is Genome Sequencing?

- A genome is a genetic material that gives instructions for the formation, growth, and functioning of all living things. It is made up of DNA with a sequence of chemical bases that defines an organism's traits.
- The human genome is the entire set of deoxyribonucleic acid (DNA) residing in the nucleus of every cell of the human body.
- It carries the complete genetic information responsible for the development and functioning of an organism.
- The DNA consists of a double-stranded molecule built up by four bases.
- While the sequence of base pairs is identical in all humans, there are differences in the genome of every human being that makes them unique.
- The process of deciphering the order of base pairs, to decode the genetic fingerprint of a human is called genome sequencing.



About Genome India Project (GIP)

- The Genome India Project (GIP) is a national initiative launched by the Indian government in 2019 with the aim of sequencing the genomes of more than 10,000 Indians representing diverse populations from different regions of the country.
- The project is being coordinated by the Council of Scientific and Industrial Research (CSIR) and the Department of Biotechnology (DBT).
- The objectives of the GIP are to create a comprehensive database of genetic variations in the Indian population, study the genetic basis of diseases, develop personalized medicine, and promote research and development in the field of genomics.
- The GIP is a collaborative effort involving several institutes and organizations across the country, including CSIR institutes, the National Centre for Cell Science (NCCS), the Indian Institute of Science Education and Research (IISER), and the National Institute of Biomedical Genomics (NIBMG).

Need of GIP

- India's 1.3 billion-strong population consists of over 4,600 population groups, many of which are endogamous. Thus, the Indian population

harbours distinct variations, with disease-causing mutations often amplified within some of these groups.

- Findings from population-based or disease-based human genetics studies in other groups throughout the world cannot be extended to Indians. Despite its enormous population and various ethnic groupings, India lacks a comprehensive record of genetic variants.
- Creating a database of Indian genomes helps researchers to learn about genetic mutations specific to India's demographic groupings and utilize this information to tailor medications and cures.
- The Centre's Department of Biotechnology states that the research would assist unravel the genetic underpinnings of chronic diseases currently on the rise in India, such as diabetes, hypertension, cardiovascular diseases, neurodegenerative disorders, and cancer.

What are applications of genome sequencing?

- Genome sequencing has been used to evaluate rare disorders, preconditions for disorders and even cancer from the viewpoint of genetics, rather than as diseases of certain organs.
- Nearly 10,000 diseases — including cystic fibrosis and thalassemia — are known to be the result of a single gene malfunctioning.
- Chinese scientist Yong-Zhen Zhang, sequenced the genome of a novel pathogen causing infections in the city of Wuhan.
- It was after this that virologists began evaluating the sequence to try and understand how to combat the virus, track the mutating variants and their intensity and spread, and to come up with a vaccine.
- To enable an effective response against COVID-19, researchers kept track of emerging variants, conducting further studies about their transmissibility, immune escape and potential to cause severe disease.
- India also put in place a sequencing framework — the Indian SARS-COV-2 Genomics Consortia (INSACOG). This consortium of labs across the country, was tasked with scanning coronavirus samples from patients and flagging the presence of variants known to have spiked transmission internationally.

Significance of Genome India Project

- **Healthcare:** It will aid in the development of personalized medicine by predicting illnesses and adjusting therapy based on the genome of patients, allowing public health actions to be better targeted.
- **Ecology:** By traveling from the world's tallest mountain range to warm oceans across several bio-zones, this project might give a wealth of information on the interactions of species and genetic groupings within them.
- **Agriculture** would benefit from a greater knowledge of the genetic basis of plant vulnerability to pests and insects, lowering reliance on pesticides and other difficulties impeding output.
- **International Cooperation:** The Indian initiative will strive to substantially add to the current information about the human species and advance the cause, because of the size and diversity of the Indian population. The project is claimed to be one of the most significant of its type in the world Because of its magnitude and the diversity it would offer to genetic research.

Vertebrates Received Genes For Vision From Bacteria, Finds Study

Priority: **Medium**



Primary Source: Down to Earth

Prepp Prelims Booster: Science and technology

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life.

Context:

- Recently, a study whose findings were published in the Proceedings of the National Academy of Sciences has revealed that vision in vertebrates was linked to a gene transferred from bacteria around 500 million years ago.

- The gene contained instructions for making the IBRP, a protein which plays a key role in vision and was similar to bacterial proteins called peptidases.



What are the findings of the Study?

- A new study by researchers from the University of California, San Diego has revealed that a key gene in the vision of vertebrates could be traced back to bacteria.
- The Study which was published in the Proceedings of the National Academy of Sciences, U.S.A. has stated that the gene was transferred to an ancestor of the vertebrates around 500 million years ago.
- The gene which was linked to bacteria contained the instructions necessary for making the **interphotoreceptor retinoid-binding protein (IBRP)**.
- The IBRP sequence was found to be most similar to the **bacterial protein called peptidases** which could break down and recycle proteins.
- The IBRP played a key role in the vision of vertebrates.
- In humans, a mutated version of the gene was found to lead to various retinal diseases, such as **retinitis pigmentosa and retinal dystrophy**.
 - Retinal Pigmentosa:** It is a disorder affecting the eyes that causes loss of sight.
 - Retinal Dystrophy:** It is a degenerative disorder which leads to colour blindness, night blindness or even complete blindness.
- According to the researchers, a large number of eukaryotic functions originated in bacterial and viral genes. These included components of **antimicrobial and antiviral immunity, characteristics of metabolism and vision, and adaptation to environmental stress**.
- Scientists did not possess a complete understanding of how vision evolved in vertebrates as these advancements in eye arrangements occurred in animals that existed 500 million years ago.
- A 2008 study on vertebrate vision found that these animals were not mentioned in the fossil record or had not been preserved.
- Animals possessing intermediate eye features had most likely perished due to competition with other species that enjoyed better vision.
- The researchers have attempted to gain a more complete understanding of the evolution process of vertebrate vision by reconstructing the origin of the IBRP.
- A phylogenetic reconstruction which is a process that describes evolutionary relationships on the basis of the relative recency of their common heritage was performed by the team.
- The research team has stated that they have obtained clear and undeniable evidence of how a vertebrate ancestor acquired the bacterial gene.
- It had duplicated itself twice and further mutations in the gene could lead to an IBRP with novel functions.

- The transfer had most probably occurred through the interdomain horizontal transfer of genes which described the movement of genetic information between various organisms.
- Two additional independent instances of bacterial peptidase gene transfer to **eukaryotes** were identified in the analysis. One of the transfers was into fungi and the other into amphioxus species (small marine animals found in warm waters).
- However, the bacteria that transferred its gene to vertebrates could not be identified by the researchers.

Conclusion

- The researchers have claimed that their work revealed conclusive evidence of how bacterial genes provided a rich source of evolutionary information about bacterial species and eukaryotes.

African Swine Fever Threatens India's Pygmy Hog, Other Asian Wild Pig Species: 'Science' Article

Priority: **Medium**



Primary Source: Down to Earth

Prepp Prelims Booster: Pygmy Hog

Prepp Mains Booster: Conservation, environmental pollution and degradation, environmental impact assessment.

Context:

- Recently, an article published in the Science journal revealed that the spread of African Swine Fever could be deadly to the world's rarest and smallest pig, the pygmy hog.
- As part of the Pygmy Hog Conservation Programme, 150 individuals of the species, which was considered to be extinct, have been reintroduced into protected areas in Assam between 2008 and 2022.



What has the article stated?

- According to an article published in the Science journal, the **world's smallest and rarest pig, the pygmy hog**, could be threatened by the **African Swine Fever** disease which has devastated porcine populations across Asia since its emergence in China in 2018.
- The article also cited the damage caused to wild suid populations throughout the continent, especially in Southeast Asia.
- According to field ecologists, the **bearded pig** was the most common species observed on camera traps in Sabah, Malaysian Borneo.
- However, there have been zero recordings of the species in the past sixteen months.
- Although scientists have claimed that the true impact of the ASF on the bearded pigs species was not yet clear, their diminished number could affect other species in the region.
- The reduced bearded pig population would have a ripple effect on dependent species such as the Bornean tree frog which breeds in their wallows (places the pigs rolled around in mud or water) and dung beetles which feed on their scat (droppings).

- The report also warned that other swine species such as the **endangered pygmy hog** (India) and the **critically endangered Visayan warty pig** (Philippines) were at risk because their small populations and limited ranges made them susceptible to extinction.

What is African Swine Fever?

- African Swine Fever is a highly contagious viral disease that affects porcine species such as pigs and boars.**
- It was detected for the first time in Africa in the 1920s and has since been reported in the Caribbean, South America, Europe, and Asia.
- It is transmitted through
 - direct contact with infected pigs, feces, or body fluids,
 - indirect contact through people or equipment,
 - Consumption of infected meat or meat products,
 - Biological vectors like ticks.
- The disease has a **high mortality rate (95-100%) but is not known to affect humans.**
- Acutely infected species develop high temperatures, become dull, and lose their appetites. Other symptoms include vomiting, diarrhea, labored breathing and coughing, stillbirths, weak litters, and difficulty in standing.
- No cure or preventive vaccination** has been developed for the disease. As a result, culling is the only option available to prevent the spread.
- African Swine Fever was one of the diseases listed in the **Terrestrial Animal Health Code of the World Organisation for Animal Health.**

Pygmy Hogs

- Pygmy Hogs are a small porcine species known by the scientific name, **Porcula Salvania.**
- It is **endemic to India and has a primary habitat of tall, dense, and wet grasslands.**
- It is an **indicator species** that was initially found in the grassland plains between Uttar Pradesh and Assam, the Terai region of Nepal, and the duars of Bengal. However, it is now **restricted to a population of around 100-250 individuals in a few areas in Assam.**
- Pygmy hogs are considered to be one of the only mammals that build a home with a roof.
- Their diet consists of roots, tubers, insects, small reptiles, and rodents.

Conservation Status:

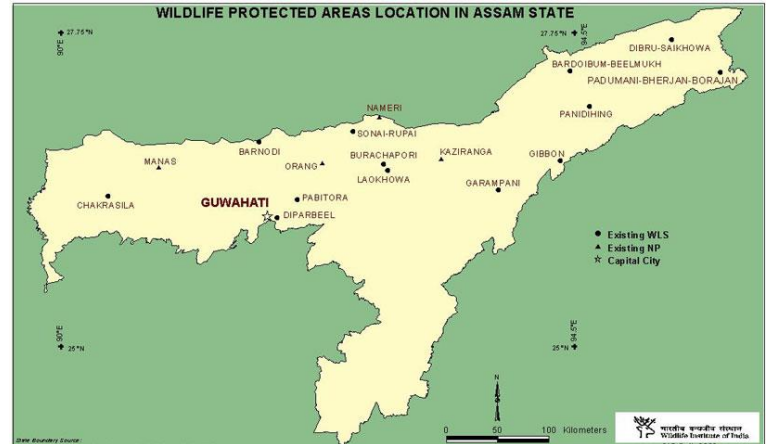
- IUCN Red List:** Endangered
- CITES:** Appendix I
- WPA, 1972:** Schedule I
- Threats faced by the species include degradation and loss of habitat due to human settlement, agricultural expansion, grazing, burning of grass, etc.

Pygmy Hog Conservation Programme

- The Pygmy hog was considered to be extinct in India until it was rediscovered in 1975.
- The **Pygmy Hog Conservation Programme (PHCP)** was initiated in 1995 by the **Durrell Wildlife Conservation Trust, U.K., and included the IUCN SSC Wild Pig Specialist Group, the MoEFCC, and the Assam Forest Department as partners.**
- The Programme is being **implemented by local partner NGOs Aaranyak and Ecosystems India.**
- Six Pygmy hogs were captured from the **Bansabari range of the Manas National Park in 1996** to initiate the recovery programme.
- In the period between 2008 and 2022, 152 individuals of the species have been reintroduced to four protected areas in Assam including **Manas National Park** where 36 hogs were released.
- The three other areas where the pygmy hogs have been released were **Sonai-Rupai Wildlife Sanctuary, Orang National Park, and the Barnadi Wildlife Sanctuary.**
- The captive breeding programme also maintains two populations of 80 individuals at the **Pygmy Hog Research and Breeding Centre, Basistha, in the foothills of the Garbhanga Reserve Forest,** and the

Pygmy Hog Prerelease Centre, Potasali on the edge of the Balipara Reserve Forest.


- The PHCP has planned to release 60 individuals of the species by 2025.



How could Pygmy Hogs be affected by ASF?

- When African Swine Fever was first detected in Assam in 2020, the Pygmy Hog Conservation Programme implemented an upgraded bio-security programme and conducted a disease-risk analysis in collaboration with the Royal Veterinary College, UK, and the Zoological Society, London.
- The disease-risk analysis revealed that the upgraded bio-security protocol is sufficient to mitigate any risks posed by the disease.
- According to the Project Director of the Pygmy Hog Conservation Programme, no cases of ASF had been reported in and around **Orang National Park which had a negligible domestic swine population. Therefore, the risk of ASF spreading from the domestic pigs to the wild boars was minimal.**
- However, there are reports of wild boar straying into fringe villages near the boundary of the **Manas National Park, where villagers practiced backyard pig-keeping.**
- This posed a threat of the infection spreading from infected domestic pigs to wild boars and through them to the pygmy hogs in the National Park.
- Experts have noted that there was no epidemiological evidence of the effects of ASF on pygmy hogs as it was a novel infection for the species.
- However, they have also stated that the impact could be similar to domestic pigs as pygmy hogs were also a porcine species.
- Therefore, **pygmy hogs, if infected could experience high mortality** which could have a detrimental impact on the species number which had been improved as a result of the initiatives of the PHCP.

New Frog Species Found In Meghalaya Siju Cave

Priority: Medium 

Primary Source: Down to Earth

Prepp Prelims Booster: Siju Caves

Prepp Mains Booster: Conservation, environmental pollution and degradation, environmental impact assessment.

Context:

- Recently, a new species of frog has been discovered in the Siju caves of Meghalaya by researchers from the Zoological Society of India.
- The Siju cave is a natural limestone cave located in the South Garo Hills district.

What is the new species of frog?

- Researchers from the **Zoological Survey** have discovered a new species of frog in the **Siju Cave** which is located in the South Garo Hills district of Meghalaya.
- The team of researchers has named the newly identified species **Amolops siju** in honor of the cave where the discovery was made.

- The species has been identified as a cascade ranid species of frog. Cascade species were named so because their preferred habitats were small waterfalls, also known as cascades, found in flowing hill streams.
- The genus Amolops with over 70 species was one of the largest groups of ranid frogs.
- The Amolops were widely spread over North and northeast India, Nepal, Bhutan, China, and other parts of Indochina including the Malay peninsula.



What was special about the species?

- According to the researchers, it was very rare that a new species was discovered in a cave.
- This is the second such discovery of a species from a cave in India. The earlier instance was the **Micrixalus spelunca, a species of frog discovered in a cave in the Western Ghats in 2014.**
- The research team stated that no evidence of troglotic or cave-adaptive modifications were found in the species which indicated that the Amolops siju was not a permanent resident of the cave.

How did the researchers identify the species?

- The team of researchers from the ZSI collected the specimens of the Amolops siju during a cave expedition in January 2020.
- The tissues samples were subjected to molecular studies in order to determine their identity and differentiate them from other species of cascade frogs of the genus Amolops that had been identified previously.
- The specimens were collected around 60-100 meters from the entrance to the cave and did not provide any evidence that the species was only found in the cave.
- On the basis of the morphological, molecular and spatial data collected by the team, it was concluded that the species of frog from the Siju cave had not been previously identified.
- The Amolops siju was the fourth species of frog identified by the team following the Amolops chanakya, Amolops terraorchis and Amolops tawang which were identified in Arunachal Pradesh.

Siju Cave

- The Siju cave is a natural limestone cave that was located near the **Simsang (Someshwari) river** in the South Garo Hills district of Meghalaya.
- According to Meghalaya State Tourism Department, **siju meant bat cave** in the local language.
- The cave system was around 4 Km long and was considered to be one of the longest cave systems in the country.
- The **Siju Wildlife Sanctuary (also known as the Siju Bird Sanctuary)** which was located in the region was a home for migratory species such as the Siberian duck and endemic species like the hornbill and peacock pheasant.
- Animal species found here include the sambar deer, elephants, tigers, leopards, boars, barking deer, etc.
- The **Attongs**, a subtribe of the Garos are the indigenous community of the Siju Wildlife Sanctuary.

- The Zoological Survey of India has claimed that frog populations have been reported in the Siju cave, upto a distance of 400 metres from the entrance, since the first speleological study of the cave in 1922. Speleology was the scientific study of caves and karst features.
- Over a hundred species of animals like crickets, spiders, beetles, and earthworms could be found in the cave system.

Zoological Survey of India

- The Zoological Survey of India or ZSI was established in 1916 as a subordinate organization of the Ministry of Environment, Forests and Climate Change.
- It was the premier body for research in India on animal taxonomy and zoology.
- **Objectives:**
 - Promote research, exploration, surveying, documentation, and advancement of knowledge regarding zoology in the country.
 - Conduct a status survey and bio-ecological studies of all threatened and endemic species in the country.
 - Preparation of the Red Data Book on the fauna of the country and the states
 - Maintain the database of recorded species and development of the National Zoological collections.
- **Functions:**
 - Publish data and information of fauna of the country and conserved areas
 - Training, Capacity building and Human Resource Development.
 - Conduct studies on threatened species and species diversity in the country using the latest technology and equipment.
 - Collaborate with international organizations and contribute to treaties such as ENVIS and CITES.
- The ZSI has its headquarters in Kolkata and 16 regional centers across the country.
- It has been declared a designated repository for the National Zoological Collection under Section 39 of the National Biodiversity Act, 2002.

First-Ever Census Finds 179 Mangrove Pitta Birds In Two Coastal Odisha Districts

Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Mangrove Pitta

Prepp Mains Booster: - Environment, conservation

Context:

- Recently, the first-ever census of mangrove pitta birds was carried out in two coastal districts of Odisha, (Kendrapara and Jagatsingpur) 179 such birds were sighted.
- Mangrove pitta birds are a nearly threatened species found in a few pockets of eastern India, including Odisha's Bhitarkanika and West Bengal's Sundarbans.
- The census was carried out for the first time in the country to study the population analysis of these birds

First-Ever Census of Mangrove Pitta Birds

- Data had been collected on the distribution, habitat, and breeding of mangrove pittas along the coastal mangroves, with a benchmark set up for subsequent population analysis.
- In this census, a total of 179 individual mangrove pitta birds were counted.
- The highest concentration of the birds was found in the mangroves near the Mahipura river mouth inside the Bhitarkanika National Park.
- The birds were counted by direct sighting and from their chirping.
- **Objective of the census:** It was to record the growth pattern of these birds.

- The census in the coming years **could throw light** on whether these species are threatened. These birds are **yet to be conferred the endangered category**.

Mangrove pitta

- Mangrove pitta is a colorful bird that has a black head with a brown crown, white throat, greenish upper parts, buff underparts, and a reddish vent area.
- It is found **in mangrove forests** where it feeds on crustaceans, mollusks, and insects.
- IUCN status: **Near threatened**



Distribution:

- India:** Suburbans (West Bengal), Bhitarkanika (Odisha)
- Global:** Bangladesh, Myanmar, Thailand, Malaysia, Singapore, Indonesia.



About Bhitarkanika

- Bhitarkanika is India's second largest mangrove ecosystem after the Sunderbans.
- Bhitarkanika National Park is located in Kendrapara district in Odisha. The national park is mostly a wetland and a mangrove forest.
- It was declared as a **Ramsar Site** in August 2002.
- A Ramsar Site is a wetland site designated to be of international importance. These wetlands are protected under strict guidelines of the Ramsar Convention on Wetlands.
- The Ramsar Convention on Wetlands, also known as the Convention on Wetlands, is an intergovernmental treaty for the conservation and wise use of wetlands that was signed in 1971 by UNESCO in the Iranian city of Ramsar.
- The National park is essentially a network of creeks and canals which are inundated with waters from rivers Brahmani, Baitarani, Dhamra and Patasala forming a unique ecosystem.
- Bhitarkanika is home to the **largest congregation of the endangered Salt Water Crocodile** in the country.
- The Salt Water Crocodile is the apex predator of the region, besides it, the park is home to numerous reptiles like the water monitor lizard, pythons to name a few.

- Bhitarkanika is also home to numerous animals like deer, hyenas, wild boar etc and migratory birds which make it their home during the winter season lending a vibrant hue to the ecosystem.

What are Mangroves?

- Mangroves are a group of trees and shrubs that live in the coastal intertidal zone.
- All of these trees grow in areas with low-oxygen soil, where slow-moving waters allow fine sediments to accumulate.
- Mangrove forests only grow at tropical and subtropical latitudes near the equator because they cannot withstand freezing temperatures.
- Significance:** Mangrove forests stabilize the coastline, reducing erosion from storm surges, currents, waves, and tides.
- The intricate root system of mangroves also makes these forests attractive to fish and other organisms seeking food and shelter from predators.

MISHTI (Mangrove Initiative for Shoreline Habitats & Tangible Incomes)

- During the Budget speech 2023-24, the Union finance minister announced multiple schemes for the protection and conservation of India's natural heritage, including **mangroves and wetlands**.
- MISHTI is a new program that will facilitate **mangrove plantations** along India's coastline and on salt pan lands.
- The program will operate through "convergence between **MGNREGS, CAMPA Fund**, and other sources.
- This new program **will aim at intensive afforestation of coastal mangrove** forests.
- Both the Eastern and Western coasts of India have such forests with the Sunderbans in Bengal being one of the largest mangrove forests on the planet.

Azerbaijan, Tajikistan Reach Malaria Free Milestone

Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Malaria

Prepp Mains Booster: Government policies and interventions; Health; Important International institutions

Context:

- Recently, the **World Health Organization (WHO)** has designated **Azerbaijan and Tajikistan as malaria-free for eliminating the Anopheles mosquito-borne illness in their regions.**

What is Malaria?

- Malaria is a fever sickness caused by Plasmodium parasites that are transmitted to humans by mosquito bites from infected female Anopheles mosquitoes.
- Human malaria is caused by five parasitic species, two of which – P. falciparum and P. vivax – are the most dangerous.
- The malaria parasite Plasmodium falciparum is the deadliest and most common on the African continent. In most places outside of Sub-Saharan Africa, P. vivax is the most common malaria parasite.
- The earliest signs of malaria—fever, headache, and chills, come 10–15 days after the infective mosquito bite and might be mild and difficult to distinguish from other illnesses.
- P. falciparum malaria can escalate to severe sickness and death in as little as 24 hours if left untreated.

How is it spread?

- The parasites propagate through female Anopheles mosquito stings.
- After invading the human body, parasites proliferate within the liver cells before attacking and rupturing the Red Blood Cells (RBCs).
- Malaria is caused by five parasite species, the most dangerous of which are Plasmodium falciparum and Plasmodium vivax.

Efforts taken by Tajikistan and Azerbaijan

- The declaration occurred following a century-long effort by the two countries to eradicate the illness.
- The global health organization certifies a nation as malaria-free when it can provide proof that the malaria transmission cycle has been interrupted for at least the last three years.
- The last instances of *Plasmodium vivax* malaria regional spread in Tajikistan and Azerbaijan were found in 2012 and 2014, respectively.
- Both nations have aggressively adopted targeted malaria interventions such as spraying insecticides on house walls, promoting early identification and treatment of all cases, and improving the skills and capacities of health employees involved in malaria eradication.
- Both nations have used national electronic malaria monitoring systems that identify cases in near real time, enabling for rapid inquiries.
- Other malaria-eradication strategies include biological larvae control (mosquito-eating fish), water management steps to decrease malaria vectors, and widespread malaria prevention instruction.



Initiatives taken by India

- **National Framework for Malaria Elimination:** Malaria elimination attempts in India began in 2015 and accelerated after the Ministry of Health and Family Welfare launched the National Framework for Malaria Elimination (NFME) in 2016. NFME is consistent with WHO's Malaria Strategy 2016-2030, which leads the WHO Global Malaria Programme (GMP).
- **National Strategic Plan for Malaria Elimination:** In July 2017, the National Strategic Plan for Malaria Elimination (2017-22) was unveiled, outlining plans for the next five years.
- **High Burden to High Impact:** In July 2019, the High Burden to High Impact (HBHI) program was launched in four regions (West Bengal, Jharkhand, Chhattisgarh, and Madhya Pradesh). The distribution of Long-Lasting Insecticidal Nets (LLINs) to high burden regions has resulted in a decrease in endemicity in these four extremely endemic states.
- **MERA-India:** The Indian Council of Medical Research (ICMR) has formed the Malaria Elimination Research Alliance-India (MERA-India), a collaboration of malaria control stakeholders.

Global Initiatives to curb Malaria

- Under the 'E-2025 Initiative,' the WHO has also selected 25 nations with the ability to eliminate malaria by 2025.
- The WHO's Global Technical Strategy for Malaria 2016-2030 seeks to decrease malaria case incidence and fatality rates by at least 40% by 2020, 75% by 2025, and 90% by 2030 compared to a 2015 baseline.

Ghana First To Approve Oxford's Malaria Vaccine For Children

Priority: **Medium**

Primary Source: Down to Earth

Prepp Prelims Booster: Malaria Vaccine

Prepp Mains Booster: Science and Technology- developments and their applications and effects in everyday life, GS2 - Issues relating to Health

Context:

- Recently, Ghana became the first country to approve a vaccine developed by Oxford University to tackle malaria in children.
- Malaria was known to kill more than 600,000 people annually while estimates suggested that in Africa the disease claimed the life of one child every minute.

What has Ghana approved?

- Ghana has approved a malaria vaccine developed by Oxford University in order to fight the disease which has led to the death of one child per minute in Africa.
- The vaccine has been approved for use in children between the ages of 5 and 36 months, which was the age group that faced the most risk from malaria.
- The decision to use the drug was made by the drug authorities of the country following the evaluation of the final trial data on vaccine safety and efficacy which has not yet been made public.
- The vaccine was already under consideration for approval by the WHO.

What is the vaccine?

- The vaccine has been developed by Oxford University to tackle the threat of malaria.
- Malaria has been known to cause around 600,000 deaths annually, most of which were children in Africa.
- The **R21/Matrix M1** is an antimalarial vaccine that has shown an efficacy of 77% in Phase 1 and 2 Trials in Burkina Faso and an efficacy of 80% following the use of a booster dose after a year.
- According to the University, the approval for use of the vaccine would help aid in the reduction of malaria cases and related deaths across the world.
- In 2020, the WHO approved the **Mosquirix vaccine** developed by GlaxoSmithKline as part of the **WHO's E-2025 initiative**.



Malaria

- Malaria is a mosquito-borne disease caused by the parasite **Plasmodium Vivax**.
- It was transmitted through the bite of an **infected Anopheles mosquito**. Other means of transmission include sharing of infected syringes, blood transfusion, organ transplantation and from mother to baby.
- Malaria was mostly prevalent in tropical and subtropical climates which were habitable for parasites. These include Africa, Latin America, and Asia.

- **Symptoms:** Shaking, chills, fever, diarrhoea, anaemia, muscle pain and in fatal cases coma, brain damage and death.
- Preventive chemotherapy is a treatment method used for malaria-infected patients.

Adoption and concerns

- Vaccines for children in Africa were usually contributed by international organisations such as UNICEF and WHO.
- This was the first instance of a vaccine being approved for use by an African country before it was approved by the richer developed nations.
- Scientists at Oxford have stated that it was unusual that an African country had reviewed the data faster than other countries but was consistent with the actions adopted by African countries post-COVID-19.
- An external benchmarking of the Ghanaian health regulatory system by the WHO in 2020 had revealed that it was integrated, stable and well functioning.
- However, the approval by Ghanaian authorities did not mean that donors or procurers of the vaccine such as **Gavi and UNICEF** would fund the vaccine.
- Experts have also stated that it was not clear whether the vaccine was cost-effective in comparison to other interventions such as **indoor residual spraying and insecticide-coated nets** which were not deployed sufficiently in malaria-endemic areas.

CSE Launches Coastal Cities' Coalition To Fight Marine Litter Crisis



Priority: **Medium**

Primary Source: Down to Earth

Prepp Prelims Booster: Environment

Prepp Mains Booster: Environmental pollution and degradation; GS 2 - Role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

Context:

- Recently, a Delhi-based **non-profit Centre for Science and Environment (CSE)** has launched a **coalition of coastal cities** to fight marine litter pollution across India.
- The **Coalition of Coastal Cities to Combat Marine Litter** was launched on April 19, 2023, at a workshop organized and spearheaded by CSE.

What is Marine litter?

- Marine litter is any persistent, manufactured or processed solid material discarded, disposed of, or abandoned in the marine and coastal environment.
- Plastic accounts for 90 percent of all the waste that ends up in the marine ecosystem.

Sources of Marine litter

- **Mismanagement of solid waste:** According to global research estimates **land-based mismanagement of solid waste** and the remaining 20 per cent is contributed by coastal settlements.
- These waste products are either not collected or are mismanaged. They eventually leak into the oceans through the stormwater drainage system, canals and small and big rivers.
- India's marine litter contains a sizable proportion of footwear trash, including soles, synthetic bases, and cloth bases.
- Other factors that contribute to marine litter include flood waters, untreated sewage discharged by municipalities, industrial and automotive trash produced near the coasts, and debris from shipbreaking yards.
- **Plastic waste:** Out of 460 Million Tonnes(MT) of plastic produced, 353 MT of plastic waste comes back as plastic waste of which 8 MT (2.26 per cent) is leaked into the marine ecosystem.
- As per Estimates, 15,434 tonnes of plastic waste is leaked into South Asian seas every day, accounting for a colossal 5.6 MT of plastic waste a year.

- The amount of marine debris in India is estimated to be 0.98 metric tonnes per kilometre of coastline, with a concentration of 0.012 kg per square metre.
- Major Indian rivers' tributaries discharge about 15–25% of their plastic waste into the ocean.
- **Tourism:** Tourism is one of the significant source of marine litter. Multi-layered, low-value plastics, polystyrene, plastic cutlery, carry bags, and cigarette butts make up the majority of the waste seen on beaches

Concerns

- **Marine debris can injure or kill marine and coastal wildlife:** Ingestion of marine litter by marine organisms results in an increased risk of diseases, altered hormone levels and death.
- **Bioaccumulation:** Toxins enter the food chain by piling up in individual species. This progressive accumulation of substances in an organism, such as pesticides or other toxins, is known as bioaccumulation.
- **Navigational safety and economic loss maritime industries:** In the short term Marine litter has an impact on public health (injuries, entanglement and navigational hazards) and in the long term it impacts the quality of life (recreational opportunities, loss of aesthetic value and loss of non-use value).
- **Safety:** Entanglement can also pose a serious threat to recreational users, particularly to swimmers, snorkelers and SCUBA divers who can become entangled in **submerged or floating debris, such as fishing nets and ropes.**
- One of the key challenges faced by the global marine ecosystem is abandoned, lost or discarded fishing gear (ALDFG) lost in deep seas are difficult to recover.
- According to the Food and Agriculture Organization, India loses about 15,276 tonnes of gillnets annually.
- In 2021, 58,000 kg of ghost nets were recovered from the beaches and the ocean bed.



Suggestions

- The **National Marine Litter Policy of India** announced in 2018 should be formulated and implemented.
- **Research:** A study on the characterization and distribution of marine litter and microplastic distribution should be conducted across the Indian coast.
- **Platform:** To ensure effective coordination and cooperation among coastal cities, **a forum should be created to facilitate cross-learning and build synergistic** associations between urban local bodies and local administrations located on the coast.
- **Planning:** A long-term vision strategy should be developed for promoting partnerships among coastal towns, cities and urban administration for the reduction of marine litter and the creation of sustainable waste management ecosystems.

- **Awareness:** Regular beach clean-up and awareness initiatives should be conducted instead of annual ones.
- Effective implementation of government guidelines on single-use plastic and solid waste management.

Way forward

- Since the problem has strong connections with the management of plastic waste on land, policies like the single-use plastic ban and extended producer responsibility need to be enforced stringently.
- Additionally, the enforcement mechanism developed and adopted at the state level would play a key role in converting policy into ground reality.

Jal Shakti Ministry Plans Network Of Groundwater Sensors To Monitor Quality, Contamination Levels



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: Groundwater

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

Context:

- The Ministry of Jal Shakti is working on an ambitious plan to deploy a vast **network of groundwater sensors** that would continuously relay **information on groundwater levels and the degree of contamination** down to the taluk level.
- At present, such information is only measured a few times a year and communicated via reports from the Central Groundwater Board.



Network Of Groundwater Sensors To Monitor Quality, Contamination Levels

- Around 16,000-17,000 **digital water level recorders** would be connected to **piezometers** in the wells under the new initiative.
- Piezometers measure **groundwater levels**, the recorders would transmit the **information digitally**.
- The CGWB wants to expand its network from the current 26,000 to around 40,000 during the next three years.
- India will have roughly 67,000 digitally recordable units to monitor groundwater dynamics when integrated with similar networks owned by other organizations, such as State bodies, and agricultural, and meteorology departments.
- The **National Aquifer Mapping Programme (NAQUIM)**, which is overseen by the CGWB, has, mapped the country's aquifers at a resolution of 1:50000 as of March.
 - An aquifer is a body of rock and/or sediment that holds groundwater.
- The NAQUIM study has so far covered a region of 25.15 lakh square km. The second phase of the program – expects to improve the resolution by five times in the country.

Significance of the move

- **Monitoring:** Establishing a network that would continuously measure groundwater quality, feed it into a centralized network such as that of the National Water Informatics Centre (NWIC) and available for monitoring would make groundwater visible much the same way as air quality.
- Those regions and States that are known to have groundwater contamination, for example, coastal salinity or excessive depletion, would be monitored more intensely for action by States.
- **Groundwater forecasts:** The government would be able to **provide groundwater forecasts to farmers** that would be useful for sowing, and updated advisories that can influence groundwater extraction policies by States.
 - Except for information on water flow governed by international treaties, most of this information would be publicly accessible.
 - The information will help in **informed decision-making**.
 - It will help in **monitoring pollutants** in water.
 - It will help the government to take appropriate steps to address the issue.
 - Given the dependence on agriculture on groundwater resources it would be immensely helpful.

Recent trends in Groundwater

- According to the latest **Ground Water Resource Assessment in 2022**, the total annual groundwater recharge in the country is estimated to be 437.60 **billion cubic meters (BCM)**.
- **Extraction:** The annual extractable groundwater resource is assessed at 398.08 BCM, with actual extraction of 239.16 BCM.
- On average, the overall groundwater extraction rate for the entire country is **approximately 60.08%**. Groundwater extraction **exceeding 70% is considered "critical"**.
- However, there are regions in Punjab, Haryana, Delhi, and Rajasthan where groundwater blocks have reported extraction rates exceeding 100%.
- **Rural areas:** According to reports over the years, groundwater is used for drinking and residential purposes in 85% of rural India.
- **Urban areas:** 40% of cities with a population of more than 10 lakh people have seen stable or declining water levels in monitoring wells.
- According to the CGWB, groundwater contamination is primarily "geogenic" (natural) and hasn't altered much over time.
- **Pollution:** However, nitrate pollution has been noted as a result of the use of nitrogenous fertilisers. Parts of 209 districts have recognised arsenic contamination, and sections of approximately 409 districts have fluoride contamination.

Steps taken by the government

- Water is a State subject, and the efforts to address the declining groundwater levels fall under States' mandate, however, the Central Government has taken a number of steps.
- **Jal Shakti Abhiyan (JSA):** Government of India is implementing Jal Shakti Abhiyan (JSA) in the country.
 - First JSA was launched in 2019 in water stressed blocks of 256 districts which continued during the years 2021 and 2022 also (across entire country both rural and urban areas) with the **primary aim to effectively harvest the monsoon rainfall through the creation of artificial recharge structures**, watershed management, recharge and reuse structures, intensive afforestation and awareness generation etc.
 - JSA for the year 2023 has been launched on 04 Mar 2023 with the theme **"Source Sustainability for Drinking Water"**.
 - **Amrit Sarovar Mission:** It was launched by the PM on 24th April 2022. The Mission is aimed at developing and rejuvenating 75 water bodies in each district of the country as a part of the celebration of Azadi ka Amrit Mahotsav.
 - **Atal Bhujal Yojana:** The Central Government is implementing Atal Bhujal Yojana with an outlay of Rs. 6,000 crore, in collaboration with States, in certain water-stressed areas of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.

- The primary aim of the scheme is **demand-side management through scientific means involving the local communities** at village levels leading to sustainable groundwater management in the targeted areas.
- **National Aquifer Mapping Program (NAQUIM):** National Aquifer Mapping and Management Programme (NAQUIM) is being implemented as a part of the Ground Water Management and Regulation scheme with the objectives to delineate and characterize the aquifers and develop plans for groundwater management.
- Central Ground Water Board (CGWB) is implementing 'National Aquifer Mapping and Management Programme' (NAQUIM) for aquifer mapping in the country including in areas which have recorded a high depletion of groundwater, in phases.
- **Model Building Bye Laws (MBBL):** Ministry of Housing & Urban Affairs (MoHUA) has formulated Model Building Bye Laws (MBBL), 2016 for the States/UTs, wherein adequate focus has been given on requirement of rainwater harvesting and water conservation measures.
- As per MBBL, all buildings having a plot size of 100 Sq.m. or, more shall mandatorily include the complete proposal of rainwater harvesting.

What Is LockBit Ransomware And Why Is It Targeting MacOS?



Priority: **Medium**

Primary Source: The Hindu

Prepp Prelims Booster: Science and technology

Prepp Mains Booster: Cyber Security

Context:

- Recently, it has been reported that Cybercriminals have developed new ransomware encryptors designed to target macOS devices, making this the first major ransomware operation to target Apple computers specifically.
- The new encryptors target older and newer Macs running on Apple Silicon.
- Earlier in January, the LockBit gang was reportedly behind a cyber-attack on U.K. postal services, causing international shipping to grind to a halt.



What is ransomware?

- Cybercriminals employ ransomware, a sort of malicious software, to infect computer systems by encrypting files and preventing users from accessing stored data.
- The owner is then asked for a ransom for the decryption key.

What is LockBit ransomware?

- LockBit ransomware was first reported in September 2019 and it is dubbed as the "abcd" virus, due to the file extension used when encrypting victim's files, the LockBit ransomware is designed to infiltrate victims' **systems and encrypt important files.**

- It is categorized as a "**cryptovirus**" because it **demands payment in cryptocurrency** in exchange for decrypting the files on the victim's device.
- Cryptocurrency is typically decentralized digital money designed to be used over the internet. Bitcoin, launched in 2008, was the first cryptocurrency.
- **Modus operandi:** The gang behind the LockBit ransomware reportedly maintains a **dark web portal** to recruit members and **release data of victims who refuse** to meet their demands, as part of their business model.
- LockBit ransomware has been used to attack businesses and organizations in the United States, China, India, Ukraine, and Indonesia.
- In addition, there have been reported attacks across all of Europe, particularly in France, Germany, and the UK.

Why is LockBit targeting macOS?

- According to a report from BleepingComputer, LockBit ransomware is now working on **creating encryptors specifically targeting Macs** for the first time.
- These encryptors **were created as a test**, rather than being fully operational ransomware.
- Experts believe that the gang behind LockBit is developing tools to target macOS as part of their strategy to increase **their financial gains from their operations.**

How does LockBit ransomware work?

- LockBit ransomware is a self-spreading malware that targets devices with access to an organization's intranet.
- It disguises its encryption files as .PNG files to avoid detection. Attackers use phishing and social engineering techniques to trick victims into revealing credentials or use brute force to gain access.
- PNG is short for Portable Network Graphic, a type of raster image file. It's a particularly popular file type with web designers because it can handle graphics with transparent or semi-transparent backgrounds.
- Once inside the system, the ransomware disables security programs and other recovery infrastructures, making data recovery impossible without the help of the LockBit gang.
- It then encrypts all system files and locks them, leaving behind ransom notes with threatening messages.
- Victims are forced to pay the ransom to the LockBit gang, who may sell the data on the dark web regardless of whether the ransom is paid or not.

What is the LockBit ransomware gang?

- It is considered the most prolific ransomware group ever. It operates on the **ransomware-as-a-service (Raas) model** and comes from a line of extortion cyberattacks.
- In this model, willing parties put down a deposit for use in a custom attack and make profits through the ransom payment.
- Though the exact location of the gang has not yet been determined, based on their attack patterns and tendency to stay away from Russian systems or Commonwealth of Independent States (CIS) nations, it is likely that they operate within these nations' borders and it avoids these countries to escape prosecution.

Impact of Ransomware

- **Loss of data:** temporary or permanent loss of sensitive or proprietary information,
- **Financial losses:** disruption to regular operations leads to financial losses.
- **Breach of Privacy:** Ransomware attacks could result in a personal data breach for individuals like social security numbers, credit card numbers, and other personal information.
- **Reputation:** potential harm to an organization's reputation.
- Paying the ransom does not guarantee the encrypted files will be released.

- Moreover, even if the files are decrypted, it does not necessarily mean that the malware infection itself has been completely removed from the system.

How to protect systems against ransomware attacks?

- **Use of strong passwords:** Use of strong and unique passwords with a mix of special characters that are **not easily guessed, coupled with multi-factor authentication**, can significantly enhance system security and prevent brute force attacks.
- **Regular training:** Conducting regular training exercises to educate employees on identifying and mitigating phishing attacks is also crucial.
- **Closing unused accounts:** Deactivating and closing old or unused user accounts is important to prevent them from becoming potential weak points in the security infrastructure.

Conclusion

- While there are no fool-proof ways of protecting against ransomware attacks, it is essential for organizations and individuals to have a comprehensive understanding of cybersecurity threats and vulnerabilities that may be exploited by cybercriminals.

Which agencies in India deal with cyber-attacks?

- **Computer Emergency Response Team (CERT-In):** The Computer Emergency Response Team (CERT-In), established in 2004, is the national **nodal organisation** that gathers, analyses, and disseminates information on cyberattacks; publishes guidelines, and advisories for preventive measures, forecasts, and alerts;
- It functions under the Ministry of Electronics and Information Technology (MeitY).
- **National Critical Information Infrastructure Protection Centre:** National Critical Information Infrastructure Protection Centre (NCIIPC), established in January 2014, is the **focal point for implementing** all protective measures for the country's critical information infrastructure.
- It must prevent "unauthorized access, modification, usage, disclosure, interruption, incapacitation, or distraction" to CIIs.
- The **National Security Council Secretariat**, coordinates with various agencies on cybersecurity issues at the national level.
- **National Cyber Coordination Centre (NCCC):** It is a multi-stakeholder cyber-security and e-surveillance agency.
- It is managed by the Union Ministry of Electronics and Information Technology's Indian Computer Emergency Response Team (CERT-In).
- It is India's first layer for cyber threat monitoring and all communication with the government, as well as the private service providers, will be monitored round the clock.

Vibrant Villages Programme



Priority: **Medium**

Primary Source: Indian Express

Prepp Prelims Booster: Vibrant Village Program

Prepp Mains Booster: Security challenges and their management in border areas

Context:

- Recently, Union Home Minister Amit Shah launched the 'Vibrant Villages Program' (VVP) in the border village of Kibithoo, Arunachal Pradesh.
- The constant threat along the country's border amid the ongoing standoff with China has led to a concerted push to upgrade infrastructure in the border areas.

What is the 'Vibrant Villages Programme'?

- Vibrant Villages Programme is a village development scheme that was **first announced in the 2022 Budget**.

- The program aims to provide comprehensive development of villages on the **border with China** and improvement in the **quality of life of people living in identified border villages**.
- The development in these villages **will help prevent migration, and thus also boost security**.
- In 2018, the Parliamentary Standing Committee made reference to the poverty, illiteracy, and lack of infrastructure and essential services in our border regions. The VVP aims to address all these issues.
- **States covered:** The Government has approved a **Centrally Sponsored Scheme 'Vibrant Villages Programme'** for the comprehensive development of the villages in 46 border blocks of 19 districts in 4 States and 01 UT viz.
- Arunachal Pradesh, Himachal Pradesh, Sikkim, Uttarakhand and Ladakh(UT) abutting the northern border.
- Around 662 villages have been selected for priority coverage in the first phase.
- **Allocation of funds:** About 1.42 lakh people will be covered in the first phase.
- The government has allotted Rs 4,800 crore for the scheme, which will be used to build infrastructure and create jobs in border regions.
- A total of Rs 2,500 crore would be allocated exclusively for the construction of road infrastructure.
- The total outlay is for financial years 2022-23 to 2025-26. There is a conscious effort to not overlap VVP with the Border Area Development Programme.

Objectives of the scheme:

- The scheme's goals include **identifying and enhancing** the border village's local, natural, human, and other resource-based **economic drivers**.
- Another objective of VVP is the development of growth hubs based on the **"Hub and Spoke Model"** by encouraging social entrepreneurship.
- Additionally, the initiative aims to **maximize tourism potential** by promoting local, cultural, traditional knowledge, and history in border regions.
- This will increase the **population's employment prospects** and, as a result, reduce migration.
- It is also intended to develop sustainable eco-agribusinesses based on the idea of **"One village-One product"** through community-based associations, cooperatives, SHGs, and other non-governmental organizations.
- The district administration will **prepare action plans with the help of Gram Panchayats** for the identified villages to ensure 100 percent saturation of Central and state schemes.
- The initiative calls for providing the border regions with access to potable water, 24-hour electricity, accessibility to all-weather roads, cooking gas, mobile service and internet service.
- Solar and wind energy, tourism centers, multipurpose buildings, and health and wellness facilities will all receive special consideration.
- **Strategic significance:** A populated village along the LAC, will help the army to be well-informed about any mischievous activities initiated by the Chinese army.

Significance of the Kibithoo village

- Kibithoo is one of Arunachal Pradesh's most distant circle headquarters, located at a height of 1305 meters above sea level, about 15 kilometres south of the LAC and 40 kilometers west of the **India-China-Myanmar tri-junction**.
- Kibithoo had also witnessed the 1962 India-China war and is one of five formally agreed-upon Border Personnel Meeting sites between the Indian and Chinese armies for frequent briefings and interactions aimed at defusing standoffs.

Why India Should Cut Down On Its Salt Intake

Priority: **Medium**



Primary Source: The Hindu

Prepp Prelims Booster: WHO

Prepp Mains Booster: Issues relating to development and management of Social Sector/Services relating to Health

Context:

- The World Health Organization recently released the '**Global Report on Sodium Intake Reduction**,' which shed light on the progress of its 194 member states towards reducing population sodium intake by 30% by 2025.

What is Sodium?

- Sodium (Na) is a chemical element that belongs to the periodic table's alkali metal group (Group 1).
- It is a very delicate silvery-white metal.
- It is the most prevalent alkali metal and the sixth most abundant element on Earth, accounting for 2.8 percent of the Earth's crust.
- It depicts an exploding interaction with water.
- It is abundant in nature in compounds, particularly common salt—sodium chloride (NaCl), which makes the mineral halite and accounts for approximately 80% of the dissolved constituents of seawater.



CABINET DECISIONS
15 FEBRUARY 2023

VIBRANT VILLAGES PROGRAMME

Benefits:

- Inclusive growth of villages on northern border
- Will improve the quality of life of people
- Will reverse the outmigration adding to improved security

2/2

Issues with excess Sodium Consumption

- When consumed in excess, the apparently innocuous act of consuming salt can have hazardous consequences. Excess sodium consumption adds to the increase in hypertension, cardiac disease, and stroke.
- Dangers frequently hide unnoticed, necessitating immediate attention and a reconsideration of our dietary choices.
- The typical Indian consumes more than double the physiological requirement and far surpasses the World Health Organization's (WHO) suggested daily dose of <5 g of salt for adults.

Why is it critical for India to decrease its salt intake?

- Empirical data shows a significant link between diminished sodium consumption and lower blood pressure. Reducing sodium consumption by 1 gram per day (2.5 grams of salt) results in a 5 mm Hg drop in

systolic blood pressure (BP) for people aged 55, resulting in an estimated 22% decrease in stroke incidence and a 16% decrease in myocardial infarction incidence.

- This data indicates that salt reduction is a cost-effective and feasible strategy to avoiding cardiovascular disease.
- Elevated blood pressure is a major risk factor for cardiovascular disease, the leading cause of death globally. It was responsible for roughly 54% of strokes and 47% of ischemic heart disease worldwide in 2001. This figure has risen since then.
- The enormous fiscal effect of cardiovascular disease on low- and middle-income nations (LMICs) is projected to be \$3.7 trillion between 2011 and 2025 due to early death and impairment. This number reflects a worrisome 2% of the GDP of LMICs.
- The World Economic Forum predicts that coronary illness will cost the Indian economy more than \$2 trillion between 2012 and 2030. This emphasizes the critical need for effective measures to reduce the fiscal and health effects of cardiovascular disease in LMICs.

Sodium Country Score

- India has implemented optional steps to reduce sodium in the food supply and encourage healthier dietary options.
- The WHO assigned each member state a sodium score varying from 1 (least implementation) to 4 (highest implementation) based on variables such as the amount of sodium reduction implementation and other associated measures.
- India's score of 2 indicates the existence of at least one optional policy, emphasizing the need for more stringent measures to handle this health issue.

Significant challenges in India

- Cardiovascular illnesses have surfaced as the leading source of death and morbidity. The age-adjusted coronary disease death rate has increased by 31% in the last 25 years. In India, hypertension has been found as the main risk factor for these diseases.
- According to statistics from the National Family Health Survey-5, hypertension is more common in males aged 15 and up than in women of the same age. Hypertension is more prevalent in southern states, especially Kerala, while Punjab and Uttarakhand in the north also have high incidence rates.
- The pre-hypertensive population, characterized by systolic blood pressure levels of 120-139 mmHg or diastolic blood pressure levels of 80-89 mmHg, deserves special consideration.
- Pre-hypertension affects 38.5% of women and 49.2% of males nationally, with a greater prevalence in the northern states.
- There is adequate evidence to conclude that Indians with blood pressure values between 130 and 139/80-89 mmHg experience substantial dangers of cardiovascular disease, stroke, and early death.
- Many Indians who were previously classified as pre-hypertensive are now included in the recently defined stage-I hypertension by American standards.
- According to the 2020 Report on Medical Certification of the Cause of Death, cardiovascular system illnesses account for 32.1% of all recorded fatalities, with hypertension being a significant risk factor.

Government Initiatives

- The Union government has launched a number of volunteer programs to encourage Indians to reduce their sodium intake.
- The Food Safety and Standards Authority of India (FSSAI) has launched the 'Eat Right India' campaign, which aims to change the country's food system in order to guarantee safe, nutritious, and sustainable nourishment for all residents.
- In order to achieve this objective, the FSSAI started the 'Aaj Se Thoda Kam' social media campaign.
- However, the sodium consumption of the typical Indian stays dangerously high. Evidence suggests that the typical daily intake is around 11 grams.

Conclusion

As existing methods are ineffective, India requires a comprehensive national plan to reduce salt consumption. A multi-pronged strategy involving consumers, business, and government is critical. Collaboration between state and federal administrations is critical in combating hypertension, which is frequently caused by a high sodium consumption.

State of Global Climate 2022'



Priority: Medium

Primary Source: The Hindu

Prepp Prelims Booster: State of Global Climate

Prepp Mains Booster: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclones etc., 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; GS3 - Environment

Context:

- Recently, in a new report 'State of Global Climate 2022', the **World Meteorological Organization (WMO) discovered that the world's sea level is rising at an unprecedented rate**, with potentially severe effects for weather, agriculture, the current groundwater issue, and socioeconomic inequality.

What is the Global State of the Climate Report?

- The **Global State of the Climate Report** is an annual report published by the World **Meteorological Organization (WMO)**.
- The 2022 Report was produced as part of the most recent assessment cycle of the sixth IPCC Assessment report.
- The Report described the current state of the world's climate on the basis of key climate indicators and reporting on adverse events and their impacts.

State of Global Climate 2022

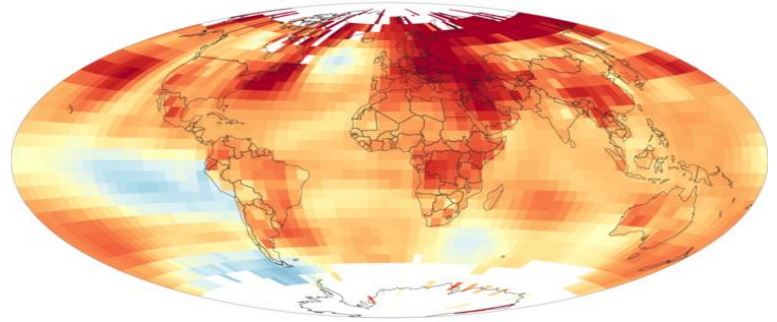
- The report titled 'State of the Global Climate 2022' was released recently.
- Along with accelerating sea-level rise, it emphasized a consistent rise in global temperatures, record-breaking increases in greenhouse gas concentrations, glacier loss, sustained drought-like conditions in East Africa, record rainfall in Pakistan, and unprecedented heat waves that hit Europe and China in 2022.
- Droughts, floods, and heatwaves wreaked havoc on communities throughout the globe, costing billions of dollars.
- The amount of Antarctic sea ice plummeted to its lowest point on record, while melting on several European glaciers was practically off the charts.
- The State of the Global Climate 2022 depicts the planetary scale changes produced by record amounts of heat-trapping greenhouse gases on land, in the ocean, and in the atmosphere.
- Despite the cooling effect of a La Nina event during the last three years, global temperatures from 2015 to 2022 were the eighth hottest on record.
- Melting glaciers and sea level rise, which hit new highs in 2022, will continue for thousands of years.
- While sea-level rise is one of multiple interconnected calamities, it deserves special attention for the specific problems it may cause, particularly in coastal regions, societies who rely on marine life, and its capacity to cause land loss.

Rise in the Sea

- The pace of **Global Mean Sea Level (GSML)** increase has doubled between the first decade of satellite record and the last.
- Scientists have been detecting sea-level rise with satellite altimeters since the 1990s.
 - These devices emit radar pulses to the sea surface and monitor the time it takes for them to return as well as the change in intensity.
 - The higher the sea level, the faster and stronger the return signal.
- According to the WMO research, sea level has risen throughout the three decades for which satellite altimeter data is available between 1993-2022.

- However, the rate of sea-level rise increased from 2.27 mm/year in 1993-2002 to 4.62 mm/year in 2013-2022.

RECENT TEMPERATURE TRENDS (1993-2022)



1993-2022

Change in temperature (°F/decade)
-1 0 1

NOAA Climate.gov
Data: NCEI

What is Global Mean Sea Level (GSML)?

- Global mean sea level (GSML) is the average height of the ocean's surface. It is principally caused by two phenomena connected to global warming: the extra water from melting land-based ice sheets and glaciers, and the expansion of saltwater as it heats.
- Global mean sea level is an important climate indicator because it shows how the ocean is rising and how much land ice is melting. Global sea levels have been increasing for decades as a result of a warmer environment.

Causes for the rise in sea level

- Ocean warming, glacier and ice sheet ice loss, and changes in terrestrial water storage are all factors. According to the report, glacier and ice sheet loss contributed 36% of the GSML rise from 2005 to 2019.
- Ocean warming, the phenomenon of increasing mean ocean temperatures, contributed 55%, whereas changes in terrestrial water storage contributed less than 10%.
- As carbon dioxide and other greenhouse gases increase, 90% of the 'additional' heat is trapped in the seas. As a result, the oceans warm. As the water warms, it expands thermally, causing the GSML to rise.
 - The **Ocean Heat Content (OHC)** is one indicator of ocean warming.
 - According to the report, OHC measurements touched a new record in 2022.
- As per the report, the Earth's ice layer, known as the cryosphere, has diminished. The cryosphere comprises the Arctic and Antarctic regions, glaciers, the Greenland and Antarctic ice sheets, seasonal snow cover, and permafrost (mass of land that remains below 0°C for at least two consecutive years).

Issues with rising sea-level

- Changes in land cover:** The faster rate will result in changes in land cover, i.e., "what will be land and what will be sea" in the future. Coastal populations will suffer an acute shortage of land for human use, as rising oceans absorb more of the land cover, particularly in coastal locations.
 - Because of the land shortage, individuals who are better off will be able to adapt better than marginalized groups, leading to a rise in socioeconomic inequities among coastal residents.
- Cyclones:** These are known to form on the open oceans. As the GSML continues to rise along with the rise in ocean temperatures, the chances of cyclones increase, affecting coastal towns and posing significant economic liabilities for tropical nations with high population densities such as India and South Africa.
 - South Africa was hit by five cyclones in less than two months in 2022, displacing hundreds of thousands of people.

- **Water Crisis:** As the GSML rises, more seawater may seep into the earth, causing the normally freshwater groundwater to become increasingly salty. This, in turn, has the potential to worsen water problems in coastal areas as well as agriculture in neighboring regions.

How will sea-level rise influence societies?

- The coastal habitats might be completely altered.
- For example, in the Sunderbans delta in West Bengal, the world's biggest mangrove region, increasing sea levels and coastal erosion caused by loss of land and silt from coastal areas have drowned additional islands, forcing people of local communities to migrate.
- As the lives of coastal communities, including their economic activities, are inextricably linked with the coastal ecosystem, changes in the coastal ecosystem as a result of GSML rise – particularly when they occur faster than rehabilitative policies and laws can catch up, will endanger the socioeconomic stability of these communities.
- A combination of these variables has been recorded as increasing child trafficking in the Sunderbans region.

What are the efforts to mitigate these effects?

- **Data on Climate Change:** It is critical that reports like the World Meteorological Organization's 'State of the Global Climate 2022' continue to develop and collect data on climate change.
- **Reduce greenhouse gas emissions:** The main cause of rising sea levels is the increase in greenhouse gas emissions. To address this, we need to reduce our dependence on fossil fuels and switch to cleaner and renewable sources of energy.
- **Adaptation measures:** Coastal communities should develop adaptation measures to cope with the effects of rising sea levels. These measures could include building seawalls, relocating settlements to higher ground, and developing early warning systems for flooding.
- **Promote sustainable agriculture:** To protect agriculture from the impacts of sea-level rise, sustainable agriculture practices should be promoted. This could include promoting crop varieties that are more resilient to flooding and developing alternative irrigation methods.
- **Education and awareness-raising campaigns:** It can help raise awareness of the risks of rising sea levels and encourage individuals and communities to take action to mitigate their effects.
- **International cooperation:** Rising sea levels are a global issue, and therefore require international cooperation to address effectively. Countries should work together to reduce greenhouse gas emissions and develop adaptation strategies to mitigate the impacts of rising sea levels.

Places in News

India

Kuno National Park

Reason to be in news: Recently, the Madhya Pradesh State Forest Department requested the Union Government for an alternate site for the cheetahs that were housed at Kuno National Park. **The Kuno National Park** is a national park located in the Vindhya hills of Sheopur district, Madhya Pradesh. It acquired its name from the Kuno River, a tributary of the Chambal that flows through the park. It was established in 1981 as a wildlife sanctuary and was designated as a national park in 2018.



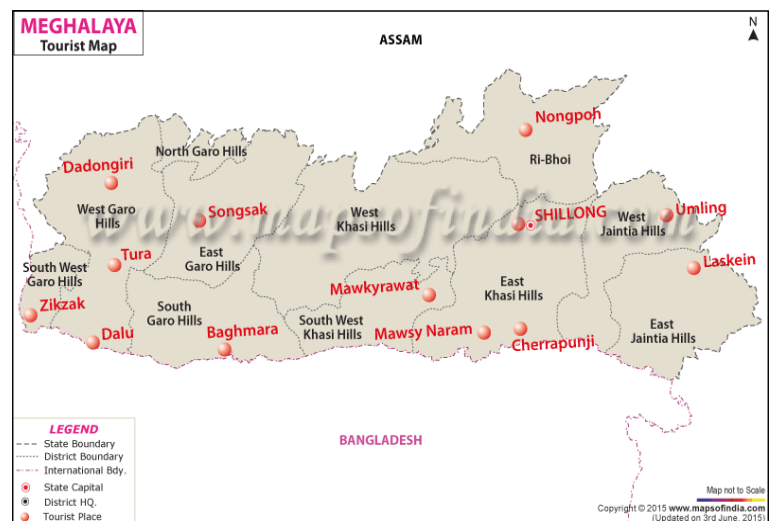
Zojila pass

Reason to be in news: Recently, the Union Road Transport and Highways Minister Nitin Gadkari inspected the under-construction Zojila tunnel. The tunnel will establish **all-weather connectivity** between the Union Territories of Ladakh and Jammu and Kashmir. **Zojila pass** is the high mountain pass at an elevation of 11,578 feet above sea level, located in Kargil district of Ladakh. It is the strategic link connecting Ladakh to Srinagar and the rest of India.



Siju Caves

Reason to be in news: Recently, a new species of frog has been discovered in the Siju caves of Meghalaya by researchers from the Zoological Society of India. The **Siju cave** is a natural limestone cave located in the South Garo Hills district, Meghalaya.



Gandhisagar Wildlife Sanctuary

Reason to be in news: It was recently announced that Gandhisagar Sanctuary will be established as a second habitat for cheetahs. **Gandhisagar Wildlife Sanctuary** is located in northern Madhya Pradesh, with one of its limits extending along the Rajasthan border. The river Chambal runs through the sanctuary.



Talle Wildlife Sanctuary

Reason to be in news: A new moth species (genus *Piarosoma*) has been identified in Talle WLS in Arunachal Pradesh by researchers. **Talle Wildlife Sanctuary** is located between the Subansiri, Sipu, and Pange rivers and is surrounded by thickly wooded mountains varying in elevation from 2,000 to 4,000 meters.

World

Australia

Reason to be in news: Recently, Australia's Minister for Trade and Tourism, stated that Australia prefers to have a diversified market for its lithium exports, including India, rather than being dependent solely on the United States. **Australia** is a sovereign country comprising the Australian continent's mainland, the island of Tasmania, and other smaller islands. Australia is the largest country in Oceania and the world's sixth largest.



Pakistan

Reason to be in news: A Central government scheme to provide financial assistance of Rs.5.5 lakh per family to over 5,000 Hindu and Sikh families who migrated to India from Pakistan's West Punjab after the 1947 partition has been extended until March 31, 2024, amid several issues ranging from a lack of documents to a tepid response from families. **Pakistan**, formally the Islamic Republic of Pakistan, is a nation in South Asia. Pakistan is India's northern neighbor, sharing borders with Jammu and Kashmir, Punjab, Rajasthan, and Gujarat.



Azerbaijan

Reason to be in news: Recently, the World Health Organization (WHO) has designated Azerbaijan and Tajikistan as malaria-free for eliminating the Anopheles mosquito-borne illness in their regions. **Azerbaijan**, the nation and former Soviet republic, is bounded by the Caspian Sea and Caucasus Mountains, which span Asia and Europe.



Japan

Reason to be in news: The Japanese Prime Minister, Fumio Kishida, visited India in March 2023 during which he engaged on global and bilateral issues, with an emphasis on cooperation between the G-7 and the G-20. **Japan** is an East Asian island country. It is located in the northwest Pacific Ocean and is bounded on the west by the Sea of Japan, continuing north from the Sea of Okhotsk to the East China Sea, Philippine Sea, and Taiwan in the south.



Scotland

Reason to be in news: British Prime Minister Rishi Sunak denied a request from Humza Yousaf, the new First Minister of Scotland and leader of the ruling Scottish National Party (SNP), to conduct a second referendum on Scotland's independence from the United Kingdom. Scotland is a nation in the United Kingdom. Mainland Scotland, which occupies the northern third of the territory of Great Britain, has a 96-mile (154-kilometer) boundary with England to the southeast and is otherwise bounded by the Atlantic Ocean to the north and west, the North Sea to the northeast and east, and the Irish Sea to the south.



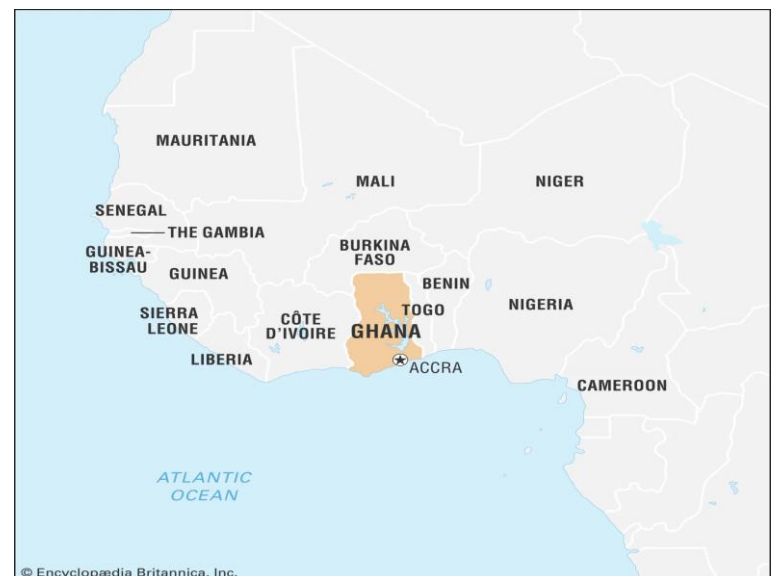
Finland

Reason to be in news: Recently, conservative parties took the lead in elections in Finland denying left-wing Prime Minister Sanna Marin another term as the country joined NATO. Finland has joined NATO, the world's largest security alliance over concerns about Russian actions in Ukraine and fears of a repeat of these actions in Finland. **Finland** is a Northern European nation bordering Sweden, Norway and Russia. Its capital, Helsinki, occupies a peninsula and surrounding islands in the Baltic Sea.



Ghana

Reason to be in news: Recently, Ghana became the first country to approve a vaccine developed by Oxford University to tackle malaria in children. Ghana, officially the Republic of Ghana, is a country in West Africa. It abuts the Gulf of Guinea and the Atlantic Ocean to the south, sharing borders with Ivory Coast in the west, Burkina Faso in the north, and Togo in the east.



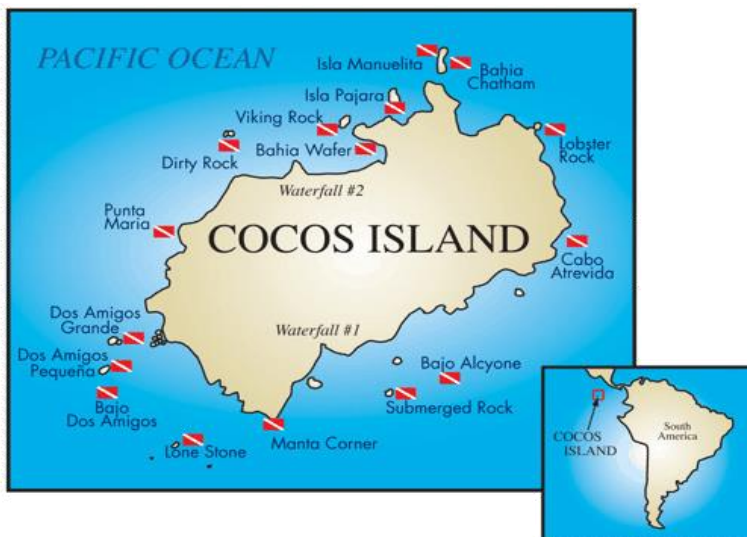
Saudi Arabia

Reason to be in news: Saudi Arabia, a country whose foreign policy has historically revolved around Iran, is now reaching out to old adversaries, having discussions with new opponents, and attempting to strike a balance between great powers, all while attempting to reform its domestic economy. **Saudi Arabia**, formally the Kingdom of Saudi Arabia, is a nation in Western Asia. It occupies the majority of the Arabian Peninsula and has a land area of around 2,150,000 km², making it the fifth-biggest country in Asia, the second-largest in the Arab world, and the largest in Western Asia and the Middle East.



Coco Islands

Reason to be in news: Recently, the construction of a military facility on Coco Islands in Myanmar and a proposed remote satellite receiving ground station system in Sri Lanka, both coming up with Chinese help, have raised concerns of India regarding possible surveillance across the region. **The Coco Islands** are a small group of islands in the northeastern Bay of Bengal. They are part of the Yangon Region of Myanmar.



Sudan

Reason to be in news: Recently, the UN Envoy to Sudan revealed that more than 185 people have been killed and thousands wounded in Khartoum following clashes between the military and the RSF. The clash between the military and the RSF in the aftermath of the 2021 coup concerned differences in how the RSF would be integrated into the army. **Sudan** is a country in Northeast Africa. It borders the Central African Republic to the southwest, Chad to the west, Egypt to the north, Eritrea to the northeast, Ethiopia to the southeast, Libya to the northwest, South Sudan to the south and the Red Sea.



Yemen

Reason to be in news: Recently, hundreds of prisoners captured during the war in Yemen were reunited with their families between April 14 to 16 amid diplomatic efforts to halt the conflict. The main warring sides in Yemen are the Iran-backed Houthis and the pro-Yemen government, Saudi-led coalition. **Yemen** is a country in Western Asia. It is situated on the southern end of the Arabian Peninsula, and borders Arabia to the north and Oman to the northeast and shares maritime borders with Eritrea, Djibouti and Somalia.



Africa

Reason to be in news: Recently, after the outbreak of combat in Sudan's capital Khartoum, concerns have been raised about the involvement of the **Wagner group**, which has been engaged in African nations for years. **Africa** is the world's second-largest continent (after Asia), accounting for around one-fifth of the total land surface. The Atlantic Ocean borders the continent on the west, the Mediterranean Sea on the north, the Red Sea and the Indian Ocean on the east, and the mingled waters of the Atlantic and Indian oceans on the south.



Vanuatu

Reason to be in news: The United States General Assembly (UNGA) has approved a resolution sponsored by Vanuatu to seek an opinion from the International Court of Justice (ICJ) on what legal duties states have to safeguard climatic systems and persons affected by climate change. **Vanuatu** is a nation in the southwestern Pacific Ocean that consists of a chain of 13 major and several minor islands located about 500 miles (800 km) west of Fiji and 1,100 miles (1,770 km) east of Australia.



Nagorno-Karabakh

Reason to be in news: Azerbaijan has built a checkpoint at the Lachin corridor, the sole land route between Armenia and Nagorno-Karabakh. **Nagorno-Karabakh**, often known as Artsakh by Armenians, is a landlocked mountainous region in the South Caucasus.

