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Summary of The Hindu & The Indian Express along with News
Background

POLITY & GOVERNANCE

Dry and Wet Leasing of Aircraft

Relevance: Prelims & Mains Paper II



Why in news?	What is Wet leasing?	Why leasing?
<ul style="list-style-type: none">- In efforts to boost international air traffic, the civil aviation ministry has allowed Indian airlines to take aircrafts on wet lease for up to one year. The ministry has allowed the wet leasing for a year as opposed to the six months permitted so far.- Dry leasing was already allowed for up to 12 months, with the option to extend the contract for 12 months another year.	<ul style="list-style-type: none">- Wet leasing means taking the plane along with operating crew and engineers, while dry leasing refers to taking only the aircraft on rent.- The technical term for wet leasing is ACMI which stands for aircraft, crew, maintenance and insurance. These are the aspects of the operation that the wet lease airline takes care of.- Operations of an aircraft on wet lease are more difficult for the Directorate General of Civil Aviation (DGCA) to monitor, which is why it is allowed for shorter durations.	<ul style="list-style-type: none">- About half the planes used by airlines around the world are not owned but leased.- Airlines and aircraft operators prefer leasing planes in order to avoid massive lump sum payments that buying them would entail, and to quickly increase capacity, perhaps temporarily, on certain routes or sectors.

AAP set to become a 'national party' in India

Relevance: Prelims & Mains Paper II; Governance



Why in news?

- The **Aam Aadmi Party (AAP)** won 5 seats in Gujarat, but its vote-share was close to 13%,
- It is **on track to be recognised as a national party by the Election Commission of India (ECI)**.

What is a national party?

- The name suggests that a national party would be one that has a **presence 'nationally'**, as opposed to a **regional party whose presence is restricted to only a particular state or region**.
- A **certain stature** is sometimes associated with being a national party, but this does not necessarily translate into having a lot of national political clout.
- Some parties, despite being dominant in a major state — such as the DMK in Tamil Nadu, BJD in Odisha, YSRCP in Andhra Pradesh, RJD in Bihar, or TRS in Telangana — and having a major say in national affairs, remain regional parties.

Existing National Parties

- As of now, the ECI has recognised **eight parties** as national parties — the **BJP, Congress, Trinamool Congress, CPI(M), CPI, Nationalist Congress Party (NCP), Bahujan Samaj Party (BSP), and Conrad Sangma's National People's Party (NPP)**, which was **recognised in 2019**.
- After the official results of the Gujarat elections, **AAP has become the ninth party to be recognised as a national party**.

National Party Criteria

- The ECI has laid down the **technical criterion** for a party to be recognised as a national party.
- A party **may gain or lose national party status** from time to time, depending on the fulfilment of these laid-down **conditions**.
- As per the **ECI's Political Parties and Election Symbols, 2019 handbook**, a political party would be considered a national party if:
 - i. it is '**recognised**' 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**.

State Party Criteria

- To be recognised as a state party, a party needs:
 - 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
 - iii. at least **one MP for every 25 members or any fraction allotted** to the state in the Lok Sabha; or
 - iv. have at least **8% of the total valid votes in the last Assembly election or Lok Sabha election** from the state.

How does AAP Qualify

- The AAP is in power with big majorities — and very large vote shares — in **Delhi** and **Punjab**. In the **Goa Assembly elections** held in March, it received **6.77%** of the vote.
- It **now required 6% of the vote in the Assembly elections** in either Himachal or Gujarat to be recognised in a fourth state — which would qualify it for recognition as a national party.
- While the AAP got only 1% of the vote in Himachal. Its **almost 13% vote in Gujarat** is more than double what it required to be recognised as a state party there.

Maharashtra-Karnataka border dispute

Relevance: Prelims & Mains Paper II; Governance

Beginning of Dispute

- Ever since the **State Reorganisation Act** was passed by the Parliament in 1956, Maharashtra and Karnataka have differences over the inclusion of some towns and villages along the state border.
- The Act was based on the findings of the Justice **Fazal Ali Commission**, which was **appointed in 1953** and submitted its report two years later.

Centre's response

- Amid protests and pressure from Maharashtra, the **Union government set up a commission under retired Supreme Court judge Justice Meharchand Mahajan on October 25, 1966.**
- The report was expected to be a binding document for both states and put an end to the dispute.
- The commission submitted its report in August 1967, where it recommended merging 264 towns and villages of Karnataka (including Nippani, Nandgad and Khanapur) with Maharashtra, and 247 villages of Maharashtra (including South Solapur and Akkalkot) with Karnataka.
- Though the **report was tabled in 1970 in the Parliament**, it was not taken up for discussion.



Winter tensions in Belagavi

- In 2007, Karnataka started building the Suvarna Vidhana Soudha (Legislative Assembly) in Belagavi to assert its control over the region.
- The building was inaugurated in 2012, and the winter legislature sessions are held here annually.
- The border issues springs up every time the Karnataka Assembly session is held in Belagavi.

Legal issues in Court

- Maharashtra approached the Supreme Court in 2004, challenging the State Reorganisation Act.
- It demanded 865 villages and towns from five Karnataka districts to be merged with the state. The five districts are Belagavi, Karwar, Vijayapura, Kalaburagi and Bidar.
- However, almost two decades after the petition, its maintainability remains challenged.
- Karnataka has resorted to Article 3 of the Indian Constitution to argue that the Supreme Court does not have the jurisdiction to decide the borders of states, and only Parliament has the power to do so.
- Maharashtra has referred to Article 131 of the Constitution, which says that the Supreme Court has jurisdiction in cases related to disputes between the Union government and states.

Control over NDTV

Relevance: Prelims & Mains Paper II; Governance



Why in news?	Stake acquired in NDTV	Open Offer- Meaning
<ul style="list-style-type: none">- Amid the Adani Group's open offer to acquire New Delhi Television Limited (NDTV), Prannoy Roy and Radhika Roy have resigned as directors on the board of RRPR Holding Private Limited (RRPRH) with effect from November 29.- Prannoy Roy is the Chairperson of NDTV and Radhika Roy is an Executive Director.- The RRPRH is named after the two Roys.	<ul style="list-style-type: none">- On August 23, Gautam Adani-led Adani Group, a conglomerate with diverse business interests, acquired 29.18 per cent stake in television channel NDTV Ltd, and said it would launch an open offer as required by the Securities and Exchange Board of India (SEBI) to buy another 26 per cent in the company.- On November 22, the Adani Group launched its open offer, which is to remain open until December 5, 2022.	<ul style="list-style-type: none">- According to the SEBI (Substantial Acquisition of Shares and Takeovers) Rules, an open offer is made by the acquirer to the shareholders of the target company inviting them to tender their shares at a particular price, and is triggered if an acquirer holds more than 25 per cent of the public shareholding in the company.

How did takeover begin?

- In 2009 and 2010, VCPL gave an interest-free loan of Rs 403.85 crore to RRPR Holding Pvt Ltd, owned by the Roys.
- Against this loan, RRPR issued **warrants** to VCPL, which entitled VCPL **to convert them into a 99.9 per cent stake in RRPR**.
- Adani was not in the picture at the time. In order to extend the loan to RRPR, VCPL had raised funds from Reliance Strategic Ventures, a wholly owned subsidiary of Mukesh Ambani-led Reliance Industries Ltd.
- On August 23, the Adani Group announced that AMG Media Networks Ltd, a subsidiary of its flagship Adani Enterprises Ltd, had bought VCPL for Rs 113.75 crore. The loan had not been repaid by then.
- Without any discussion with NDTV or its founder-promoters, a notice has been served upon them by VCPL, stating that it (VCPL) has exercised its rights to acquire 99.50% control of RRPR, the promoter-owned company that owns 29.18% of NDTV.

Present Position

- The Roys directly hold 32.36% in the company; Prannoy's stakes are 15.94%, while Radhika holds 16.32%.
- RRPL Holding, the promoter group vehicle of NDTV, holds 29.18 per cent stake in NDTV, which is being taken over by the Adani group.
- **If the Adanis manage to get the required 26 per cent stake through its open offer, the group's total stake will go up to 55.18 per cent, enabling it to take management control of the target company (NDTV).**
- If it fails to get a 50 per cent stake, they have the option to buy shares from other institutional investors.

Uttarakhand passes Bill giving 30% job quota to women

Relevance: Prelims & Mains Paper II; Governance



Why in news?

- The Uttarakhand Assembly passed a Bill to provide 30 per cent horizontal reservation to local women in state government services.
- The Uttarakhand Public Services (Horizontal Reservation for Women) Bill, 2022 has now been sent for the Governor's signature.
- In July 2006, Uttarakhand issued a government order to provide 30 per cent horizontal reservation to women domiciled in the state, irrespective of their caste, creed, place of birth, place of origin, and social status.
- The bill seeks to give legislative status to the Government order passed in 2006.

What does the Bill say?

- In the Bill's statement of objects and reasons, the government says that due to Uttarakhand's geographical structure, people living in remote areas lead a difficult life, especially the women.
- Because of this, their standard of living is below the women of other states. Also, women have very little representation in the state's public services.
- The Bill proposes to plug these gaps by providing women with 30 per cent horizontal reservation in public services and posts, in addition to the existing quotas applicable in the state.

What is horizontal reservation?

- In December 2020, the Supreme Court clarified the position of the law on the interplay of vertical and horizontal reservations.
- A decision by a two-judge Bench in the case of Saurav Yadav versus State of Uttar Pradesh dealt with issues arising from the way different classes of reservation were to be applied in the selection process to fill posts of constables in the state.
- In simple terms, while a **vertical reservation applies separately for each of the groups** specified under the law, the **horizontal quota is always applied separately to each vertical category, and not across the board.**

Example

- **Reservation for Scheduled Castes, Scheduled Tribes, and Other Backward Classes is referred to as vertical reservation.**
- **Horizontal reservation refers to the equal opportunity provided to other categories of beneficiaries such as women, veterans, the transgender community, and individuals with disabilities, cutting through the vertical categories.**
- For example, if women have 50 per cent horizontal quota, then half of the selected candidates will have to necessarily be women in each vertical quota category — i.e., half of all selected SC candidates will have to be women, half of the unreserved or general category will have to be women, and so on.

Initiatives taken by the government to boost manufacturing

Relevance: Prelims & Mains Paper II; Governance



- Government of India has undertaken several schemes/initiatives to promote manufacturing sector.
- The **growth of manufacturing sector** was adversely affected due to COVID-19 pandemic, which has shown **positive growth in double digits (11.8%) in the Financial Year 2021-2022**.
- Schemes undertaken to promote manufacturing sector are as follows:

1. Make in India initiative: 'Make in India' is an initiative which was launched on 25th September **2014** to **facilitate investment, foster innovation, build best in class infrastructure and make India a hub for manufacturing, design and innovation**.

It was one of the unique single, **vocal for local initiative** that promoted India's manufacturing domain to the world.

'Make in India' initiative is **not the state/district/city/area specific initiative, rather it is being implemented all over the country**.

2. Industrial Corridor Development

Programme: In order to accelerate growth in manufacturing, Government of India (GoI) has adopted the strategy of developing Industrial Corridors in partnership with State Governments.

As part of National Industrial Corridor Program, **11 Industrial Corridors are being developed** in 4 phases.

3. National Single Window System:

The setting up of National Single Window System (NSWS) was announced in the Budget 2020-21 with the objective to provide “end to end” facilitation and support to investors, including pre-investment advisory, provide information related to land banks and facilitate clearances at Centre and State level.

Large number of States/UTs Single Window Systems have been linked with the NSWS Portal thereby providing access to approvals of these States/UTs to be applied through NSWS.

4. PM Gati Shakti National Master Plan (NMP):

PM Gati Shakti National Master Plan (NMP), a GIS based platform with portals of various Ministries /Departments of Government, was launched in October, 2021.

It is a transformative approach to facilitate data-based decisions related to integrated planning of multimodal infrastructure, thereby reducing logistics cost.

5. National Logistics Policy:

National Logistics Policy (NLP) was launched on 17th September 2022, that aims to lower the cost of logistics and lead it to par with other developed countries.

It is a comprehensive effort to address cost inefficiency by laying down an overarching interdisciplinary, cross-sectoral, and multi-jurisdictional framework for developing entire logistics ecosystem.

6. Production Linked Incentive scheme: Keeping in view India's vision of becoming 'Atmanirbhar', **Production Linked Incentive (PLI) Schemes for 14 key sectors** have been announced to enhance India's Manufacturing capabilities and Exports.

7. Indian Footwear and Leather Development Programme (IFLDP): The Central Government has approved the Central Sector Scheme 'Indian Footwear and Leather Development Programme (IFLDP)' in **January, 2022 with an allocation of Rs.1700 crore till 31.03.2026** or till further review, whichever is earlier.

8. PM Mega Integrated Textile Region and Apparel (PM MITRA): In order to have world-class industrial infrastructure which would **attract cutting age technology and boost FDI and local investment in the textiles sector**, Ministry of Textiles issued notification to set up **7 Mega Integrated Textile Region and Apparel (PM MITRA) Parks** with a total outlay of Rs. 4,445 crore.

These parks will offer an opportunity to **create an integrated textiles value chain** right from spinning, weaving, processing/dyeing and printing to garment manufacturing at one location.

TRAI's proposal to help callers identify spammers

Relevance: Prelims & Mains Paper II; Governance



TRAI's Proposal

- Telecom Regulatory Authority of India (TRAI) floated a consultation paper seeking comments about the potential introduction of Calling Name Presentation (CNAP).
- The feature would provide the called individual with information about the calling party (similar to 'Truecaller' and 'Bharat Caller ID & Anti-Spam'). However, as per TRAI, crowd-sourced data used by these apps may not be reliable.
- The idea is to ensure that telephone subscribers are able to make an informed choice about incoming calls and curb harassment by unknown or spam callers.
- Comments to the consultation paper are invited until December 27.

What is the need?

- Existing technologies present the number of the calling entity on the potential receiver's handset.
- There have been rising concerns about robocalls (calls made automatically using IT-enabled systems with a pre-recorded voice), spam calls and fraudulent calls.
- Truecaller's '2021 Global Spam and Scam Report' revealed that the average number of spam calls per user each month (in India) stood at 16.8.
- Smartphone users, at present, rely on in-built features (such as 'silence unknown numbers' on Apple phones) or third-party apps to mark and tackle spam calls.

Court vacations

Relevance: Prelims & Mains Paper II; Governance



Why in news?	Vacations in Courts	Important Cases
<ul style="list-style-type: none">- Union Law Minister Kiren Rijiju criticised the judiciary for taking long vacations even as pending cases rise to record levels every year.	<ul style="list-style-type: none">- The Supreme Court has 193 working days a year for its judicial functioning, while the High Courts function for approximately 210 days, and District courts for 245 days.- High Courts have the power to structure their calendars according to the service rules.- The Supreme Court breaks for its annual summer vacation which is typically for seven weeks — it starts at the end of May, and the court reopens in July. The court takes a week-long break each for Dussehra and Diwali, and two weeks at the end of December.	<ul style="list-style-type: none">- Generally, a few judges are available for hearing urgent cases even when the court is in recess.- The combination of two or three judges, called “vacation benches”, hear important cases that cannot wait.- Cases such as bail, eviction, etc. often find precedence in listing before vacation benches.

Arguments in favour

- Within the legal fraternity, the long breaks are strongly defended.
- Lawyers have often argued that in a profession that **demands intellectual rigour and long working hours** — both from lawyers and judges — vacations are much needed for rejuvenation.

Evaluation

- The **Indian Supreme Court has the highest caseload among the apex courts around the world and also works the most.**
- In terms of the number of judgments delivered too, with 34 judges, the Indian Supreme Court leads the way.
- In 2021, 29,739 cases were instituted before the Supreme Court, and 24,586 cases were disposed of by the court in the same year.

Status of Punjab's sacrilege Bills

Relevance: Prelims & Mains Paper II; Governance



Why in news?

- Punjab Chief Minister Bhagwant Mann called on Union Home Minister Amit Shah last week, seeking his intervention in getting the President's assent on two sacrilege Bills passed by the erstwhile Congress government in 2018.

What are the sacrilege Bills?

- The Punjab Assembly had unanimously passed The Indian Penal Code (Punjab Amendment) Bill, 2018 and The Code of Criminal Procedure (Punjab Amendment) Bill 2018, which stipulate punishment upto life imprisonment for injury, damage or sacrilege to Guru Granth Sahib, Bhagwat Gita, Holy Quran and Holy Bible with the intention to hurt the religious feelings of the people.
- The Indian Penal Code (Punjab Amendment) Bill, 2018, seeks to amend the IPC by inserting Section 295AA. Under the existing Section 295 A [Deliberate and malicious acts, intended to outrage religious feelings of any class by insulting its religion or religious beliefs], a convict can be awarded a maximum of three years' imprisonment with or without fine.

Why these Bills?

- In October 2015, during the former SAD- BJP government's regime, the sacrilege of the Guru Granth Sahib took place in Bargari. It was felt that the quantum of punishment for sacrilege of holy books was inadequate under the existing laws.
- In March, 2016, the then government brought The Indian Penal Code (Punjab Amendment) Bill, 2016, and The Code of Criminal Procedure (Punjab Amendment) Bill, 2016, recommending life sentence for desecration of the Guru Granth Sahib.
- The Centre, however, returned the Bill, saying all religions needed to be treated equally as per the secular nature of the Constitution.
- Saying that the Guru Granth Sahib could not be singled out, the Centre asked the Punjab government to either withdraw the Bill or include all religions in the proposed amendment.
- Later, in August 2018, Captain Amarinder Singh's government passed two Bills including holy scriptures of all faiths.

Why Bills are pending?

- There has been a debate that strict sacrilege laws **can send wrong signals, emboldening hardliners and politicians to misuse the provisions and harass critics and opponents.**
- The **Centre has asked the state to reconsider these Bills.**

State Laws on religious conversions

Relevance: Prelims & Mains Paper II; Governance

Law by Odisha	Madhya Pradesh	Subsequent Acts
<ul style="list-style-type: none">- In post-independence India, Odisha became the first State to enact a law restricting religious conversions, which later became a model framework for other States.- Odisha's 1967 Act provides that no person shall directly or indirectly convert any person from one religious faith to another by force, inducement or any fraudulent means.	<ul style="list-style-type: none">- Later, Madhya Pradesh brought in the Madhya Pradesh Dharma Swatantraya Adhiniyam (1968).- This Act added a provision distinct from the Odisha law, requiring whoever converted any person, either as a religious priest or by taking part in a conversion-related ceremony to intimate the District Magistrate that such a conversion had taken place.- Failure to do so would attract punishment and fines.	<ul style="list-style-type: none">- Subsequent Acts in other States over the past two decades see identical provisions.- These laws also provide for greater punishment for forceful conversion of persons from Scheduled Castes or Scheduled Tribe communities, minors and women.

States with Laws

- More than ten Indian States have passed laws prohibiting certain means of religious conversions — Arunachal Pradesh (1978), Gujarat (2003), Chhattisgarh (2000 and 2006), Rajasthan (2006 and 2008), Himachal Pradesh (2006 and 2019), and Tamil Nadu (a law was enacted in 2002, but repealed in 2004), Jharkhand (2017), Uttarakhand (2018), Uttar Pradesh (2021), and Haryana (2022).
- The Karnataka Assembly also passed an anti-conversion Bill amid stiff opposition.
- Under these laws, penalties for violations range from one to ten years of imprisonment and fines up to ₹50,000.

Check over Love Jihad

- Since 2017, multiple BJP-ruled States enacted or revised their anti-conversion laws, restricting religious conversions on the additional ground of marriage, supposedly to curb what has been described as “love jihad”.
- For instance, the Uttar Pradesh Prohibition of Unlawful Conversion of Religion Act, 2021, which replaced an ordinance passed in 2020, says that a marriage would be declared “null and void” if the conversion is solely for that purpose, and those wishing to change their religion after marriage need to apply to the District Magistrate.

New Law by Madhya Pradesh

- Madhya Pradesh passed a new law in 2021— the **Madhya Pradesh Freedom of Religion Act (MPFRA)**, having the **strictest provisions** compared to other laws.
- While other States prescribe that an individual **must inform a district magistrate 30 days prior to an intended conversion**, the **MPFRA** increases this to **60 days**, and makes it **mandatory for both the individual and the priest facilitating the conversion**.
- The conversion laws of various states require the **initiation of an inquiry after this pre-declaration**, where the **police have to establish the real intent of conversion**.

Centre's Stand

- In an affidavit filed in the Supreme Court last month, the Union Ministry of Home Affairs said that the **right to religion did not include the right to convert other people to a particular religion, especially through fraud, deception, coercion, allurement and other means**.
- The MHA reiterated the interpretation of Article 25 given by the Supreme Court in the **Stainislaus judgement of 1977**. "Fraudulent or induced conversion impinged upon the right to freedom of conscience of an individual apart from hampering public order and, therefore, the state is well within its power to regulate/restrict it," the affidavit reads.

PT Usha becomes first woman Indian Olympic Association chief

Relevance: Prelims & Mains Paper II; Governance



Why in news?

- Former Indian athlete **PT Usha** became the **new chief of the Indian Olympic Association (IOA)**, as well as its **first woman president**.
- The 58-year-old Pilavullakandi Thekkeparambil Usha – for short – is recognised as a phenom in Indian athletics and came onto the scene during the 1980s.
- Later, she became active as a coach and member of sports administration and was **nominated as a Rajya Sabha MP in 2022** by the central government.

Condition of Sporting bodies

- The **IOA** has been mired in controversy for a long time. In fact, the International Olympic Committee (IOC) banned the IOA in 2012 for **government interference and corruption**.
- Like much of the developing world, the story of Indian sports frequently gets marred by **neglect, nepotism and corruption**.
- **Politicians' interference** in sporting bodies has also led to the **athletes' issues taking the backseat**.

Suitability of PT Usha to head IOA

- PT Usha has become the **first Olympian and the first international medallist to head the IOA in its 95-year-old history.**
- After retirement, she was **actively involved in athletics as a coach and mentor** for budding Indian athletes.
- Drawing from her own experiences and the challenges with the lack of facilities and exposure, she **opened the Usha School of Athletics.**
- She has also been **vocal about various issues concerning athletes** in India.
- As someone with the stature of very few in Indian sports outside of cricket, she has **routinely talked about the state of Indian sports administration, and how the lack of scouting, grooming and talent management has led to India's historically disappointing show at the Olympics.**

Multi-State Cooperative Societies (Amendment) Bill, 2022

Relevance: Prelims & Mains Paper II; Governance



Why in news?

- The **Bill to amend the Multi-State Cooperative Societies (MSCS) Act, 2002**, was **introduced in the Lok Sabha** on the first day of the Winter Session on December 7.

Multi-State Co-operative Societies

- Multi-State cooperatives are societies that have **operations in more than one state**- for instance, a farmer-producers organisation which procures grains from farmers from multiple States.
- In **1984, the Multi-State Co-operative Societies Act (amended in 2002) was enacted by Parliament**.
- Such MSCSs are registered under the Multi-State Co-operative Societies Act 2002, and their **regulation lies with the Central Registrar**.

Multi-State Cooperative Societies (Amendment) Bill, 2022

The bill has the following provisions:

1. The Bill provides for the creation of a **central Co-operative Election Authority** to supervise the electoral functions of the MSCSs. The Authority will have a chairperson, vice-chairperson, and up to three members appointed by the Centre.
2. Another provision makes it possible to **override the board of directors** of the society if the Board is not functioning in the interest of the members and the **appointment of an administrator**.
3. The Bill seeks to **allow the merger of any State cooperative society with an existing MSCS**.
4. It envisages the creation of a **Co-operative Rehabilitation, Reconstruction and Development Fund for the revival of sick MSCSs**, financed by existing profitable MSCSs which will have to deposit either Rs. 1 crore or 1% of their net profit.

5. In order to make the **governance of these societies more democratic, transparent and accountable**, the Bill has **provisions for appointing a Cooperative Information Officer and a Cooperative Ombudsman**.
6. To promote equity and inclusiveness, provisions relating to the **representation of women and Scheduled Caste/Scheduled Tribe members on MSCS boards** have been included.
7. The Bill makes **only members eligible to be elected to the board or as office bearers** of the cooperative society.
8. **Active members** have been defined as those who are **availing a minimum level of services from the society or have attended at least three consecutive general meetings**.
9. The Bill also increases the **penalty amount for violation of the law to Rs. 1 lakh and potential imprisonment from six months to a year**.

The Energy Conservation (Amendment) Bill, 2022

Relevance: Prelims & Mains Paper II; Governance



About the act

- The **Energy Conservation Act, 2001** provides a **framework for regulating energy consumption and promoting energy efficiency and energy conservation**. Energy efficiency means using less energy to perform the same task.
- The Act has **set up the Bureau of Energy Efficiency** to recommend **regulations and standards for energy consumption**. These **apply to appliances, vehicles, industrial and commercial establishments and buildings**.
- The recent **bill** seeks to take **further steps** towards energy efficiency and conservation.

Key Features of the Bill

1. Carbon credit trading: The Bill empowers the central government to specify a **carbon credit trading scheme**.

Carbon credit implies a tradeable permit to produce a specified amount of carbon dioxide or other greenhouse emissions. The entities will be entitled to trade the certificates.

The **central government or any authorised agency may issue carbon credit certificates** to entities registered and compliant with the scheme.

Key Features of the Bill (Continued)

2. Obligation to use non-fossil sources of energy: The Bill adds that the government may **require designated consumers to meet a minimum share of energy consumption from non-fossil sources.**

Different consumption thresholds may be specified for different non-fossil sources and consumer categories.

Failure to meet this obligation will be punishable with a **penalty of up to Rs 10 lakh.** It will also attract an **additional penalty of up to twice the price of oil equivalent of energy consumed** above the prescribed norm.

3. Energy conservation code for buildings: The Act empowers the central government to specify Energy Conservation Code for buildings. The code prescribes energy consumption standards in terms of area. The Bill amends this to provide for an '**Energy Conservation and Sustainable Building Code**'.

Under the Bill, the new Energy Conservation and Sustainable Building Code will **also apply to office and residential buildings with a connected load of 100 kilowatt or above.**

Key Features of the Bill (Continued)

4. Standards for vehicles and vessels:

Under the Act, the energy consumption standards may be specified for equipment and appliances which consume, generate, transmit, or supply energy.

The Bill expands the scope to include vehicles (as defined under the Motor Vehicles Act, 1988), and vessels (includes ships and boats).

The failure to comply with standards will be punishable with a penalty of up to Rs 10 lakh.

Non-compliance in case of vessels will attract an additional penalty of up to twice the price of oil equivalent of energy consumed above the prescribed norm.

Vehicle manufacturers in violation of fuel consumption norms will be liable to pay a penalty of up to Rs 50,000 per unit of vehicles sold.

5. Composition of the governing

council of BEE: The Act provides for the setting up of the Bureau of Energy Efficiency (BEE). The Bureau has a governing council with members between 20 and 26 in number.

These include: (i) secretaries of six departments, (ii) representatives of regulatory authorities such as the Central Electricity Authority, and the Bureau of Indian Standards, and (iii) up to four members representing industries and consumers.

The Bill amends this to provide that the number of members will be between 31 and 37. It increases the number of secretaries to 12. It also provides for up to seven members representing industries and consumers.

Delhi L-G directs Chief Secretary money from AAP for political advertisements

Relevance: Prelims & Mains Paper II; Governance



Why in news?

- Delhi Lieutenant-Governor Vinai Kumar Saxena has directed Chief Secretary Naresh Kumar to recover Rs. 97.14 crore with interest from the Aam Aadmi Party (AAP) for a number of “political advertisements” published or telecast as government advertisements in 2015 and 2016.
- The L-G has also asked the Chief Secretary to refer all Delhi government advertisements since September 2016 to the CCRGA for ascertaining if they were in consonance with the top court’s guidelines.

Committee Findings

- Mr. Saxena directed Mr. Kumar to implement the 2016 order of the Committee on Content Regulation in Government Advertising (CCRGA), a three-member body formed by the Union Ministry of Information and Broadcasting on the directions of the Supreme Court.
- The CCRGA in September 2016 found various Delhi government advertisements to be in violation of the top court’s guidelines and had asked the Directorate of Information and Publicity (DIP) to recover the amount spent on those advertisements from the AAP.

Reaction of AAP

- AAP's chief spokesperson said the L-G was passing "illegal orders" without any jurisdiction.
- He further said that the most important aspect here is that the L-G has no power to speak on this matter. He is starting to issue directives on matters in which he has no legal stand.

Jan Vishwas Bill

Relevance: Prelims & Mains Paper II; Governance



About Bill

- The Union Government tabled the **Jan Vishwas Bill**, 2022, (Bill) in the Parliament with the objective of “**decriminalising**” **183 offences across 42 legislations** and **enhancing the ease of living and doing business in India**.
- It is a welcome move and can be viewed as an attempt to reverse the trend of overcriminalisation.
- The Jan Vishwas Bill **either omits penal provisions or replaces them with fines** in legislations such as the **Air Act, Environment Protection Act, Forest Act, Drugs and Cosmetics Acts, Cinematograph Act, Patents Act, Trade Marks Act and Information Technology Act** amongst several others.

Consequences of overcriminalisation

- An **unprincipled growth of criminal law** has long been a cause of concern. It makes the **governments extra powerful and curtail the liberty of people**.
- As per the National Judicial Data Grid, of the **4.3 crore pending cases**, nearly 3.2 crore cases are in relation to criminal proceedings. The growing number of pending criminal cases share a direct relation with the number of criminal laws.
- Similarly, the **rise in the prison population is also proof of overcriminalisation**. As per the National Crime Records Bureau's Prison Statistics of 2021, a total of **5.54 lakh prisoners were confined in prisons against a capacity of 4.25 lakh**.

Remote voting for migrant workers- EC Proposal

Relevance: Prelims & GS Paper II; Governance



Why in news?	Need for remote voting	Solution
<ul style="list-style-type: none">- The Election Commission (EC) announced that it is ready to pilot remote voting for domestic migrants, so they don't have to travel back to their home states to vote.- In its statement, the commission said that it has developed a prototype for a Multi-Constituency Remote Electronic Voting Machine (RVM) that can handle multiple constituencies from a single remote polling booth.	<ul style="list-style-type: none">- As per the 2011 census (the numbers will have risen since then), there are nearly 45.36 crore migrants in India (both intra and inter state) – amounting to approximately 37 per cent of the country's population.- Large number of migrant workers are not able to travel back to cast vote because of exigencies of work or lack of resources to travel.	<ul style="list-style-type: none">- The RVM was developed with the assistance of Bharat Electronics Limited (BEL) and the Electronics Corporation of India Limited (ECIL).- It is based on the currently used EVM system. They will be set up in remote locations outside the state under similar conditions as current polling booths.

Working

- The unique feature of RVMs is that a single Remote Ballot Unit (RBU) will be able to **cater to multiple constituencies (as many as 72)** by using a “**dynamic ballot display board**” instead of the usual printed paper ballot sheet on EVMs.
- The **Ballot Unit Overlay Display (BUOD)** will show the requisite candidates based on the constituency number read on the voter's Constituency card.
- A **barcode scanning system** will be used to read these cards.

Voting Process

- The voting process will be as follows: after verifying a voter's identity, their constituency card will be read with a public display showing the constituency details and candidates.
- This will also be displayed privately, on the BUOD in the RVM's RBU.
- The **voter will then vote and each vote will be stored constituency-wise in the control unit of the voting machine.**
- The **Voter Verifiable Paper Audit Trail (VVPAT)** system is expected to work along the same lines with the new technology. The VVPAT or Verified Paper Record is a method of providing feedback to voters using a ballotless voting system.

INTERNATIONAL ORGANISATIONS & BILATERAL RELATIONS

Govt says India to be 'voice of Global South': What the term means

Relevance: Prelims & Mains Paper II; International Relations



Why in news?

- As India assumed the presidency of the G20 group of countries for 2022 to 2023, Indian External Affairs Minister S Jaishankar said on December 1 that the **country would be the "voice of the Global South"**, that is otherwise under-represented in such forums".

'Global South' and 'Global North' Usage

- '**Global North**' refers loosely to countries like the **US, Canada, Europe, Russia, Australia and New Zealand**, while '**Global South**' includes **countries in Asia, Africa and South America**.
- What sets the terms Global North and South apart are that first, they are arguably more accurate in grouping like countries together, measuring **similarly in terms of wealth, indicators of education and healthcare**, etc.
- Another commonality between the South countries is that most have a **history of colonisation**, largely at the hands of European powers.
- Secondly, this classification trains more focus on the Global South. When leaders such as Jaishankar mention it, they are also pointing to the **region's historical exclusion from prominent international organisations**.
- As a result, the idea that the South can together advocate for common causes has come up.

East and West

- For a long time in the study of international political systems, the method of categorising countries into broad categories for easier analysis has existed.
- The concepts of 'East' and 'West' is one example of this, with the Western countries generally signifying greater levels of economic development and prosperity among their people, and Eastern countries considered as being in the process of that transition.

First World, Second World and Third World countries

- Another similar categorisation is of First World, Second World and Third World countries, referring to countries associated with the Cold war-era alliances of the US, the USSR, and non-aligned countries, respectively.

G7's oil price cap

Relevance: Prelims & Mains Paper II; International Relations



Why in news?

- Oil prices surged higher after a **Group of Seven (G7), European Union and Australian proposal imposing a price cap on Russian seaborne oil came into effect.**
- Both the global oil benchmarks – Brent and West Texas Intermediate crude – rose 60-70 cents a barrel in a day.

How is the price cap intended to work?

- Starting December 5, the European Union said it would implement a plan originally floated way back in May, with the G7 and Australia also signing up on the plan to **impose the price cap on Russian crude oil shipments, pegged at \$60 to a barrel for now.**
- The price cap is essentially **aimed at preventing firms in signatory nations from extending shipping, insurance, brokering and other services to Russian crude oil shipments that are sold at any value above the designated per-barrel price, i.e. \$60 for now.**

Problems with Price cap

- The price cap seeks to balance **two contrasting objectives** – how to **cut Russia's oil and gas earnings** without simultaneously crimping the global supply of oil, which could lead to runaway **inflation** further.
- While a ban is intended to squeeze Russia, it cannot concomitantly be allowed to end up as a chokehold on Russian crude: because if Russian oil does not make its way into the global oil market, then crude prices could potentially spike, impacting consumers in the EU and the US, alongside those in the rest of the world.

Impact on Russia

- **Russia's export revenues have dipped** since the second quarter of 2022, due to an easing of global oil prices and lower gas sales due to Russia's decision to cut flows into Europe through the sabotaged Nord Stream 1 pipeline.
- But **despite all this, Moscow's current account surplus this year is projected to be above \$250 billion, second only to China's.**

India's Position

- Despite the United States-led sanctions on Russia post its invasion of Ukraine, India has decided to not just continue with, but also double its trade with Moscow in the “near foreseeable future”.
- **India, which imported less than 1 per cent of its total crude from Russia before the Russia-Ukraine war, now imports over 20 per cent** of its total requirement from it **due to discount** provided by Russia.
- **Crude imports from Iraq and Saudi Arabia**, which were the top two suppliers of crude to India, constitute **around 21 and 16 per cent**, respectively, of India's total import.

Iran's morality police, 'disbanded' amid street protests

Relevance: Prelims & Mains Paper II; International Issues



Why in news?

- Iran's public prosecutor said that the country's dreaded morality police — the same force in whose custody 22-year-old Mahsa Amini died in September — has been disbanded.
- If the announcement is actually in force, it would signal an extraordinary concession from the Iranian regime to the women who have over the past couple of months led the most powerful and sustained street protests since the Islamic Revolution of 1978-79.

The morality police

- The Gasht-e Ershad are part of the police force and supervised by Supreme Leader Ayatollah Ali Khamenei, but the elected government has a say in their activities through the Interior Ministry. Both men and women officials are part of the morality police.
- Not only the enforcement of hijab, but the implementation of other rules on public appearance and conduct, according to the Iranian authorities' interpretation of the Sharia, are also the responsibility of the police.

Mahsa Amini case

- Mahsa Amini was allegedly beaten by the morality police who had detained her for “incorrectly” wearing the mandatory hijab.
- The Iranian government has denied that Amini was assaulted, and has accused the United States and Israel of orchestrating the popular protests across the country.
- Over the past weeks, the protests have expanded from anger over the hijab regulation to a wider dissatisfaction with state representatives seen to be reinforcing these laws.

The contested hijab

- Iran has a long history of policing the hijab. During the reign of Reza Shah Pahlavi in 1936, the hijab was actually banned in an effort to “modernise” the country.
- The police would then remove the hijab from the heads of women seen wearing it in public.
- This situation was turned on its head after the Revolution, when conservative forces aligned with Ayatollah Ruhollah Khomeini deposed Mohammed Reza Pahlavi, son of Reza Shah, and proclaimed the Islamic Republic.

India assumes presidency of UNSC for a month

Relevance: Prelims & Mains Paper II; International Organisations



Why in news?

- December of 2022 began with India assuming the **presidency of two global bodies — G20 on the first day of the month and UNSC on the second.**
- **Both these positions are rotating,** that is, they come to all members of the bodies by turn.
- The presidency pertaining to G 20 has already been discussed. In this article, we will focus on the Presidency of UNSC.
- New Delhi has said that its presidency of the United Nations Security Council **seeks to prioritise countering terrorism and reformed multilateralism.**

Roles and Powers

- Some of the significant roles of the UNSC broadly include maintaining “**international peace** in accordance with the principles and purposes of the United Nations,” and “**to determine the existence of a threat to the peace or act of aggression and to recommend what action should be taken.**”
- The Council President, according to the UNSC handbook, exercises a vast range of powers such as **holding meetings of the Security Council, approving provisional agendas, signing records of the meetings, besides other crucial decisions.**

Election

- The official website of the UNSC highlights that each of its 15 member states assume its **presidency for a duration of one month,** following the English alphabetical order.
- India had also been in the **presidential position in August 2021.**

U.S Inflation Reduction Act

Relevance: Prelims & Mains Paper II; International Issues

About the act

- Signed into law on August 16, the **Inflation Reduction Act** is a \$430 billion package of federal spending, tax breaks, credits, and levies, aimed at fighting climate change, reducing healthcare costs, and making large corporations pay their “fair share” in taxes.
- The Act is a scaled-down version of Mr. Biden’s ambitious Build Back Better plan that did not get the senate’s approval at the end of 2021.

Details

- Besides its **goal of bringing down inflation**, the Act is the **biggest climate action package in U.S. history**— earmarking \$370 billion for climate-focused funding and investments aimed at cutting emissions by around 40% below 2005 levels by 2030.
- In terms of **healthcare-related provisions**, the Act extends expiring Medicare subsidies to 13 million **Americans** and aims to bring down the cost of prescription drugs, for which Americans pay two to three times more than citizens of other countries.
- The Act also aims to **make the U.S tax code fairer**— the White House factsheet on the IRA points out that the top 1% of earners are estimated to evade \$160 billion in taxes each year. **The IRA imposes a minimum tax of 15% on America’s wealthiest, most profitable corporations**. Notably, by raising corporate taxes, the whole IRA package is paid for, and is estimated to bring a deficit reduction of around \$237 billion.

China-Indian Ocean Region Forum

Relevance: Prelims & Mains Paper II; International Organisations

Why in news?	Objective of the Forum	Countries' Participation
<ul style="list-style-type: none">- On November 21, China's top development aid agency, China International Development Cooperation Agency (CIDCA), convened the first "China-Indian Ocean Region Forum" in the southwestern Chinese city of Kunming.- The forum was "the first high-level official development cooperation forum jointly held by China and countries in the Indian Ocean Region."	<ul style="list-style-type: none">- The forum issued a "Joint Press Statement" that noted China "proposed to establish a marine disaster prevention and mitigation cooperation mechanism between China and countries in the Indian Ocean region".	<ul style="list-style-type: none">- The forum was attended by "high-level representatives" and "senior officials" from 19 countries: Indonesia, Pakistan, Myanmar, Sri Lanka, Bangladesh, Maldives, Nepal, Afghanistan, Iran, Oman, South Africa, Kenya, Mozambique, Tanzania, Seychelles, Madagascar, Mauritius, Djibouti, and Australia.- But at least two of those countries, Australia and Maldives, subsequently released statements, emphasising that they did not participate officially.

Where does India stand?

- India as “a major country in the Indian Ocean region, was **invited to this forum**” and added **that China “looks forward to meeting India at the next forum”**. That prospect appears unlikely.
- **India sees the Indian Ocean Rim Association (IORA) as an already established platform for the region**, which has 23 members, including Australia and Maldives with 10 dialogue partners which include China, Japan, Russia, the U.K. and the U.S.

Chinese surveillance vessel 'Yuan Wang 5' re-enters Indian Ocean

Relevance: Prelims & Mains Paper II; International Relations



Why in news?	Chinese presence in Indian Ocean
<ul style="list-style-type: none">- Chinese surveillance vessel 'Yuan Wang 5' has re-entered the Indian Ocean between December 15-16.- In a similar incident last month, another vessel 'Yuan Wang 6' had entered the Indian Ocean Region (IOR).- In August, the docking of 'Yuan Wang 5' at Hambantota in Sri Lanka had created a major diplomatic showdown between India and Sri Lanka.	<ul style="list-style-type: none">- The Chinese presence in the Indian Ocean began in 2008 under the garb of anti-piracy operations in the Gulf of Aden and have since maintained continuous presence in the region, even deploying nuclear attack submarines (SSN), on occasions.- China had since set up a military base in Djibouti and developed several dual-use ports in the IOR in Sri Lanka, Myanmar, Pakistan, among other countries.

US govt's EAGLE Act

Relevance: Prelims; International Events



Why in news?

- US Congress passed a bill whose aim is to **eliminate the per-country quota on issuing green cards.**
- If bill becomes law, the legislation will allow US **employers to focus on recruiting people based on 'merit' over 'birthplace', and is likely to benefit Indian-Americans.**
- The House of Representatives will soon vote on the **(Equal Access to Green Card for Legal Employment) EAGLE Act of 2022.**

Green Card

- **Officially known as a Permanent Resident Card, a green card, issued to immigrants, allows them to live and work in the United States on a permanent basis.**
- The card serves as evidence that the holder has been accorded the privilege of residing permanently.
- Some of the **benefits** of having a green card are –
 - 1. it provides a **pathway to citizenship,**
 - 2. a green card holder **can sponsor immediate family members** for the same card,
 - 3. it provides easy **access to US' social security system as also education assistance,**
 - 4. **travel to and from the country** becomes much **easier,**
 - 5. a card holder can **choose to live anywhere in the US,**
 - 6. there is **more freedom in terms of career opportunities** as one can apply for a wide variety of jobs, and
 - 7. a card holder can also have some amount of **engagement in the political process** of the country.

New Zealand bans sale of tobacco to those born after 2008

Relevance: Prelims; International Events



Why in news?

- New Zealand Parliament passed a legislation that will increase the legal age to buy tobacco products each year, with the aim of eventually stamping out smoking altogether.
- It also brings in other restrictions on tobacco products, such as limiting the number of shops allowed to sell them and the **amount of nicotine allowed in cigarettes and other consumables**.
- It comes into effect from 2023.

Provisions of Law

- The **Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Bill** bans the sale of tobacco to anyone born after 2008.
- Those found violating the provision will be fined up to NZ\$150,000 (Rs 79 lakh approximately).
- According to the New Zealand Parliament website, "This bill significantly limits the number of retailers able to sell smoked tobacco products; aims to prevent young people from taking up smoking by prohibiting the sale of smoked tobacco products to anyone born on or after 1 January 2009; and aims to make smoked tobacco products less appealing and addictive."
- The Bill, thus, **limits the number of shops able to sell smoked tobacco products** in the country to 600 from the 6,000 at present, and reduces the amount of nicotine allowed in such products.

Condition of Bangladesh's Economy

Relevance: Prelims & Mains Paper II; International Issues



Why in news?

- Last month, Bangladesh reached out to the International Monetary Fund (IMF) seeking help. Bangladesh will receive economic assistance worth \$4.5 billion (around Rs 37,000 crore).
- This is a significant reversal for an economy that overtook India's in terms of per capita income in 2020 on the back of robust economic growth.
- Wanting to capitalise on the growing economic distress, the principal opposition party, the Bangladesh Nationalist Party (BNP), has organised several protest rallies across the country.
- It hopes to corner the Awami League government and its leader Prime Minister Sheikh Hasina, who has dominated Bangladeshi politics for well over a decade now.

Robust Economic Growth

- If one looks at the growth of Gross Domestic Product or GDP, Bangladesh continues to post very impressive numbers.
- For one, unlike many countries including India that saw their GDP contract in 2020 following the Covid-19 pandemic, the economy of Bangladesh actually grew during this period.
- Its GDP grew by 3.4% in 2020, by 6.9% in 2021, and it is expected to grow by 7.2% in 2022.

Problems with Bangladesh's economy

- The IMF states that “Bangladesh’s robust economic recovery from the pandemic has been interrupted by **Russia’s war in Ukraine**, leading to a sharp widening of the current account deficit, rapid decline of foreign exchange reserves, rising inflation and slowing growth.”
- **High Inflation**: Inflation spiked to uncomfortable levels as all kinds of commodities such as crude oil became costlier.
- For the 12 months ending November 2022, inflation grew at 7.48% — much higher than 5.48% in the 12 months ending November 2021.
- **High Current Account Deficit**: Bangladesh’s current account balance has gone deep into a deficit. The current account balance looks at the gap between the money coming into a country on account of earnings via the export of goods and services and the money going out of the country via the import of goods and services.
- Bangladesh has typically been **hugely dependent on its export earnings**, but as the western economies slow, Bangladesh suffers.
- **Weak Currency**: Bangladesh’s currency, the Taka, weakened partly under the pressure of the surge in the US dollar and partly on account of the worsening current account deficit.
- A **weaker Taka further aggravated the inflationary spiral because all imports become costlier** still.
- **Depleted Forex**: The weakness in the external front also resulted in Bangladesh’s foreign exchange reserves getting depleted.
- Last December, the forex reserves were valued at \$46,154 million. As of now, they are just \$33,790 million — a fall of more than one-fourth of its total valuation.

'Twitter Files'

Relevance: Prelims & Mains Paper II; International Issues



Why in news?

- Recently, independent journalist released a 31-tweet thread, titled 'Twitter Files 2.0'.
- Her primary claim: “teams of Twitter employees build blacklists, prevent disfavored tweets from trending, and actively limit the visibility of entire accounts or even trending topics—all in secret, without informing users”.

What is the first “Twitter Files” story?

- “Twitter Files 2.0” comes on the back of revelations released earlier which was heralded by Twitter’s new owner Elon Musk as “Twitter Files”.
- The “Twitter Files” thread alleged that in 2020, during Joe Biden’s presidential campaign, Twitter actively censored a potentially damaging story about US President Joe Biden’s son Hunter, and his alleged dubious business dealings in Ukraine.
- After the story was published, Twitter barred anyone from tweeting a link to it or sending it via direct message, labelling it “hacked material”.
- The company also suspended the New York Post’s account for multiple days, preventing it from tweeting further.

'Pacifist Japan Unveils Unprecedented Military Build-up

Relevance: Prelims & Mains Paper II; International Issues



Why in news?	Counter-strike capacity	Public Supports
<ul style="list-style-type: none">- Japan's military spending has been beefed up to counter threats from China and a heavily armed North Korea. The country's security officials warned that China currently poses the "greatest strategic challenge ever."- The move will now ramp up Japan's security expenditure from 1% of GDP to NATO's standard of 2% of GDP by 2027.	<ul style="list-style-type: none">- Japan seeks to build its "counter-strike capacity." This is the ability to strike other nations that may threaten Japan's safety.- Japan's current missile interception systems are no longer sufficient.- The country will now buy up to 500 US-made Tomahawk cruise missiles which can reach a distance of 1,250 kilometers (775 miles).- Tokyo will also triple the number of military units equipped with ballistic missile interception capabilities.	<ul style="list-style-type: none">- Worried by growing regional threats, Japan's public largely backed the shift.- Nevertheless, the changes could still prove controversial as the country's post-World War II constitution does not recognise the military and reduces it to nominal self-defense capabilities.

The minimum tax on big businesses

Relevance: Prelims; International Events



Why in news?

- Members of the European Union agreed in principle to implement a minimum tax of 15% on big businesses.

Need for Minimum Tax

- EU members have agreed to implement a minimum tax rate of 15% on big businesses in accordance with global tax agreement framed by the Organisation for Economic Cooperation and Development (OECD) last year.
- Under the OECD's plan, governments will be equipped to impose additional taxes in case companies are found to be paying taxes that are considered too low.
- This is to ensure that big businesses with global operations do not benefit by domiciling themselves in tax havens in order to save on taxes.
- The minimum tax proposal is particularly relevant at a time when the fiscal state of governments across the world has deteriorated as seen in the worsening of public debt metrics.

View point of nations

- Some governments, particularly those of traditional **tax havens**, are likely to **disagree** and stall the implementation of the OECD's tax plan.
- **Low tax jurisdictions** are also **likely to resist** the OECD's plan unless they are compensated sufficiently in other ways.
- **High tax jurisdictions** like the EU are more **likely to fully adopt** the minimum tax plan as it saves them from having to compete against low tax jurisdictions.

Support for Proposal

- Supporters of the OECD's tax plan believe that it will **end the completion among governments to lower tax rates in order to attract business** and help governments **collect the revenues required for social spending**.
- Many believe that the plan will also help **counter rising global inequality by making it tougher for large businesses to pay low taxes by availing the services of tax havens**.

Criticism

- Critics of the OECD's proposal, however, see the global minimum tax as a threat.
- They argue that **without tax competition between governments, the world would be taxed a lot more than it is today**, thus **adversely affecting global economic growth**.

Patriot system - America's missile defence umbrella

Relevance: Prelims; International Events



Why in news?

- After much debate, the U.S. finally announced that it would send the Patriot, its most advanced ground-based air defence system, to Ukraine.
- U.S. President Joe Biden made the formal announcement, as part of a new \$1.8 billion aid package.

About Patriot

- U.S. aerospace and defence giant Raytheon Technologies Corp., developed Patriot (Phased Array Tracking Radar to Intercept on Target) in the 1980s to focus on incoming threats.
- The Patriot system's radar has a range of over 150 km and it can track over 50 potential targets at the same time.
- One system typically has eight launchers with each holding between four and 16 ready-to-fire missiles.

Deployment

- The Patriot is one of the most sought-after defence systems and has been deployed in 18 countries, including the U.S.
- It is operational across the NATO geography.
- Now, Ukraine can be added to the list.

Prachanda sworn in as PM of Nepal

Relevance: Prelims & GS Paper II; Bilateral Relations



Why in news?

- Pushpa Kamal Dahal “Prachanda” was sworn in as Nepal’s new Prime Minister, after he switched sides to join hands with the opposition, the former prime minister Kharga Prasad Oli.
- Prachanda was in a pre-election alliance with former Prime Minister Sher Bahadur Deuba.
- This five-party alliance, led by Deuba’s Nepali Congress, was the frontrunner after the November 20 elections, winning the largest number of seats in a fractured mandate.
- However, Prachanda walked out of the alliance at the last moment, after Deuba turned down his demand for the PM chair.

About Prachanda

- This is Prachanda’s third stint as the head of government in the 14 years since Nepal’s monarchy was abolished.
- Before joining mainstream politics in 2006, he had led the Maoist revolt in Nepal for over a decade.

India's interests

- For India, Deuba in office was the best-case scenario. Delhi views Oli as pro-China, and the coming together of Communist forces to form the government is seen as against the interests of India.
- After the bitterness in ties during Oli's terms in office from 2015-2016 and 2018-2021, India-Nepal relations had improved after Deuba became PM in 2021.

Present attempts

- Still, in an indication of how important this relationship is to India, Prime Minister Narendra Modi was the first foreign leader to congratulate Prachanda.
- Prachanda, Maoist leader has been a beneficiary of India's support since 2005 and in 2016.
- At present, however, Oli's influence over Prachanda's government will be a factor in bilateral ties.
- Among the immediate concerns for Delhi would be the fate of the West Seti hydropower project, which the Deuba government awarded to India. Oli's party had opposed the decision.

Ethnic tensions in Northern Kosovo

Relevance: Prelims & Mains Paper II; International Events

Why are there tensions?

- Kosovo won independence from Serbia in 2008. Serbia, however, still considers Kosovo to be an integral part of its territory.
- Kosovo independence is recognised by West. Kosovo has Albanian majority.
- Around 50,000 ethnic Serbs living in northern Kosovo refuse to recognise the status of Kosovo as a separate country. They have the support of many Serbs in Serbia and its government.
- Ethnic Serbs account for 5% of Kosovo's 1.8 million people, with ethnic Albanians making up about 90%.



Aung San Suu Kyi to serve 33 years in prison

Relevance: Prelims & Mains ; International Events



Why in news?

- Myanmar's 77-year-old former leader Aung San Suu Kyi was ordered to serve a **total of 33 years in prison** after convictions on **multiple charges** since her overthrow in a coup early last year.
- Suu Kyi has denied wrongdoing.

Crimes

The punishments conferred by courts under the control of military government are for following crimes:

1. Intent to incite, over a letter sent by her party to international organisations, while she was in detention and denied visitors, asking them not to recognise a military government.
2. Breaching a natural disasters mitigation law in violating COVID-19 rules while election campaigning.
3. Violating an import/export law and a telecommunications law by possessing unlicensed walkie-talkies and signal jammers.
4. Accepting bribes and favouring certain businesses.
5. Influencing the election commission.
6. Violating the Official Secrets Act.
7. Misuse of state funds for lease of a helicopter.

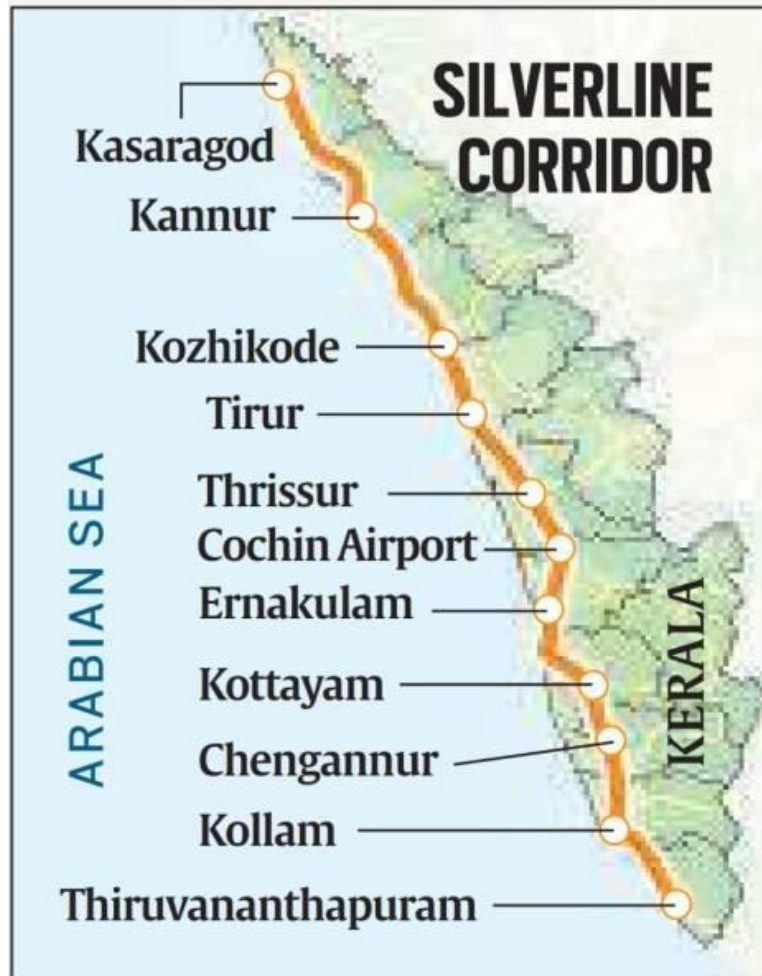
ECONOMICS

Kerala's SilverLine rail project

Relevance: Prelims & Mains Paper III; Economics

Silverline project

- The proposed 529.45-km railway line will link Thiruvananthapuram in the south to Kasaragod in the north, covering 11 districts through 11 stations within four hours, at a speed of 200 km/hr.
- The deadline for the project, being executed by the Kerala Rail Development Corporation Limited (KRDCL), is 2025.
- KRDCL, or K-Rail, is a joint venture between the Kerala government and the Union Ministry of Railways created to execute big railway projects.



Why is the K-Rail needed?

- Urban policy experts have long been arguing that the existing railway infrastructure in Kerala cannot meet the demands of the future.
- Most trains run at an average speed of 45 km/hr due to a lot of curves and bends on the existing stretch.
- The government claims the SilverLine project can take a significant load of traffic off, make travel faster for commuters and reduce congestion on roads.

Current Status

- The state government began the process of land acquisition after the state's cabinet approval in June 2021.
- While Chief Minister Pinarayi Vijayan has written to Prime Minister Narendra Modi requesting his 'personal intervention' to give all necessary clearances, the Centre has only given in-principle approval to the project.

Objections

- Kerala witnessed violent protests in several parts of the state early this year after the Revenue Department started demarcating the proposed project routes.
- The Opposition Congress and BJP joined hands with the local protests against the ambitious project of the state government.
- Opposition says that the project is financially unviable and would lead to displacement of over 30,000 families.

Remittances to India set to touch \$100 Billion annually

Relevance: Prelims & Mains Paper III; Economics

Why in news?	What is a remittance?	Trend in remittances
<ul style="list-style-type: none">- Remittances to India are set to touch a record \$100 billion in 2022, according to the World Bank's latest Migration and Development Brief titled, 'Remittances Brave Global Headwinds'.- India received \$89.4 billion in 2021 — this is the first time a country will reach the \$100 billion mark.	<ul style="list-style-type: none">- It denotes a sum of money sent by one party to another.- These days, the term describes the money sent by someone working abroad to their family back home.- In the case of India, the largest sources of remittances have been from Indians working in the Gulf Cooperation Council (GCC) countries (UAE, Bahrain, Saudi Arabia, Oman, Qatar, Kuwait), and the U.S./U.K.	<ul style="list-style-type: none">- World remittances are expected to touch \$794 billion in 2022, up from \$781 billion in 2021.- Of the \$794 billion, \$626 billion went to low- and middle-income countries (LMICs).- Remittances represent an even larger source of external finance for LMICs in 2022, compared to foreign direct investment (FDI), official development assistance (ODA), and portfolio investment flows.- The top five recipient countries this year are expected to be India (\$100 billion), followed by Mexico (\$60 billion), China (\$50 billion), the Philippines (\$38 billion) and Egypt (\$32 billion).

Fall in India's Exports

Relevance: Prelims; Economics

Why in news?

- India's exports **declined about 16.7% in October compared with the year-earlier period, and trade deficit** (Difference between Imports and Exports of Goods) **widened by as much as 50%.**
- This is the first slide reported for any month since February 2021.

Reasons for fall in exports

- The slowdown has been attributed to
 1. **high inflation in developed regions,**
 2. **falling demand in China,**
 3. **slowdown in the EU and the U.S. and**
 4. **the Russia-Ukraine war.**

Forex position

- For the week ended December 2, **foreign exchange reserves** stood at about **\$561 billion.**
- If we take **October imports at \$56.7 billion** as a benchmark, then we have roughly about **9-10 months' worth of import cover** which is decent.
- Import cover refers to availability of forex to pay for Country's imports.

India Australia Economic and Cooperation Trade Agreement comes into force

Relevance: Prelims & Mains ; Economics



Why in news?

- India has achieved the operationalizing **two Trade Agreements this year**.
- **India UAE Comprehensive Economic Partnership Agreement** came into force on May 1, 2022.
- The **India-Australia Economic Cooperation and Trade Agreement** has come into effect on December 29, 2022.
- The ECTA was signed on April 2, 2022 and ratified on November 21.

Benefit to the countries

1. **Trade in Goods:** Indian goods to get **access to Australian market with zero customs duty**.

India will benefit from preferential market access provided by Australia on **100% of its tariff lines**, including all the labour-intensive sectors of export interest to India, such as Gems and Jewellery, Textiles, leather, footwear, furniture, food, and agricultural products, engineering products, medical devices and Automobiles.

On the other hand, India will be offering **preferential access to Australia on over 70% of its tariff lines**, including lines of export interest to Australia, which are primarily raw materials and intermediaries such as coal, mineral ores and wines.

Both sides have also agreed to a **separate Annex on Pharmaceutical products** under this agreement, which will **enable fast-track approval for patented, generic and biosimilar medicines**.

Benefit to the countries

2. Trade in Services: As regards trade in services, Australia has offered wide-ranging commitments in around 135 sub-sectors and Most Favoured Nation (MFN) status in 120 sub-sectors covering key areas of interest to India.

On the other hand, India has offered market access to Australia in around 103 sub-sectors and Most Favoured Nation status in 31 sub-sectors from the 11 broad service sectors such as 'business services', 'communication services', 'construction and related engineering services', and so on.

3. Job opportunities: It is estimated that an additional 10 lakh jobs would be created in India under ECTA. Indian Yoga teachers and chefs are set to gain with the annual visa quota.

Over 1 lakh Indian students would benefit from post-study work visa (for 18 months to 4 years) under the ECTA.

ENVIRONMENT & BIODIVERSITY

Parliament passes Wildlife Bill: Questions remain on elephants, vermin

Relevance: Prelims & Mains; Environment



Why in news?

- The Parliament recently passed the Wild Life (Protection) Amendment Bill, 2022, which has invited scrutiny on two major issues: the exemption made to allow the transfer of captive elephants, and the sweeping powers given to the Centre to declare species as vermin.

The elephant question

- Given the highest legal protection in 1977, the elephant is the only animal in WLPA's Schedule-I that can still be owned legally — by means of inheritance or gift.
- This made the live elephant trade go underground as traders switched to dressing up commercial deals as fake gift deeds to bypass the amendment.
- To overcome this, the WLPA amendment has added an exception - “transfer or transport of a captive elephant for a religious or any other purpose by a person having a valid certificate of ownership shall be subject to such terms and conditions as may be prescribed by the Central Government”
- Critics point out that the sweeping ambit of “any other purpose” will empower elephant traders, put wild populations at greater risk of capture, and defeat the very purpose of WLPA.

The Vermin Conflict



- Since 1972, the WLPA has identified a few species — fruit bats, common crows and rats — as vermin. Killing animals outside this list was allowed under Section 62.
- Under **Section 62 of WLPA**, given sufficient reasons, **any species other than those accorded the highest legal protection** (such as tigers and elephants but not wild boars or nilgais) **can be declared vermin at a certain place for a certain time**.
- In recent years, however, the **Centre has started using its powers under Section 62 to issue sweeping orders** declaring species as vermin at even state levels, **often without any credible scientific assessment**.
- For example, **nilgais were declared as vermin across 20 districts in Bihar for a year in 2015**. The Centre cited “large-scale destruction of agriculture” as the ground for declaring **monkeys (Rhesus macaque) vermin in Shimla municipality in 2019**.
- The issue has since entered the realm of **centre-state politics**. Since last year, **Kerala’s requests for declaring wild boars** as vermin have been **turned down repeatedly** by the Environment ministry.

Status of the Great Barrier Reef (GBR)

Relevance: Prelims & Mains Paper III; Environment



Why in news?

- Recently, a joint report by the International Union for Conservation of Nature (IUCN) and UNESCO's World Heritage Centre (WHC) expressed concern about the status of the Great Barrier Reef (GBR) in Australia, recommending that it "be inscribed on the List of World Heritage in Danger."

What is the Great Barrier Reef?

- Located off the coast of Queensland, Australia, the GBR is the world's largest coral reef system with over 2,900 individual reefs, 900 islands and an area covering approximately 344,400 square kilometres.
- GBR is one of the biggest biodiversity hotspots in the world as well as one of its largest carbon sinks.
- For Australia, the GBR is a crucial contributor to the economy, supporting over 64,000 jobs and bringing in billions of annual revenue.

Report findings

- The report paints a rather **bleak picture of the GBR's current state.**
- Despite Australia's sustained and scientific efforts to manage the property, currently, the GBR is **adversely and significantly impacted by climate change factors**, affecting its resilience to sustain and regenerate itself.

List of World Heritage in Danger

- According to UNESCO, **"the List of World Heritage in Danger is designed to inform the international community of conditions which threaten the very characteristics for which a property was inscribed on the World Heritage List, and to encourage corrective action."**
- Under the 1972 World Heritage Convention, inscribing a site on the List allows the WHC to allocate **immediate assistance from the World Heritage Fund to the endangered property, while simultaneously gathering international support and attention to the site.**
- While **some countries do welcome the extra support that accompanies inscription** into this list, **many** have often protested and made attempts to **avoid this from happening**, seeing it as a **great embarrassment** for the country.

Failure of countries to meet Aichi Targets

Relevance: Prelims & Mains Paper III; Environment

Why in news?

- Delegates from 196 countries — Parties to the United Nations Convention on Biological Diversity (CBD) — are meeting in Montreal, Canada from December 7-21 with the aim to hammer out a new global agreement on halting environmental loss.
- Many of the 24 conservation targets under discussion at the 15th Conference of the Parties (COP15) aim to avoid past mistakes and improve on the world's last set of conservation goals — the Aichi Biodiversity Targets that expired in 2020.
- No single country met all 20 Aichi Targets within its own borders, according to a September 2020 UN assessment.

What were the Aichi Targets?

- The Aichi Targets, adopted during the 2010 CBD summit in Nagoya, located in Japan's Aichi prefecture, included goals such as reducing deforestation by at least half during the coming decade and curbing pollution so that it no longer harmed ecosystems.
- Many of the targets, however, included vague language and did not hold countries to a specific action.
- After parties adopted the Aichi Targets, they were expected to devise their own national biodiversity strategies that would mimic the goals laid out by Aichi.
- Nearly all parties created these strategies, but most were never fully implemented.

Extent of meeting the Aichi Targets

- The **most notable Aichi objective** — and one of the few to include a **numerical goal** — aimed to **protect or conserve 17% of all land and inland waters and 10% of the ocean by the end of the decade**.
- While some progress was made toward that goal, the world ultimately fell short. Today about **15% of the world's land** and **8% of ocean territories are under some form of protection**, though the level of protection varies.
- About **10% of the targets** saw **no significant progress**, the assessment found. **Six of the targets**, including the land and ocean conservation target, were deemed “**partially achieved**”.
- In the end, Aichi was deemed a failure by the United Nations and the CBD secretariat called on parties to come up with another guiding document to direct conservation efforts through 2030 and beyond.

Insufficient funds

- A **lack of financing** to help developing countries meet the Aichi goals was also an obstacle to their success — a point that has led negotiators to include financing plans within the draft being negotiated at the Montreal talks.
- The **Global Environment Facility**, the **primary source of financing for international biodiversity protection**, has collected around \$5 billion from 29 countries for the funding period from 2022 to 2026.
- That is **hardly enough to make up the \$711 billion funding gap per year estimated by a 2019 assessment by several conservation institutes**.

Protecting the Great Indian Bustard

Relevance: Prelims & Mains Paper III; Environment



Why in news?

- On November 30, the **Supreme Court** asked the **Government**, whether a focussed approach, something like Project Tiger, can be taken up for saving the critically endangered Great Indian Bustard (GIB).
- Hearing petitions highlighting **deaths of the GIBs due to power transmission lines**, a special bench of the apex court directed **Chief Secretaries of Gujarat and Rajasthan** to undertake and complete a comprehensive exercise within four weeks to find out the total length of transmission lines in question and the number of bird diverters required.

Why do power lines pose a threat?

- There are **several threats** that have led to the decline of the GIB populations; however, **power lines** seem to be the **most significant**.
- Like other species of bustards, the GIBs are **large birds standing about one metre tall and weighing about 15 to 18 kgs**.
- The GIBs are **not great fliers** and have **wide sideways vision** to maximise predator detection but the species' **frontal vision is narrow**.
- These birds **cannot detect power lines from far** and since they are heavy fliers, they **fail to manoeuvre across power lines within close distances**.
- The combination of these traits makes them **vulnerable to collision** with power lines. In **most cases**, death is due to collision rather than electrocution.

Present status of Population

- Listed in **Schedule I** of the Indian Wildlife (Protection) Act, 1972, in Appendix I of CITES, as **Critically Endangered on the IUCN Red List**, the GIBs enjoy the highest protection both in India and globally.
- The earliest estimates show the population was about **1,260 in 1969**, but has declined to total of **150 at present**, which includes about **128 birds in Rajasthan**.
- Historically, the GIB population **was distributed among 11 States** but **today the population is confined mostly to Rajasthan and Gujarat**.

Conservation breeding efforts

- Steps have been taken for **conservation breeding** of the species.
- A total of 16 GIB chicks, artificially hatched from eggs collected from the wild, are being reared in the satellite **conservation breeding facility at Sam in Jaisalmer, Rajasthan**.
- The objective of '**Habitat Improvement and Conservation Breeding of Great Indian Bustard-an integrated approach**' is to build the captive population of the GIBs and to release the chicks in the wild.
- The initiative is likely to take 20 to 25 years.

Are there other threats to the GIB?

- According to scientists, the GIBs are **slow breeders** and they **build their nests on the ground**. The species have also been subjected to hunting and egg collection in the past.
- There also has been a **decline in habitat as dry grasslands have been diverted** for other use.
- **Most of the population** of the species is confined to the **Jaisalmer Desert National Park (DNP)**.
- However, a **conservation effort** like 'Project Tiger' may not work for a large bird of an arid region that can always fly out of the protected area.

Why are fisherfolk protesting the Vizhinjam port project?

Relevance: Prelims & Mains Paper III; Environment

Why in news?

- Vizhinjam has been on the boil for the past four months with protesters mainly fisherfolk and their families laying siege to the under-construction Vizhinjam port.
- The **protestors have been demanding the halting of the construction work of the port by Adani Vizhinjam Port Private Limited.**

What lies at the heart of the protests?

- According to protesters, the port work has **aggravated the coastal erosion** along the coast of Thiruvananthapuram.
- They **demand a scientific study** to assess the impact of the port work on the shoreline after stopping the construction of the port.
- Further, around 300 families along the coastline were shifted to relief camps after their houses were destroyed due to high-intensity coastal erosion.
- The protesters demand a comprehensive rehabilitation package for the fisherfolk in the region, among other demands.

Has it aggravated coastal erosion?

- All types of construction work along a coast, aggravate sea erosion (loss of beach) and accretion (gain of beach).
- In Kerala's case, the seasonal shoreline changes would be more severe during monsoon months due to the high-energy short storm waves that lash the coast almost in a perpendicular position moving the sand offshore.
- However, the latest report of the expert committee appointed by the National Green Tribunal and Shoreline Monitoring Cell observed that the relatively high number of cyclones formed over the Arabian sea after cyclone Ockhi in 2017 was the main reason for the recent erosion and accretion and that the impact of the port activity on either side of the coast had less significance.

Kerala Government's Stance

- The Kerala Government made it clear that since the coastal erosion is due to climate change as reported by various agencies, the demand for stopping the port construction cannot be conceded.
- Officials argue that the Vizhinjam seaport is being constructed inside a natural sediment cell which is a pocket-like area in which interruptions to the movement of sand along the coast do not significantly affect the adjacent coastline.

Is the Vizhinjam project important?

- Located on the southern tip of the Indian Peninsula, just **10 nautical miles from the major international sea route** and east-west shipping axis, and with a **natural water depth of more than 20m within a nautical mile** from the coast, the Vizhinjam port is **likely to play a pivotal role in the maritime development of the country and Kerala.**
- The port is expected to leverage the growth of minor ports in Kerala and other regional ports, creating thousands of employment opportunities.

30-by-30: Key takeaways from the COP15 biodiversity summit

Relevance: Prelims & Mains Paper III; Environment



Why in news?

- A **United Nations nature summit (COP15 biodiversity summit)** held at **Montreal** in **December 2022** culminated with a global deal to protect the ecosystems.
- Initially, Summit was **planned to be held at Kunming, China**
- **COP 15** is **Fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity**.

Key takeaways from Summit

The **key areas agreed** on after two weeks of negotiations hosted in Montreal, Canada are as follows:

1. Conservation, protection and restoration

Protection - Delegates committed to **protecting 30% of land and 30% of coastal and marine areas by 2030**, fulfilling the deal's highest-profile goal, known as **30-by-30**.

Restoration - The deal also aspires to **restore 30% of degraded lands and waters throughout the decade**, up from an **earlier aim of 20%**.

Conservation - And the world will strive to **prevent destroying intact landscapes and areas with a lot of species**, bringing those losses "**close to zero by 2030**".

Key Takeaways from Summit (Contd.)

2. Money for nature

Signatories aim to **ensure \$200 billion per year** is channelled to conservation initiatives, from public and private sources.

Wealthier countries should contribute **at least \$20 billion of this every year by 2025**, and **at least \$30 billion a year by 2030**.

3. Big companies report impacts on biodiversity

Companies should **analyse and report** how their **operations affect and are affected by biodiversity issues**.

4. Harmful subsidies

Countries committed to **identify subsidies that deplete biodiversity by 2025**, and then **eliminate, phase out or reform them**.

They agreed to **slash those incentives by at least \$500 billion a year by 2030**, and increase incentives that are positive for conservation.

5. Pesticides

One of the deal's more controversial targets sought to **reduce the use of pesticides by up to two-thirds**.

6. Pollution

Overall, the **focus on reducing the negative impacts of pollution**, but the text provides **no quantifiable target here**.

7. Monitoring and reporting progress

All the **agreed aims will be supported by processes to monitor progress** in the future, in a bid to prevent this agreement meeting the same fate as similar targets that were agreed in Aichi, Japan, in 2010, and never met.

National action plans will be set and reviewed, following a similar format used for greenhouse gas emissions under U.N.-led efforts to curb climate change.

Outcomes of COP under Convention on Biological Diversity

Relevance: Prelims & Mains Paper III; Environment



COP 15

- A major international environmental conference has just concluded in Montreal, Canada, promising to take urgent action to protect and restore the world's biodiversity.
- Signatories to the **Convention on Biological Diversity (CBD)**, a 1993 agreement, meet every two years — not annually like the climate meetings — to **work on a global plan to halt biodiversity loss and restore natural ecosystems**.
- The Montreal meeting was the 15th edition of this conference, hence the name **COP15** — or the 15th Conference of the Parties to the CBD.

Global Biodiversity Framework

- The Montreal Conference has delivered a new agreement called the **Global Biodiversity Framework (GBF)**, which contains **four goals and 23 targets** that need **to be achieved by 2030**.
- The GBF is being **compared to the 2015 Paris Agreement on climate change** that is guiding global climate action.

Comparison with UNFCCC and CCD

- The **UN Framework Convention on Climate Change (UNFCCC)** and the **CBD** were both **outcomes of the 1992 Rio Earth Summit** — as was the third member of the family, the **Convention to Combat Desertification (CCD)**, which deals specifically with the issue of land degradation.
- The **CBD** came **into force in 1993**; the **other two in the following year**.
- The three environmental conventions seek to address the issues that overlap among them. Climate change is one of the main drivers of biodiversity loss, while changes in land and ocean use have an impact on climate change.
- So, while all the three agreements hold their separate COPs, the **interlinkages** are getting increasingly evident. The success on any one helps the cause of the others too.

Cartagena Protocol

- The CBD has given rise to **two 'supplementary' agreements** — the **Cartagena Protocol of 2003** and the **Nagoya Protocol of 2014**. Both agreements take their names from the places where they were negotiated.
- The **Cartagena Protocol on Biosafety** seeks to **protect biodiversity from genetically modified organisms** by ensuring their safe handling, transport and use.
- Genetically modified crops, for example, can interfere with natural ecosystems in ways that might not yet be fully understood. That is the reason why GM crops are cultivated on segregated farms.

Nagoya Protocol

- The Nagoya Protocol on **Access and Benefit Sharing** deals with the commercial utilisation of biological and genetic resources, for example, by pharma companies.
- It asks the host countries to provide access to its genetic resources in a legal, fair and non-arbitrary manner and offers them a fair and equitable share of benefits arising out of the utilisation of those resources.

Kunming – Montreal Meet

- The meeting in Montreal that concluded was the second part of COP15, the **first part** having been held in **Kunming in China** last year.
- Kunming was supposed to hold the entire COP15, but the **Covid** situation in China was not conducive.
- Finally, the conference had to be **shifted to Montreal**, the home of CBD, even though it was held under the **presidency of China**.

30×30 target

- The headline grabbing part of the **four goals and 23 targets in the Global Biodiversity Framework** is what is commonly referred to as the **30×30 target**: a commitment to protect **at least 30 per cent of the world's lands, oceans and coastal areas by 2030**.
- A **related commitment** is to ensure that **restoration activities would be started on at least 30 per cent of degraded land or marine ecosystems by 2030**.

Evaluating the deal



- Though important, this is not the first time that countries at CBD have listed out specific targets for protecting biodiversity.
- In fact, the latest exercise is just a replacement of similar targets that were meant to be achieved in the 2010-2020 decade.
- In 2010, at COP10 in Nagoya, Japan, countries had agreed to a Strategic Plan for Biodiversity containing 20 targets. These used to be called the Aichi targets — Aichi is the region in which Nagoya city is located.
- A recent report showed that none of these targets were achieved at the end of the decade.
- The GBF is to the 2020-30 decade what the Aichi targets were for the previous one. The challenge will be in their implementation.

Polar bears in key Canada region dying: Causes, effects

Relevance: Prelims; Environment



Why in news?

- Polar bears in Canada's Western Hudson Bay, an inland sea connected to the Arctic Ocean, are dying at a fast rate, according to a new government survey.
- It also revealed that females and younger polar bears are the worst affected.
- Western Hudson Bay is the region which includes Churchill, the town that is known as 'the Polar Bear Capital of the World'.

Impact of Climate Change

- The Arctic sea ice is crucial to polar bears' survival as they use it to hunt seals — their chief food.
- However, with rising global temperatures, the sea ice is breaking earlier in summer and refreezing later in winter, due to which polar bears get less time to hunt and have to stay hungry for longer and travel greater distances.

Importance of polar bears



- Polar bears are one of the **most significant predators in the Arctic region** and they **keep biological populations in balance**.
- The **big kills made by them serve as a food resource for scavengers like Arctic foxes and Arctic birds**.
- Researchers have also found that once polar bears **can't find seals to eat**, they would quickly move to kill and survive on other creatures in the Arctic region. This would **threaten the existence of species like the Arctic fox or the walrus**.
- Moreover, it might also cause the **overpopulation of seals**, which could **endanger the existence of crustaceans and fish** that are an important food source for local human populations as well as other Arctic wildlife.

SCIENCE & TECHNOLOGY

Bluebugging

Relevance: Prelims; Science & Technology



Why in news?

- Cybersecurity experts note that apps that let users connect smartphones or laptops to wireless earplugs can record conversations, and are vulnerable to hacks.
- Even the most secure smartphones like iPhones are vulnerable to such attacks.
- Through a process called bluebugging, a hacker can gain unauthorised access to these apps and devices and control them as per their wish.

What is bluebugging?

- It is a form of hacking that lets attackers access a device through its discoverable Bluetooth connection.
- Once a device or phone is bluebugged, a hacker can listen to the calls, read and send messages and steal and modify contacts.
- It started out as a threat for laptops with Bluetooth capability. Later hackers used the technique to target mobile phones and other devices.
- An Independent security researcher blogged about the threat of bluebugging as early as 2004. He noted that the bug exploited a loophole in Bluetooth protocol.

Working of Bluebugging

- Bluebugging attacks **work by exploiting Bluetooth-enabled devices**. The device's Bluetooth must be in discoverable mode, which is the default setting on most devices.
- The hacker then tries to pair with the device via Bluetooth. Once a connection is established, hackers can use brute force attacks to bypass authentication.
- They **can install malware in the compromised device to gain unauthorised access to it**.
- Bluebugging can happen whenever a Bluetooth enabled device is within a 10-metre radius of the hacker. However, according to a blog by VPN service provider NordVPN, hackers can use booster antennas to widen the attack range.

Prevention

- **Turning off Bluetooth** and disconnecting paired Bluetooth devices when not in use, **updating the device's system software** to the latest version, **limiting the use of public Wi-Fi**, and **using VPN** as an additional security measure are some of the ways to prevent bluebugging.

India's SARAS radio telescope finding about first stars and galaxies



Relevance: Prelims; Science & Technology

Why in news?

- Using data from SARAS 3, scientists have determined properties of radio luminous galaxies formed just 200 million years post the Big Bang.
- Researchers estimated the energy output, luminosity, and masses of the first generation of galaxies that are bright in radio wavelengths.

About SARAS 3

- Shaped Antenna measurement of the background Radio Spectrum 3 (SARAS) telescope is-- indigenously designed and built at Raman Research Institute.
- It was deployed over Dandiganahalli Lake and Sharavati backwaters, located in Northern Karnataka, in 2020.

How was detection made?

- Scientists study the properties of very early galaxies by observing radiation from hydrogen atoms in and around the galaxies, emitted at a frequency of approximately 1420 MHz.
- The radiation is stretched by the expansion of the universe, as it travels to us across space and time, and arrives at Earth in lower frequency radio bands 50-200 MHz, also used by FM and TV transmissions.
- The cosmic signal is extremely faint, buried due to brighter radiation from our own Galaxy and man-made terrestrial interference. Therefore, detecting the signal, even using the most powerful existing radio telescopes, has remained a challenge for astronomers.

Elon Musk's brain chip company Neuralink

Relevance: Prelims; Science & Technology



Why in news?

- Neuralink, the Elon Musk company is the target of a federal investigation over its animal trial program.
- It has been trying to develop a brain chip that would enable the paralyzed to walk and the blind to see.

What is Neuralink developing?

- Founded in 2016 by Musk and a group of engineers, Neuralink is building a brain chip interface that can be implanted within the skull, which it says could eventually help disabled patients to move and communicate again, and also restore vision.
- Neuralink's device has a chip that processes and transmits neural signals that could be transmitted to devices like a computer or a phone.
- The company hopes that a person would potentially be able to control a mouse, keyboard or other computer functions like text messaging with their thoughts.
- Neuralink also believes its device will eventually be able to restore neural activity inside the body, allowing those with spinal cord injuries to move limbs.
- Neuralink also aspires to cure neurological conditions such as Alzheimer's and dementia.

Progress made so far

- Neuralink has produced several **examples of testing aspects of its technology successfully on animals**, including a video in 2021 that showed a macaque playing a simple videogame after being implanted with a brain chip.
- Neuralink has **yet to secure U.S. regulatory approval to move to human trials**.
- Neuralink has missed Musk's publicly stated deadlines to start human trials and this year submitted its application to the Food and Drug Administration to begin them.

OpenAI's ChatGPT chatbot

Relevance: Prelims; Science & Technology



Why in news?

- OpenAI is a **start-up focused on artificial intelligence** and its potential use cases.
- OpenAI introduced a new **chatbot called ChatGPT**.
- ChatGPT is a **'conversational' AI** and will answer queries just like a human would.

Ability of ChatGPT

- One can ask ChatGPT for anything; tips on how to set up a birthday party, write an essay on why parliamentary democracy is better, and even a fictional meeting between two well-known personalities.
- The kind of responses it gives, is seen as a replacement for much of the daily mundane writing, from an email to even college-style essays.
- Interestingly, ChatGPT has been trained to decline 'inappropriate' requests, presumably those which are 'illegal' in nature.
- However, it should be noted that ChatGPT has limitations, as it may generate incorrect information, and create "biased content."
- More importantly, the chatbot's knowledge of the world and events after 2021 is limited.

Writing ability

- The chatbot gives answers which are grammatically correct and read well—though some have pointed out that these lack context and substance, which is largely true.
- ChatGPT can even write fiction, but not at the level of a humans, at least not for now.
- Nor is OpenAI the only company trying to get AI to take over writing.
- **Google** had recently showcased how its **LaMDA chatbot** is being used to help with fiction writing, but it too admitted that this was only a helper right now and cannot take over the entire task.

Why in news?

- The government has introduced **paperless entry** at select airports to make **air travel hassle-free**. Under this initiative, airports will use a **facial recognition software called 'DigiYatra' for entry**.
- This means, **passengers won't need to carry their ID card and boarding pass**.
- In the **first phase**, the initiative will be launched at **seven airports**, starting with three — Delhi, Bengaluru, and Varanasi, followed by four airports namely Hyderabad, Kolkata, Pune, and Vijayawada by March 2023.
- Subsequently, the technology will be implemented across the country.

What is DigiYatra?

- DigiYatra envisages that **travellers pass through various checkpoints at the airport through paperless and contactless processing**, using facial features to establish their identity, which would be linked to the boarding pass.
- With this technology, the entry of passengers would be automatically processed based on the facial recognition system at all checkpoints — including entry into the airport, security check areas, aircraft boarding, etc.

How can people avail this facility?

- For availing the service, a passenger has to register their details on the **DigiYatra app** using **Aadhaar-based validation and a self image capture**.
- In the next step, the **boarding pass has to be scanned, and the credentials are shared with airport authorities**.
- At the **airport e-gate**, the **passenger has to first scan the bar coded boarding pass and the facial recognition system installed at the e-gate will validate the passenger's identity and travel document**.
- Once this process is done, the passenger can enter the airport through the e-gate.
- The passenger will have to follow the normal procedure to clear security and board the aircraft.
- Facial recognition technology is beneficial as it makes flying more convenient and reduces congestion at airports.

Implementation

- The project is being **implemented by the DigiYatra Foundation** — a **joint-venture** company whose shareholders are the **Airports Authority of India (26% stake)** and **Bengaluru Airport, Delhi Airport, Hyderabad Airport, Mumbai Airport and Cochin International Airport**.
- These **five shareholders equally hold the remaining 74% of the shares**.

Agni-5 missile tested

Relevance: Prelims; Science & Technology

Why in news?

- A successful flight test of India's long-range surface-to-surface nuclear capable ballistic missile, Agni-5, was undertaken.
- The Strategic Forces Command (SFC), which operates the Agni-5, carried out the test from A P J Abdul Kalam Island off the coast of Odisha.
- Agni-5 has been successfully tested multiple times since 2012. However, the SFC conducted the first testing of Agni-5 only in last year October.

Agni-5 missile

- The nuclear-capable missile, which uses a three-stage solid-fuelled engine, has been developed by India's Defence Research and Development organisation (DRDO).
- The development of Agni missiles started in early 1980 under the Integrated Guided Missile Development Programme spearheaded by scientist and former President Dr A P J Abdul Kalam, who was also a central figure in India's missile and space programmes.

Versions of Agni Missile

- Medium to Intercontinental versions of Agni missile systems **1 to 5** have varying ranges — starting **from 700 km for Agni-1 to 5000 km and above for Agni-5.**
- **Agni-5** can strike targets at ranges of **5,000 to 5,500 km**, which puts major cities in China, including the capital **Beijing**, within its range.
- In June 2021, **DRDO successfully tested Agni P**, a **canisterised missile with a range capability between 1,000 and 2,000 km.**
- This means that the missile can be launched from road and rail platforms, making it easier for it to be deployed and launched at a quicker pace.
- **Agni-6** is also said to be **under development**, with a range starting at **8000 km.**

Who undertook the test?

- The **SFC**, which carried out the test, is a **key tri-services formation that manages and administers all the strategic assets and falls under the purview of the Nuclear Command Authority of India.**
- The **Nuclear Command Authority** is the **sole body which can authorize the use of nuclear weapons.**
- It comprises a **Political Council** and an **Executive Council**. The **Political Council** is chaired by the **Prime Minister.**
- The **Executive Council**, chaired by the **National Security Advisor**, provides **inputs for decision-making by the Nuclear Command Authority and executes the directives given to it by the Political Council.**

India's first 5G-enabled auto manufacturing unit

Relevance: Prelims; Science & Technology



Why in news?

- Bharti Airtel has partnered with Tech Mahindra to deploy a 'captive private network' at Mahindra & Mahindra's Chakan facility in Maharashtra.
- The two claim that the partnership makes it the first 5G-enabled auto manufacturing unit in India.
- Industry analysts are surprised by Airtel's move as it signals the extent of participation that could be possible between telecom companies and other enterprises for 5G use cases.
- With it, Airtel has also stolen a march over the Adani Group, which had purchased spectrum exclusively to offer such services.

What is a private 5G network?

- A private 5G network, also called a captive non-public network (CNPN) essentially is a network that is set up solely for a firm's own use.
- Unlike a public network, it is closed to external communication.
- The network relies on high-frequency, low-wavelength airwaves and is therefore ideal for institutions like factories, manufacturing plants, hospitals, universities etc.
- According to industry analysts, private 5G networks are expected to bring in a large chunk of the revenue for companies deploying them, given that consumer adoption of 5G could take time and may not draw in as much revenue given the typically low tariff rates in India.

Breakthrough in fusion research

Relevance: Prelims & Mains Paper III; Science & Technology



Why in news?

- The major advance was witnessed in fusion research at the Lawrence Livermore National Laboratory in California.
- Scientists for the first time were able to engineer a reaction that produced more power than was used to ignite it.

What is nuclear fusion?

- Nuclear fusion reactions power the sun and other stars.
- The reaction happens when two light nuclei merge to form a single heavier nucleus. Because the total mass of that single nucleus is less than the mass of the two original nuclei, the leftover mass is converted into the energy.
- In the case of the sun, its intense heat — millions of degrees Celsius — and the pressure exerted by its gravity allow atoms that would otherwise repel each other to fuse.

Importance

- There are decades more to wait before fusion could one day be used to produce electricity in the real world.
- If harnessed, it could produce nearly limitless, carbon-free energy to supply humanity's electricity needs without raising global temperatures and worsening climate change.

How are scientists trying to do this?

- One way scientists have tried to recreate nuclear fusion involves what's called a **tokamak — a doughnut-shaped vacuum chamber that uses powerful magnets to turn fuel into a superheated plasma** (between 150 million and 300 million degrees Celsius) where fusion may occur.
- The **Livermore lab** uses a different technique, with **researchers firing a 192-beam laser at a small capsule filled with deuterium-tritium fuel.**

Geminids meteor shower

Relevance: Prelims & Mains Paper III; Science & Technology

Meteor Showers	What are Geminids?	What is their source?
<ul style="list-style-type: none">- Meteors are fragments of comets and asteroids. As they enter the Earth's atmosphere at high speed, they burn up, creating a spectacular "shower".	<ul style="list-style-type: none">- NASA describes the Geminids as "one of the best and most reliable annual meteor showers". If their peak coincides with the new moon, and if the weather is clear, the Geminids can produce approximately 100-150 meteors per hour for viewing.- This year however, the moon is bright, and so only 30-40 meteors per hour were visible in the Northern Hemisphere.	<ul style="list-style-type: none">- The Geminids are unique because unlike most meteor showers, they originate not from a comet, but from an asteroid, the 3200 Phaethon.- The 3200 Phaethon was discovered on October 11, 1983.- It is named after the Greek mythology character Phaethon, son of the Sun God Helios.- It takes 1.4 years to complete one round of the Sun. As the 3200 Phaethon moves close to the Sun while orbiting it, the rocks on its surface heat up and break off.- When the Earth passes through the trail of this debris, the Geminids are caused.

Why are they called Geminids?



- That comes from the **constellation Gemini**, from **whose location in the sky the meteor shower appears to originate**.
- According to NASA, “The constellation for which a meteor shower is named only serves to aid viewers in determining which shower they are viewing on a given night. The constellation is not the source of the meteors..”

How gene therapy could cure cancer?

Relevance: Prelims & Mains Paper III; Science & Technology

Why in news?

- Scientists in the United Kingdom testing a new form of cancer therapy, reported success in a teenage girl, Alyssia.
- She was suffering with a form of cancer called T-cell acute lymphoblastic leukaemia.
- This trial testing the new therapy was led by doctors and scientists at the University College, London, and Great Ormond Street hospital.

What is this cancer?

- In this form of blood cancer, the T-cells, which are a class of white blood cells, equipped to hunt and neutralise threats to the body, turn against the body and end up destroying healthy cells that normally help with immunity.
- The disease is rapid and progressive and is usually treated by chemotherapy and radiation therapy.

Alyssia's treatment

- Alyssia, 13, tried several of the standard treatments including chemotherapy and radiation but with limited success.
- Just when it seemed there was no hope, she was enrolled in the trial testing of experimental medicine.
- Alyssia was the first to receive experimental gene therapy that relied on a new technique called 'base editing.'

What is 'base editing?'

- A person's **genetic code** is several permutations of **four bases: Adenine (A), Guanin (G), cytosine (C) and thymine (T)**.
- Sequences of these bases, akin to letters in the alphabet, spell out genes that are instructions to produce the wide array of proteins necessary for the body's functions.
- In **Alyssia's case, her T-cells — perhaps because of a mis-arrangement in the sequence of bases — had become cancerous.**
- A way to correct this mis-arrangement could mean a healthier immune system.
- In the last two decades, the world of biomedical engineering has been enthused by a technique that allow genes to be altered and errors 'fixed.'
- The most popular among these approaches has been the **CRISPR-cas9 system.**

About CRISPR-Cas 9 system

- The **CRISPR-Cas 9 system, consists of an enzyme that acts like molecular scissors. It can be made to cut a piece of DNA at a precise location and a guide RNA can be used to insert a changed genetic code at the sites of the incision.**
- While there are a few ways to effect such changes, the CRISPR-cas9 system is believed to be the fast, most versatile system to effect such gene editing.
- Researchers have **improvised on the CRISPR-cas9 system to be able to directly change certain bases: thus, a C can be changed into a G and T into an A.**
- While still a nascent technology, base editing is reportedly more effective at treating blood disorders which are caused by so-called single point mutations, or when a change in a single base pair can cause terminal disease.

Base-editing in Alyssia's therapy

- The objective of gene therapy in the case of T-cell leukemia was to fix her immune system in a way that it stops making cancerous T-cells.
- First, healthy T-cells were extracted from a donor and put through a series of edits. The first base edit blocked the T-cells targeting mechanism so it would cease attacking Alyssa's body, the second removed a chemical marking, called CD7, which is on all T-cells and the third prevented the cells from being killed by a chemotherapy drug.
- Finally, the T-cells were programmed to destroy all cells — cancerous or protective — with CD7 marked on it.
- After spending a month in remission, she was given a second donor transplant to regrow her immune system that would contain healthy T-cells.

How effective was the treatment?

- Alyssia was one of 10 people enrolled in the trial to receive the treatment.
- It has been 1.5 years since she was first diagnosed with the disease and whether the treatment has reliably and entirely fixed her immune system, **remains to be established**.

Plan to boost NavIC

Relevance: Prelims & Mains Paper III; Science & Technology

Why in News?	What exactly is ISRO doing	What is NavIC?
<ul style="list-style-type: none">- To promote the use of 'NAVigation with the Indian Constellation' (NavIC), the Indian Space Research Organisation (ISRO) will introduce the L1 frequency in all its future satellites.	<ul style="list-style-type: none">- The seven satellites in the NavIC constellation so far use two frequencies for providing positioning data — the L5 and S bands.- The new satellites NVS-01 onwards, meant to replace these satellites, will also have L1 frequency.- The L1 is the oldest and most established GPS signals, which even the less sophisticated, civilian-use devices such as smartwatches are capable of receiving.- Thus, with this band, the use of NavIC in civilian-use gadgets can go up.	<ul style="list-style-type: none">- NavIC is India's homegrown alternative to GPS. Developed by ISRO, the navigation satellite system became operational only by 2018.- At present, it consists of eight satellites, covering the whole of India and up to 1,500 km from its boundaries.

NavIC Uses

- NavIC is mainly being used in **public vehicle tracking**, to **provide emergency warning alerts to fishermen** venturing into the deep sea, and for **tracking data related to natural disasters**.
- The **government is also pushing for its increased use in smartphones**.
- In fact, it has been reported that the government **urging tech giants to make smartphones compatible with NavIC** had “worried the likes of Samsung, Xiaomi and Apple, who fear elevated costs and disruptions as the move requires hardware changes.”

Advantages of NavIC

- To put it briefly, the government says that India should not **rely on positioning systems run by other governments**, which are at the risk of suspension for civilians in times of crises.
- Also, NavIC, since it is **homegrown**, will be **more accurate** than other systems.
- The **satellites placed directly over India also ensure better availability of signals in varied geographical regions** compared to **GPS**, which **India receives at an angle**, making it difficult to access in dense forests or valleys.

Navigation Systems

- Apart from the US-owned GPS, the other prominent navigation systems are **Galileo** from the **European Union**, **Russia-owned GLONASS** and **China's Beidou**. **QZSS**, operated by **Japan**, is another regional navigation system **covering Asia-Oceania region**.

End-to-end encryption

Relevance: Prelims & Mains Paper III; Science & Technology



Meaning

- End-to-end encryption is a communication process that **encrypts data being shared between two devices.**
- It **prevents third parties** like cloud service providers, internet service providers (ISPs) and cybercriminals **from accessing data while it is being transferred.**
- The process of end-to-end encryption uses an algorithm that transforms standard text into an unreadable format.
- This format can only be unscrambled and read by those with the decryption keys, which are only stored on endpoints and not with any third parties including companies providing the service.

Where is it used?

- End-to-end encryption is used to secure communications. Some of the **popular instant-messaging apps** that use it are Signal, WhatsApp, iMessage, and Google messages.
- It is **also used to secure passwords, protect stored data and safeguard data on cloud storage.**

What does it mean for users?

- End-to-end encryption ensures that **user data is protected from unwarranted parties** including service providers, cloud storage providers, and companies that handle encrypted data.
- However, end-to-end encryption **does not protect metadata, which includes information like when a file was created, the date when a message is sent and the endpoints between which data was shared.**

Government opposition

- End-to-end encryption is also seen as a technology that **secures users' data from snooping by government agencies**, making it a sought-after feature by activists, journalists, and political opponents.

NASA set to conduct first global water survey from space

Relevance: Prelims; Science & Technology



Why in news?

- Dubbed as **SWOT** (Surface Water and Ocean Topography), the advanced radar satellite is designed to give an unprecedented view of water which is covering 70% of the planet, shedding new light on the mechanics and consequences of climate change.
- The satellite is NASA Space project.

Applications

1. SWOT will collect height-surface measurements of water bodies in high-definition detail over 90% of the globe.
 2. The SWOT's ability to discern smaller surface features will help study the impact of rising ocean levels on coastlines.
 3. More precise data along tidal zones would help predict how far storm-surge flooding may penetrate inland.
 4. One major thrust of the mission is to explore how oceans absorb atmospheric heat and carbon dioxide in a natural process that moderates global temperatures and climate change.
- SWOT is designed to precisely measure fine differences in surface elevations around smaller currents and eddies (whirlpools), where much the oceans' drawdown of heat and carbon is believed to occur.

INS Mormugao, Navy's new guided missile destroyer

Relevance: Prelims; Science & Technology



Why in news?

- The **second of the Project 15B stealth-guided missile destroyers** built by Mazagon Dock Shipbuilders Limited (MDSL), **INS Mormugao (Pennant D67), was commissioned into the Indian Navy.**
- The ship, named after a key port in Goa, was commissioned a day before the Goa Liberation Day celebrations. On December 19, 2021, Goa celebrated 60 years of liberation from Portuguese rule.

Project 15A

- Over the **last decade**, the **Indian Navy** has commissioned three **guided missile destroyers of the Kolkata class** — **INS Kolkata, INS Kochi, and INS Chennai** — under the project codenamed 15A.
- These ships were a **step ahead of their precursor Delhi class of ships** — **INS Delhi, INS Mysore, and INS Mumbai.**
- All these ships were **built by Mazagon Dock Shipbuilders Limited (MDSL)**, one of the country's most important **Defence PSUs.**
- A ship '**class**' describes a group of vessels of similar tonnage, usage, capabilities, and weaponry.

Project 15B

- The contract for four guided missile destroyers more advanced than the Kolkata class was signed in January 2011.
- This was Project 15B, and the lead ship, INS Visakhapatnam (Pennant D66) was commissioned into the Navy in November 2021.
- Designed by the Warship Design Bureau, Indian Navy's in-house warship design body, and built by MDSL in Mumbai, the four ships of Project 15B were to be named after four major cities around the country — Visakhapatnam, Mormugao, Imphal, and Surat.
- A ship class is identified by its lead ship, in this case, INS Visakhapatnam.

Strategic significance

- Technically, destroyers are a category of warships that have high speed, manoeuvrability, and longer endurance to be part of the escort for larger vessels in a fleet, or a carrier battle group also known as a carrier strike group.
- Guided missile destroyers are capable of anti-aircraft and anti-submarine warfare, apart from anti-surface operations.
- Because of their speed, manoeuvrability, and strike capability, guided missile destroyers are key assets in various types of naval operations, mainly offensive.

BF.7 - the Omicron sub-variant driving the surge in China

Relevance: Prelims & Mains Paper III; Science & Technology



Why in news?

- The current surge in Covid-19 infections in China is believed to be driven by the BF.7 sub-variant.
- This isn't the first time that BF.7 has made news — in October, it started to replace the variants that were then dominant in the United States and several European countries.

What do we know about BF.7?

- When viruses mutate, they create lineages and sub-lineages — like the main trunk of the SARS-CoV-2 tree sprouting branches and sub-branches.
- The BF.7 is the same as BA.5.2.1.7, which is a sub-lineage of the Omicron sub-lineage BA.5.
- According to a study, BF.7 sub-variant has a 4.4-fold higher neutralisation resistance than the original D614G variant (Wuhan virus)- meaning that in a lab setting, antibodies from a vaccinated or infected individual were less likely to destroy BF.7.
- A higher neutralisation resistance means there is a higher likelihood of the variant spreading in a population and replacing other variants.

Is BF.7 circulating in India?

- The January 2022 wave in India was driven by the BA.1 and BA.2 sub-variants of Omicron.
- The sub-variants BA.4 and BA.5 that followed were never as prevalent in India as they were in European countries; thus, India saw very few cases of BF.7 (which is an offshoot of BA.5).

What was different in China?

- Experts believe that it is not the higher transmissibility or immune evasiveness of the BF.7 variant that led to the increase in cases in China, rather an immune-naïve population drove the numbers.
- China is now experiencing the typical Omicron surge that other countries have already witnessed.
- For India, the Omicron wave looked milder because the population was protected with previous infection and vaccination.
- Plus, we have already paid the price, so to say, during the Delta wave (of April-May 2021). People died but those who survived had better immunity.
- This is the reason even highly transmissible variants haven't led to a deluge of cases, with most people recovering after a bout of fever, cough, and sore throat.

But isn't a large chunk of China's population vaccinated?



- China indeed has a high vaccination rate — 235.5 doses per 100 population as per the WHO dashboard.
- However, China was among the earliest countries in the world to develop and administer vaccines to its population, and its vaccines were developed against the original variant of the coronavirus.
- The virus has mutated many times over since the beginning of 2020 — and the **Omicron variants are known to evade the immune response from most vaccines currently in use.**

Uncontrolled re-entries of rockets and satellites in Earth's atmosphere

Relevance: Prelims & Mains Paper III; Science & Technology



Why in news?	Outer Space Institute	Uncontrolled re-entries
<ul style="list-style-type: none">- More than 140 experts and dignitaries have signed an open letter published by the Outer Space Institute (OSI) calling for both national and multilateral efforts to restrict uncontrolled re-entries.- Among others, the letter is addressed to S. Somanath, chairman of the Indian Space Research Organisation (ISRO).	<ul style="list-style-type: none">- The Outer Space Institute (OSI) is network of world-leading space experts united by their commitment to highly innovative, transdisciplinary research that addresses grand challenges facing the continued use and exploration of space.- It comprises of physical scientists, social scientists, lawyers, engineers, industry leaders, and policy makers.	<ul style="list-style-type: none">- Uncontrolled re-entries is the phenomenon of rocket parts falling back to earth in unguided fashion once their missions are complete.- Rockets have multiple stages. Once a stage has increased the rocket's altitude and velocity by a certain amount, the rocket sheds it.- In an uncontrolled re-entry, the rocket stage simply falls. It will also disintegrate as it falls.- As the smaller pieces fan out, the potential radius of impact will increase on the ground.

How dangerous is it?

- Some pieces burn up entirely while others don't. But **because of the speed at which they're travelling, debris can be deadly.**
- A 2021 report of the International Space Safety Foundation said, "an impact anywhere on an **airliner with debris of mass above 300 grams would produce a catastrophic failure, meaning all people on board would be killed**".

Minimisation of damage

- There is **no international binding agreement to ensure rocket stages always perform controlled re-entries.**
- The **Liability Convention 1972** requires countries to pay for damages, not prevent them.
- **Technologies** such as **wing-like attachments, de-orbiting brakes, and extra fuel on the re-entering body, and design changes** can minimise debris formation.
- The OSI letter concludes by asking that **future solutions be extended to re-entering satellites as well.**

'Dark patterns' in the Internet

Relevance: Prelims; Science & Technology



What are Dark Patterns?

- Such patterns are **unethical user interface designs** that deliberately make your **Internet experience harder or even exploit you**. In turn, they **benefit the company or platform** employing the designs.
- Dark Patterns are also known as “**deceptive patterns**.”
- The term is credited to UI/UX (user interface/user experience) researcher and designer **Harry Brignull**, who has been **working to catalogue such patterns** and the companies using them since around 2010.

How do companies use dark patterns?

- Social media companies and **Big Tech firms** such as Apple, Amazon, Skype, Facebook, LinkedIn, Microsoft, and Google use dark or deceptive patterns to downgrade the user experience to their advantage.
- Amazon came under fire in the EU for its confusing, multi-step **cancellation process for the Amazon Prime subscription**.
- **LinkedIn** users often **receive unsolicited, sponsored messages from influencers**. **Disabling this option** is a difficult process with multiple steps that requires users to be familiar with the platform controls.
- Some Internet-based firms have been tricking users into **agreeing to certain conditions or clicking a few links**. Such acceptances and clicks are flooding **inboxes of the users with promotional emails they never wanted**, making it hard to unsubscribe or request deletion.

HPV vaccine to be part of UIP

Relevance: Prelims; Science & Technology



Why in news?

- The government has announced that it will roll out Human Papillomavirus (HPV) vaccines for the prevention of cervical cancer to girls aged between 9 and 14 years through schools.
- The indigenous HPV vaccine, called CERVAVAC, is likely to be rolled out by mid-2023.
- The vaccine was cleared by NTAGI, for use in the Universal Immunisation Programme (UIP).

Why in news?

- The government advisory panel, National Technical Advisory Group for Immunisation (NTAGI) had recommended the introduction of HPV vaccine in UIP.
- The UIP is one of the largest public health programmes which offers free vaccines for at least 12 diseases, and has successfully eradicated diseases like polio and maternal and neonatal tetanus.

HPV Vaccine Need

- Cervical cancer is preventable and curable if it is detected early and managed effectively.
- It is the second most common cancer in women in India, and the cause of a large number of deaths annually.
- It is caused by infection with the human papillomavirus, and there are vaccines to protect against cancerous HPV.

SOCIAL ISSUES

Indian states on alcohol ban

Relevance: Prelims & Mains Paper I; Social Issues



Why in news?

- The official **death toll** from the latest hooch tragedy in “dry” **Bihar has mounted to 38.**
- Critics have claimed that one of the reasons behind the tragedy is the **state’s prohibition policy**, with an official ban on alcohol leading to a **thriving underground economy where such spurious alcohol is produced and sold.**
- India has a long history of banning alcohol, with prohibition a part of the **Directive Principles of State Policy** in the Constitution and also among the key **Gandhian principles.**

Matter with States

- According to the **Seventh Schedule** of the Constitution, alcohol is a **state subject**, i.e. state legislatures have the right and responsibility to draft laws regarding it, including “the production, manufacture, possession, transport, purchase and sale of intoxicating liquors.”
- Thus, laws regarding alcohol **differ from state to state.**
- For most states, it is very difficult to declare a ban on alcohol. This is primarily because **liquor revenues** are not easy to ignore and have consistently contributed a **large share of state governments’ revenue.**

States/UTs with prohibition



- All states have some regulations with regards to alcohol consumption and sale (like age requirements or dry days).
- Currently, there are five states/UTs with total prohibition and some more with partial prohibition.
- **Bihar**: Liquor was completely banned by the Nitish Kumar government back in 2016, in keeping with a promise made to the women of Bihar ahead of the Assembly polls.
- **Gujarat**: Gujarat has had prohibition since it came into existence as a state in 1960.
- **Lakshadweep**: The Union Territory bans alcohol keeping in mind the culture and sentiments of its predominantly Muslim population.
- **Mizoram**: In 2019, Mizoram became a “dry state” once again after the new government reintroduced prohibition that was repealed in 2015. Previously, Mizoram had seen prohibition for 18 years.
- **Nagaland**: Nagaland introduced total prohibition in 1989 due to “moral and social” reasons, for the greater good of its citizens.

Does prohibition work?

- There is evidence to show that by and large, prohibition creates opportunities for a thriving underground economy that distributes liquor, outside the regulatory framework of the state.
- This creates its own problems, from strengthening organised crime groups (or mafias) to the distribution of spurious liquor.
- Furthermore, prohibition disproportionately affects poorer sections of society with upper classes still being able to procure expensive (and safe) alcohol.
- Even in the case of Bihar, a majority of cases registered under its prohibition laws are on the less privileged.
- However, prohibition might have some limited benefits as well. Various studies have provided evidence linking alcohol with domestic abuse or domestic violence. In India, prohibition has often been framed as a “women’s rights” issue. Nitish Kumar’s decision in Bihar was ostensibly made on these grounds.

MISCELLANEOUS

What is doxxing?

Relevance: Prelims

Why in news?	What is doxxing ?	Twitter's new Policy
<ul style="list-style-type: none"> - Twitter has suspended the account of several journalists in the United States, and according to its owner Elon Musk, this was in continuation of the social media platform's new anti-doxxing policy. 	<ul style="list-style-type: none"> - Doxxing is basically the revealing of someone's intimate information, where harassment is the intent. - It is a popular and controversial tactic used against those with opposing political views and sometimes even celebrities and influencers have been doxxed with real-life consequences. - This private information includes one's address, phone number, financial information, etc. 	<ul style="list-style-type: none"> - Twitter's policy now includes sharing the live location of any individual as a possible "serious safety and security risk," and this is not allowed. - The opening paragraphs for the policy on 'private information' which was updated as of December 2022, now read that users may not publish other people's private information without "their express authorization and permission," adding that "threatening to expose such information is also prohibited."

Action against violation

- According to the policy, violation of these can result in the **account getting locked** and **continued violations can result in a permanent suspension**.
- But **sharing anyone's live location without express permission will lead to an automatic suspension**, which is what happened with the journalists. Musk tweeted this is a 7-day suspension, and the users will get access back after this period.

Golden Ball award

Relevance: Prelims;

Why in news?

- Lionel Messi won Golden Ball, the best player award, at the 2022 Fifa World Cup in Qatar, as he led Argentina to their third triumph on the global stage.
- He also becomes the first player to win the Golden Ball in two editions of the World Cup.

About Award

- The World Cup Golden Ball is the award given to the best player at a particular World Cup tournament.
- As well as a Golden Ball, FIFA awards the Silver Ball to the player deemed second best and a Bronze Ball to the third-best player.



Reliance Retail acquires METRO 'Cash & Carry'

Relevance: Prelims



Why in news?	About Metro Cash & Carry	Expected benefits
<ul style="list-style-type: none">- Reliance Retail Ventures LTD (RRVL), India's largest retailer and a subsidiary of Reliance Industries signed agreements to acquire a 100 per cent equity stake in METRO Cash & Carry India Pvt Ltd, a wholesale food products company, for Rs 2,850 crore.	<ul style="list-style-type: none">- German company METRO AG is an international food wholesaler, and it also owns retail and department stores.- It specialises in serving the needs of hotels, restaurants, and caterers as well as independent merchants. Reliance Retail has now acquired the Indian arm of the company, known for its 'Cash and Carry' model.	<ul style="list-style-type: none">- Through this acquisition, Reliance Retail gets access to a wide network of METRO India stores located in prime locations across key cities, a large base of registered kiranas and other institutional customers.- It will also get a strong supplier network and some of the global best practices implemented by METRO in India.

Buybacks: Sebi phasing out the stock exchange route

Relevance: Prelims



Why in news?	What is share buyback?	Stock Exchange Route
<ul style="list-style-type: none">- The Securities and Exchange Board of India (Sebi) has decided to phase out the buyback of shares of listed companies through the stock exchange route.	<ul style="list-style-type: none">- When a listed company buys its own shares from the existing shareholders, it is known as a share buyback, which is also called share repurchase.- The process reduces the number of outstanding shares in the open market over a period which can lead to better valuation and earnings per share (EPS).- The maximum limit of any buyback is 25 per cent or less of the aggregate of paid-up capital and free reserves of a company.	<ul style="list-style-type: none">- Under the stock exchange route, a company can buy back shares only on the stock exchanges having nationwide trading terminals.- The buyback of shares is made only through the order-matching mechanism. In this method, the promoters, or persons in control of a company are not allowed to participate.

Opposition to exchange route

- As per the recommendations of the **Keki Mistry-headed committee**, set up by **Sebi to review the buyback regulations**, under the stock exchange route, there is a **possibility of one shareholder's entire trade getting matched with the purchase order placed by the company**, thus depriving other shareholders of availing the benefit of buyback.
- This **runs contrary to the principle of equitable treatment**, which forms the basis of all corporate actions.
- As recommended by the Keki Mistry committee, Sebi will phase out buyback through the stock exchange route with effect from April 1, 2025.

Suitable mechanism for buyback

- The **tender route** is the more equitable route for buybacks.
- A tender offer means an offer by a company to buy back its own shares or other specified securities through a **letter of offer from the holders of the shares or other specified securities of the company**.
- The buyback is done on a **proportionate basis** as per the buyback ratio, and the additional shares tendered over and above the prescribed buyback ratio get accepted if there are any unaccepted shares. It is a fixed-price buyback offer.

Two sites in Gujarat - tentative list of UNESCO World Heritage sites

Relevance: Prelims



Why in news?	World Heritage Site	Process
<ul style="list-style-type: none">- Two sites in Gujarat have made it to the tentative list of UNESCO World Heritage sites: Vadnagar, and the Sun Temple of Modhera, both in the Mehsana district of northern Gujarat.	<ul style="list-style-type: none">- A World Heritage Site is a location with an “outstanding universal value”.- This signifies “cultural and/or natural significance which is so exceptional as to transcend national boundaries and be of common importance for present and future generations of all humanity”.	<ul style="list-style-type: none">- According to the World Heritage Convention’s operational guidelines, a tentative list is an “inventory” of properties a country believes deserve to be a World Heritage Site.- After UNESCO includes a place in the Tentative List, that country has to prepare a nomination document that will be considered by the UNESCO World Heritage Committee.- This will be followed by a UNESCO evaluation and an inspection by their representative.

About Vadnagar

- **Vadnagar**, a city known by names like **Vridhanagar**, **Anandapur**, **Anantapur** and **Nagar**, is said to have been inhabited uninterruptedly for over **2,700 years**.
- Several archaeological excavations highlighted the city as a **centre of Buddhism**.



Sun Temple of Modhera

- The Sun Temple of Modhera is a **Hindu temple** dedicated to the **solar deity** Surya located at **Modhera village** of Mehsana district, Gujarat, India.
- It is situated on the bank of the **river Pushpavati**.
- It was built **after 1026-27 CE** during the reign of **Bhima I** of the **Chaulukya dynasty**.



J&K Land Grants Rules, 2022

Relevance: Prelims



Why in news?

- The J&K Lieutenant Governor's administration recently notified fresh land rules under J&K Land Grant Rules-2022 and replaced the J&K Land Grants Rules-1960, which dealt with the special rules to grant government land on lease in erstwhile State of J&K.
- Under the previous rules, prime locations such as Srinagar, Jammu, Gulmarg and Pahalgam were opened up for construction of hotels, commercial structures and residential buildings in the past.

Impact of new rules

- These land laws were considered as the backbone of J&K's upper middle class and allowed a new chain of hotels and commercial structures to come up in prime locations, including places like Pahalgam and Gulmarg over the years.
- J&K L-G Manoj Sinha, however, argued that amendments were needed because the previous land laws were "regressive". He also targeted the present land holders as one "who just paid ₹5 to enjoy profit from ₹100 crore property".
- However, local land holders see the move as one which has opened the gateway "to outsiders to buy prime properties in J&K".

New land grants rules

- According to the new land laws, the **leases of current land owners will not be extended in case of their lease expiry.**
- Unlike the previous up to **99 years** of lease, the lease period has been **reduced to 40 years.**
- An expert committee will enlist all properties where lease had ended. It will be **e-auctioned** afresh.
- According to now-repealed land laws, no such land shall be granted on lease to the person, who is not a permanent residence of the State; except where the Government, for the reasons to be recorded, relax this restriction in the interest of industrial or commercial development or in the favour of a registered charitable society.

Immediate impact

- The new rules have hundreds of properties open for fresh auction, where outsiders could also participate.
- The government has not yet released the list of properties where lease has ended.
- The impact will be of great significance in tourist hotspot Gulmarg, where 56 hotels out of 59 have their leases expired already.
- Similarly, properties in Pahalgam, Srinagar and Jammu's Patnitop will go up for auction.

Cambridge Analytica scandal case

Relevance: Prelims



Why in news?

- Facebook owner Meta Platforms Inc has agreed to pay \$725 million to resolve a class-action lawsuit accusing the social media giant of allowing third parties, including Cambridge Analytica, to access users' personal information.
- The proposed settlement would resolve a long-running lawsuit prompted by revelations in 2018 that Facebook had allowed the British political consulting firm Cambridge Analytica to access data of as many as 87 million users.
- Lawyers for the plaintiffs called the proposed settlement the largest to ever be achieved in a US data privacy class action and the most that Meta has ever paid to resolve a class action lawsuit.

Cambridge Analytica

- Cambridge Analytica, now defunct, worked for Donald Trump's successful presidential campaign in 2016, and gained access to the personal information from millions of Facebook accounts for the purposes of voter profiling and targeting.
- Cambridge Analytica obtained that information without users' consent by deploying an app on its social media network that harvested data from millions of its users.

Chanda Kochhar's Videocon loans case

Relevance: None for exams



Why in news?

- Former ICICI Bank CEO and MD Chanda Kochhar and her husband Deepak Kochhar were arrested by the CBI in Videocon Loans case.
- Chanda Kochhar joined ICICI Bank in 1984 and became its Managing Director (MD) and CEO in 2009.
- Chanda Kochhar was awarded Padma Bhushan in 2011.

The Videocon loans case

- The allegation against Chanda Kochhar and her husband is that they received various kickbacks over her tenure in lieu of loans provided to Videocon group, many of which eventually turned into non-performing assets (NPAs).
- In 2019, the Enforcement Directorate said that Deepak Kochhar's NuPower Renewables received funding of ₹ 64 crore through a maze of shell companies from Venugopal Dhoot's Videocon group. This came only weeks after Videocon group got a ₹ 3,250 crore loan from ICICI Bank.
- Almost all of these loans became non-performing assets, causing a loss of ₹ 1,730 crore to the bank.

Fiji's new Prime Minister Sitiveni Rabuka

Relevance: Prelims



Hung Parliament

- The country has faced lot of **military coups and political instability**.
- The recent general election produced a **hung assembly** with the erstwhile ruling Fiji First party of Prime Minister Frank Bainimarama winning 26 seats in the 55-member Parliament, three short of majority.
- The People's Alliance of former Prime Minister and erstwhile current opposition leader Sitiveni Rabuka came second with 21 seats.

Coalition Government

- After the results were announced, the **opposition parties came together to unseat Mr. Bainimarama** and form a coalition government.
- Now, **Sitiveni Rabuka** has become Prime Minister of Fiji.
- Mr. Bainimarama, who came to power through a **coup in 2006** and later refashioned himself as a **democratic leader under a new Constitution that was introduced in 2013**.

Importance to India

- Fiji, the tiny archipelago nation in the South Pacific that has seen several coups since it **got independence from the British in 1970**.
- The **total population** of Fiji is around **900,000**, of which is **35.41** per cent is the population of **Fiji Indians**.

Intranasal vaccine gets clearance as booster option in Covid fight

Relevance: Prelims



Intranasal vaccine	Heterologous booster	Benefit
<ul style="list-style-type: none">- Incovacc is the world's first intranasal vaccine to be approved as a booster dose. The vaccine is delivered without a needle through the nose.- Ramping up its anti-Covid measures amid a surge in cases in China, the Government has added Bharat Biotech's intranasal vaccine Incovacc to its vaccination programme as a booster dose.	<ul style="list-style-type: none">- This is the second heterologous booster to be included in the vaccination programme after Corbevax in August.- A homologous booster shot involves the administration of the same vaccine as previously administered, while a heterologous booster shot involves the administration of a different vaccine.- Incovacc received the nod from the country's apex drug regulator as a primary dose in September and as a booster dose in November.	<ul style="list-style-type: none">- The intranasal vaccine triggers an immune response in the mucosal membrane in the nose and mouth.- Being an intranasal vaccine, BBV154 may produce local antibodies in the upper respiratory tract, which may provide the potential to reduce infection and transmission.

Akon City

Relevance: Prelims

- **Senegalese-American singer** Akon is building futuristic city, Akon City, in Senegal.
- Located **100 kilometres from Senegal's capital, Dakar**, Akon City will be built on 2,000 acres of land, gifted to the singer by the country's government in 2020.
- It also mentioned that the project will cost around \$6 billion.

Bomb cyclone

Relevance: Prelims

Why in news?

- The storm pummelling large areas of the United States and Canada is what forecasters call a “bomb cyclone.”
- While this kind of storm is not exceedingly rare, this one is very strong, with high winds that are bringing heavy snow or rain to many areas.

Formation

- Storms can form when a mass of low-pressure air meets a high-pressure mass.
- The air flows from high pressure to low, creating winds.
- What defines a bomb cyclone is how rapidly the pressure drops in the low-pressure mass — by at least 24 millibars in 24 hours.
- This quickly increases the pressure difference, or gradient, between the two air masses, making the winds stronger.
- This process of rapid intensification has a name: bombogenesis.
- Arctic front where westerlies and polar easterlies meet is the ideal place for bombogenesis.

Pradhan Mantri Garib Kalyan Anna Yojana not being extended

Relevance: Prelims



PMGKY

- The Government has decided **not to extend** the **Pradhan Mantri Garib Kalyan Anna Yojana**, (PMGKY), a scheme that ran between April 2020 to December 2022 (except for a short period in between) **after 2023**.
- The scheme provided **additional allocation of food grains**, i.e., rice or wheat from the central pool at five kilograms a month free of cost to beneficiaries under the National Food Security Act (NFSA).

How scheme proved beneficial?

- The scheme was introduced at the time of first lockdown during Covid-19. PMGKY **absorbed the shock of the pandemic for the extremely poor**.
- The schemes have provided **distress relief** to the most needy, helped the Government control its food buffer stocks better, and also **reduced wastage of procured food grains** at a time when procurement figures for rice and wheat by the Food Corporation of India remain high.
- The PDS and the PMGKY have not only enabled basic food security but have also acted as **income transfers for the poor by allowing them to buy other commodities** that they could not have afforded if not for the benefits.

'Brain-eating amoeba' kills South Korean man

Relevance: Prelims



Why in news?	Naegleria fowleri	Infection
<ul style="list-style-type: none">- South Korea reported its first case of infection from Naegleria fowleri or “brain-eating amoeba”.- The man stayed in Thailand for four months before entering South Korea on December 10.- A day later, he was taken to the emergency room after he began suffering from headaches, vomiting, stiffness in the neck and slurred speech.	<ul style="list-style-type: none">- Naegleria is an amoeba, a single-celled organism, and only one of its species, called Naegleria fowleri, can infect humans.- It was first discovered in Australia in 1965 and is commonly found in warm freshwater bodies, such as hot springs, rivers and lakes.	<ul style="list-style-type: none">- The amoeba enters the human body through the nose and then travels up to the brain.- This can usually happen when someone goes for a swim, or dive or even when they dip their head in a freshwater body.- In some cases, it was found that people got infected when they cleaned their nostrils with contaminated water.- Once Naegleria fowleri goes to the brain, it destroys brain tissues and causes a dangerous infection known as primary amebic meningoencephalitis (PAM).

The U.S. House Select Committee report on the January 6 Capitol attack

Relevance: Prelims



Capitol Building attack

- On **January 6, 2021**, following the defeat of then-U.S. President Donald Trump in the 2020 presidential election, a **mob** of his supporters **attacked the United States Capitol Building in Washington, D.C.**
- The United States Capitol, often called The **Capitol or the Capitol Building**, is the **seat of the legislative branch** of the United States federal government, which is formally known as the United States Congress.
- The mob was seeking to keep Trump in power by **preventing a joint session of Congress from counting the electoral college votes to formalize the victory of President-elect Joe Biden.**
- The attack resulted in the **death of five persons, injuries to 140 police personnel, and large scale destruction of property.**

Committee of US Congress

- The Committee was launched in **July 2021 by the U.S. Congress** for the purpose of investigating the armed attack on Capitol Hill on January 6, 2021, by former President Donald Trump's supporters.
- The Committee **found** that the attack took place because **Mr. Trump**, despite no evidential proof, **"purposely disseminated false allegations of fraud related to the 2020 presidential election"**. "These false claims provoked his supporters to violence on January 6."
- The Committee has also **recommended punishment** and **Nr. Trump be barred from ever holding federal or State office again.**

Recommendation to ban the sale of single cigarettes

Relevance: Prelims; Miscellaneous



Why in news?

- The **Parliamentary Standing Committee on Health and Family Welfare** in its latest report about cancer management, prevention and diagnosis observed that **oral cancer accounts for the highest proportion of cancer cases in the country.**
- To curb tobacco consumption, the committee made the recommendations.

Recommendations of the Committee

1. The committee recommended that the government **prohibit the sale of single sticks of cigarettes** and lay stringent penalties and fines on offenders.
2. It also suggests that the government **abolish all designated smoking areas in airports, hotels and restaurants** in addition to **encouraging a smoke-free policy in organisations.**
3. The Committee also found that **India has the lowest prices for tobacco products** and thus, it must look to **increase taxes** on them. The **revenue acquired** from additional taxation, it proposes, could be used for **cancer prevention and awareness.**
4. Additionally, the committee also **sought a ban on gutka and pan masala.** This is based on the observation that, in India, **more than 80% of tobacco consumption is in the form of chewing tobacco.**

GEOGRAPHY

Fog in Northern India

Relevance: Prelims & Mains Paper I; Geography



Why in news?

- For consecutive mornings, **dense fog has enveloped northwestern India**, including Delhi, Punjab, Haryana, parts of Uttar Pradesh, and parts of Rajasthan.
- The fog episodes, which follow a comparatively warm start to the winter, are likely to recur over the Indo Gangetic Plain for the next few days, keeping visibility poor in the hours before and after daybreak.

How does fog form?

- **Fog forms like clouds do — when water vapour condenses.** The presence of moisture and a fall in the temperature are key factors for the formation of fog.
- With the **land surface cooling down at night, the air close to the surface also cools down.** Since cooler air cannot hold as much moisture as warm air, the water vapour in the air condenses to form fog.
- Fog begins to **form in the early hours of the morning, when the temperature is at its lowest.**
- Fog can have “high spatial variability”, and its intensity can depend on factors like humidity, wind, and temperature.
- **Areas near water bodies**, for instance, may see **denser fog** because of the higher humidity.

Sources of moisture

- **Western disturbances**, which are storms that originate in the Mediterranean Sea, bring moisture-bearing winds to northwest India. This can result in increased moisture levels over the region.
- In the absence of western disturbances, **local moisture sources** like water vapour from rivers and soil moisture can also cause fog.
- According to a note issued by the IMD, the Indo Gangetic Plain is most vulnerable to fog occurrences, with major, weeks-long spells of dense fog in the months of December and January.

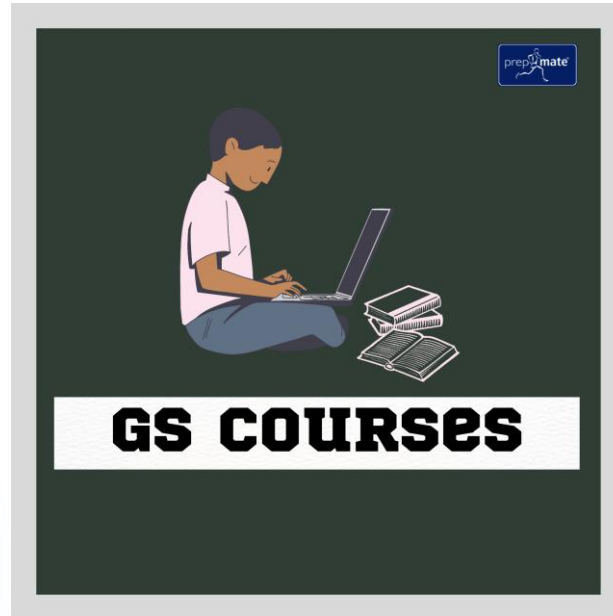
Types of Fog

- The fog affecting the **north-western India** is being characterized as “**radiation fog**”. Radiation fog (**or ground fog**) **episodes last for a few mornings on account of calm winds, resulting in localized fog formation**. Once the temperature increases **during the day, the fog dissipates**.
- In contrast, “**advection fog**” is **larger in scale both in terms of the area covered and duration**. Advection fog **forms when warm, moist air passes over a cool surface, causing water vapour to condense**. Advection fog mostly **occurs where warm, tropical air meets cooler ocean water**.
- If the wind blows in the right direction, sea fog can be **transported over coastal land areas**.
- Other kinds of fog include “**valley fog**” — which is the result of mountains preventing dense air from escaping, and in which the fog is trapped in the bowl of the valley and can last for several days — and “**freezing fog**”, which is the result of **liquid droplets freezing on solid surfaces**. **Cloud-covered mountaintops often see freezing fog**. These are not applicable to the Indo Gangetic Plain.

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