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Important News Articles

GS I

HISTORY, ART & CULTURE

1. Lahore Resolution

News:

- **Pakistan has decided to hold its National Day celebrations in New Delh**i again this year, which is observed on March 23, the day the Lahore Resolution was adopted in 1940 by the Muslim League.

Lahore Resolution:

- It wa**s adopted by the All-India Muslim League during its general session** in Lahore from March 22 to March 24, 1940, formally called for an independent state for India's Muslims.
- The resolution d**oes not include the word 'Pakistan' anywhere.**
- The Lahore Resolution was criticised by many Indian Muslims, like Abul Kalam Azad and the Deoband ulema led by Husain Ahmad Madani, who advocated for a united India.
- Geographically contiguous units are demarcated into regions which should be so constituted, with such territorial readjustments as may be necessary
    o That the areas in which the Muslims are numerically in a majority as in the North-Western and Eastern Zones of India
    o Should be grouped to constitute "Independent States" in which the constituent units shall be autonomous and sovereign."
- In other parts of India where th**e Mussalmans are in a minority**, adequate, effective and mandatory safeguards shall be specially provided in the constitution for them
    o And other minorities for the protection of their religious, cultural, economic, political, administrative and other rights and interests in consultation with them.

2. Copper Age cemetery discovered in Italy

News:

- Archaeologists in Italy have made a remarkable discovery of a 5,000-year-old cemetery that belonged to a Copper Age society

Copper Age:

- The Copper Age, or Chalcolithic time period, **is a period that spans from about 5,000 to 2,000 years ago, depending on the region.**
- It was a transitional phase from the **Neolithic period (the New Stone Age) to the Bronze Age.**
- It is characterized by the **emergence of metallurgy, especially the use of copper, along with stone tools.**
- It coincides with the beginnings of craft specialization, the development of agriculture, long-distance trade, and increased sociopolitical complexity.
- Farmers typically raised domestic animals such as sheep-goats, cattle, and pigs, a diet supplemented by hunting and fishing.
- Crops grown by Chalcolithic farmers included **barley, wheat and pulses.**
- A main identifying characteristic of the Chalcolithic period is polychrome painted pottery.
- **Houses built by Chalcolithic farmers** were constructed of stone or mudbrick.
- One characteristic pattern is a chain building, a row of rectangular houses connected to one another by shared party walls on the short ends.
- Another pattern, seen in larger settlements, is a set of rooms around a central courtyard, which may have facilitated the same sort of social arrangement.
- In archaeology, the first signs of massacres, battles and warrior burials begin appearing with the rise of the Copper Age.

- By the end of the Copper Age, people discovered that by adding tin to copper, a stronger and more durable metal could be created: bronze. From that point on, the Bronze Age begins.

3. Dandi March

News:

- The Prime Minister launched a **master plan for the Sabarmati Gandhi Ashram redevelopment project in Ahmedabad**, on the anniversary of the historic Dandi March.

Dandi March

- Mahatma Gandhi led a significant non-violent protest, t**he Dandi March (also known as the Salt March or Salt Satyagraha), in March-April 1930.**
- This act marked the beginning of a larger civil disobedience movement against British rule in India, which continued into 1931.
- The protest targeted the British monopoly on salt production and distribution.
- Laws prevented Indians from making or selling their own salt, forcing them **to buy expensive, heavily taxed, often imported salt.**
- This significantly **impacted the poor majority** who couldn't afford it.
- News reports in February 1930 announced Gandhi's plan to defy the salt laws.
- The protest would start on March 12th and culminate in Dandi with Gandhi symbolically breaking the Salt Act on April 6th.
- This date held significance as it marked the beginning of National Week, established in 1919.
- Gandhi meticulously prepared for the march, emphasizing strict adherence to non-violent principles.
- He recruited participants from his ashram, known for their disciplined commitment to his teachings.
- In an attempt to avoid confrontation, Gandhi wrote to the Viceroy seeking concessions, including tax reduction and abolishing the salt tax.
- However, the Viceroy dismissed these demands, prompting Gandhi to proceed with the march.

4. Vaikom satyagraha

News:

- Vaikom, a temple town in the princely state of Travancore, saw the start of a non-violent agitation on March 30, 1924 — **the first among temple entry movements that would soon sweep across the country.**
- The satyagraha foregrounded social reform amidst the growing nationalist movement, bringing Gandhian methods of protest to the state of Travancore.

Vaikom Satyagraha

- The princely state of Travancore had a feudal, militaristic, and ruthless system of custom-ridden government
  - some of the most rigid, refined and ruthless social norms and customs were seen in Travancore.
- Lower castes like the Ezhavas and Pulayas were considered polluting and various rules were in place to distance them from upper castes.
- These included a prohibition, not just on temple entry, but even on walking on the roads surrounding temples.

Contribution of Leaders:

- **In 1923, Madhavan** presented the issue as a resolution at the Kakinada meet of All India Congress Committee.
- Subsequently, it was taken up by the Congress Untouchability Committee formed by the Kerala Pradesh Congress Committee in January 1924.
- **Madhavan, K.P. Kesava Menon K. Kelappan** (also known as Kerala Gandhi) are considered the pioneers of the Vaikom Satyagraha movement.

Factors Leading to Satyagraha:

- Christian missionaries, supported by the East India Company, had expanded their reach and **many lower castes converted to Christianity to escape the clutches of an oppressive system** that continued to bind them.
- Most important of these was the introduction of a modern education system with free primary education for all – even lower castes.
- **Forces of capitalism** and these reforms created new social hierarchies – which were not always congruent with traditional ones.

5. Tripura's traditional tribal attire 'risa' gets GI tag

News:

Prelims Takeaway
• Risa Textile
• GI tag

- The traditional tribal attire of Tripura too has also been bestowed with the recognition of GI Tag, Chief Minister Dr Manik Saha said in Agartala on Sunday.

Risa Textile:

- It is a h**andwoven cloth used as a female upper garment** and also as headgear, a stole, or a present to express respect.
- It is woven in colorful designs and has a crucial social and religious significance.
- Adolescent Tripuri girls are first given a risa to wear in an event called Risa Sormani, around age 12 to 14.
- **Religious relevance:** The risa is used in religious festivals such as Garia Puja by tribal communities, a turban by men during weddings and festivals, a cummerbund over the dhoti, a head scarf by young girls and boys and a muffler during winters.
- It is presented as a **mark of honour to distinguished recipients.**
- Risa is common in almost all 19 indigenous tribal communities of Tripura.
- The traditional Tripuri female attire consists of three parts — risa, rignai and rikutu.
- Risa is a handwoven cloth used as a female upper garment.
- Rignai is primarily worn as the lower garment and literally means 'to wear'.
- Rituku is mainly used as a wrap, or like a 'chunri' or a 'pallu' of the Indian saree. It is also used to cover the heads of newly married Tripuri women.
- The complete Tripuri attire is claimed to have originated even before the time of the Manikya kings, who ruled Tripura for over 500 years starting from the 15th century.

6. Jaipur's Gulaal Gota

News:

Prelims Takeaway
• Geographical Indication (GI) tag
• Jaipur

- In some parts of Rajasthan's Jaipur, an old tradition will play out where **colours will be thrown through a unique medium called the "Gulaal Gota",** dating back around 400 years.

What is a Gulaal Gota?

- A Gulaal Gota is a small ball made of lac, filled with dry gulaal.
- Local artisans say that making Gulaal Gotas involves first boiling the lac in water to make it flexible.
- **Lac is a resinous** substance that is **secreted by certain insects.**
- It is also used to make bangles.
- Gulaal Gotas are made by **Muslim lac makers, called Manihaars**, only in Jaipur.

7. Panneer Thiratchai

News:

Prelims Takeaway
• Cumbum Valley
• GI TAG

- Cumbum valley—grapes city of south India—is very popular for Muscat Hamburg (panneer thiratchai) cultivation.
- It is noteworthy that the valley contributes up to 85% of panneer thiratchai production in the country.

The Panneer Grape: A Year-Round Treat from South India

- The Panneer grape is a special grape variety grown primarily in the Cumbum Valley of Tamil Nadu.
- Unlike most Indian grapes with a limited harvest season, Panneer grapes thrive year-round.
- This makes them a favorite among farmers for their quick growth and early maturity.

Panneer grapes offer several advantages:
- **Versatility: Th**ese grapes are perfect for making wine, spirits, jams, canned juices, and raisins.
- **Health Benefits**: Rich in vitamins, tartaric acid, and antioxidants, Panneer grapes are known to reduce the risk of chronic diseases.
- **Superior Taste**: They boast a delicious taste alongside their distinctive purplish-brown color.
- **Geographical Recognition**: In recognition of its unique qualities, the Panneer grape received a Geographical Indication Tag in 2023.
- The Cumbum Valley, nestled in the Western Ghats of Tamil Nadu, is aptly nicknamed the "Grapes City of South India.
- This region is the heartland of Panneer grape cultivation, with the Muscat Hamburg variety (another name for Panneer) accounting for nearly 85% of the area's vineyards.

8. World Monuments Fund Watch 2025

News:

	Prelims Takeaway
- The Eri (tank) network in the Kazhuveli watershed region in Villupuram district that **comprises an incredible network of tanks created thousands of years ago is to be proposed for nomination to the World Monuments Fund Watch 2025 programme.**	- World Monuments Fund Watch 2025 programme.

World Monuments Fund
- The World Monuments Fund (WMF) is a leading non-profit organization dedicated to protecting the world's most valuable historical and cultural sites.
- WMF goes beyond just saving buildings; **they tackle current issues through heritage preservation.**
- This includes challenges like climate change, ensuring all cultures are represented in conservation efforts, managing tourism's impact, and helping communities recover from crises.
- Their **headquarters are in New York City.**
- WMF India, established in 2015, is part of a global network.
- This aligns with India's policy of including heritage conservation in corporate social responsibility programs.
- One of WMF's key initiatives is the World Monuments Watch.
- Every two years, the Watch highlights 25 critical locations, raising awareness and support for these places and the communities that care for them.
- The Watch **aims to empower local efforts and improve the lives of people connected to these historical sites.**
- The 2025 Watch will focus on 25 such locations, each with a unique story of local importance with global significance.

9. AMASR Act

News:

	Prelims Takeaway
- ASI has decided to **delist 18 protected monuments** - ASI says the monuments have ceased to be of 'national importance'	- ASI - AMASR Act

The AMASR Act
- **Passed in 1958 and updated in 2010**, the AMASR Act is like a shield guarding India's most valuable historical sites and monuments.
- It allows the government to officially declare these places as being of "national importance.
- **Uttar Pradesh currently boasts the highest** number of these protected sites.
- After considering public input, the government can officially declare a monument worthy of this status through a public announcement.
- Once designated, the responsibility for care and upkeep falls to the Archaeological Survey of India (ASI) under the Ministry of Culture.

- They act as the guardians of these historical treasures.

Safeguarding the monuments

- To safeguard these monuments, the AMASR Act creates special zones around them.
- A 100-meter radius surrounding the monument becomes a "prohibited area" where construction is entirely banned.
- Beyond that, an additional **100-meter zone is designated as a "regulated area"** with stricter building guidelines.
- If a monument is deemed to have lost its national significance, the ASI has the authority to remove it from the protected list.
- However, this also means the ASI is no longer responsible for its upkeep.

10. Mohiniyattam

News:

Prelims Takeaway
- Mohiniyattam
- Classical dance

- Mohiniyattam, a captivating **classical dance from Kerala, boasts an ancient heritage.**
- Rooted in the Sanskrit text "Natya Shastra," this dance form likely originated between the 9th and 12th centuries CE, **traditionally performed by temple dancers known as Devadasis during the Chera dynasty.**

Mohiniyattam

- It is a solo dance characterized by its graceful femininity.
- It belongs to the Lasya style, emphasizing gentle movements and expressions of love and devotion to gods, particularly Lord Vishnu or his incarnation, Krishna.
- The performance combines dance, song, and storytelling.
- Songs are usually sung in Manipravalam, a blend of Sanskrit and Malayalam, while the music follows the Carnatic style. The dancer or a vocalist may perform the recitation.

Features

- Unlike many dances, Mohiniyattam focuses on elegant body sways rather than intricate footwork.
- Instead, it prioritizes expressive hand gestures (derived from the text "Hastha Lakshana Deepika") and subtle facial expressions to convey emotions.
- The dancers adorn themselves in traditional white or ivory cream saris, often embroidered with gold.
- The rhythmic accompaniment comes from instruments like the mridangam, madhalam, flute, veena, and cymbals.

INDIAN SOCIETY

11. World Bank's Women, Business and Law Index

News:

Prelims Takeaway
- World Bank
- Women, Business and Law Index

- **Legal rights for women worldwide** are significantly **lower than initially perceived,** according to a new report by the **World Bank Group**.

Key Highlights

- The **World Bank's Women, Business and Law Index** measures how laws and regulations in 190 countries affect women's economic opportunities.
- It uses a scale of 0 to 100, with 100 representing equal legal rights for men and women.
- The latest 2024 report highlights that **no country has achieved perfect gender equality in its legal framework.**
- When considering legal distinctions related to violence and childcare, women are found to have less than two-thirds or 64 per cent of the rights enjoyed by men, it has found.
  - Earlier estimates projected women had 77 per cent of the rights.
- This means **women everywhere still face legal barriers** compared to men in areas like mobility, work, pay, marriage, parenthood, business ownership, and property rights.

- **India's ranking improved to 113th globally,** but Indian women still have only 60% of the legal rights granted to men, which is lower than the global average of 64.2%.

12. Lisu and Singpho communities

News:
- Children of the **Lisu and Singpho communities in Arunachal Pradesh and Assam** are named according to the order they are born in the family, incorporating numbers into their names

A Lisu and Singpho Tradition
- In the Lisu and Singpho communities, names hold a special meaning.
- They don't just identify individuals, but also their place in the family based on birth order.
- The Lisu people, numbering around 5,000 in India, primarily reside in the hilly regions of Arunachal Pradesh.
- They can also be **found in China, Myanmar, and Thailand.**
- The Singpho population is more widespread, inhabiting parts of China, and having a **significant presence in India's Arunachal Pradesh (**Changlang and Namsai districts) and Assam (Tinsukia district).

13. India's falling fertility rate

News:
- **India will turn into an aging society in the next three decades,** according to a report in the Lancet.
- The medical journal has flagged that India's TFR, **the average number of children born to a woman will fall to 1.29 in 2050.**

Key Highlights
- One in five persons in India will be above the age of 60 in 2050.
- Last year, the UN Population Fund's (UNPF) India Ageing Report projected that the number of elderly in India will more than double from 149 million in 2022 to 347 million by mid-century.
- The challenges of a growing ageing population may well be decades away.
- However, the young country would do well to prepare for them in advance.

Demographic dividend challenge
- The Lancet report is a message that India's demographic dividend is not for perpetuity.
- Global experiences could be illustrative for the country's policymakers.
- **In China, for instance, the proportion of the working age population crossed 50 per cent** in 1987 and peaked around the middle of the last decade.
- This was also the period when the country registered impressive economic growth.
- By last year, China's TFR had dropped to a record low and its working-age population had contracted by more than 40 million.
- The Chinese government's pro-population-growth measures do not seem to be working.
- In fact, the last 60 years' history of developed nations suggests that once fertility rates fall below the replacement rate, it's almost impossible to set them back.
- At 1.9, India's TFR is currently just below the replacement rate, and according to UNPF calculations, the share of the country's working-age population will peak in the late 2030s, early 2040s.
- **Policymakers must, therefore, utilise this window to maximise India's demographic** dividend, as China did from the late 1980s till the early years of the last decade.
- No time must be lost in putting in place measures to overcome skill deficits and plug gaps in the knowledge economy.
- The challenge will also be to generate jobs outside of agriculture — they must not be in the low-paid informal sector.
- Going ahead, policymakers will also have to ensure adequate social security and healthcare provisions for the growing elderly population and create opportunities to harness their skills effectively.

Way forward

- The varying TFR rates across states in India could present the country's planners with a somewhat unique challenge — in fact, there are already signs that parts of south India and west India are graying faster than those in the north.
- Policymakers must be ready to understand the demographic shift in all its dimensions, and prepare for the change.

GEOGRAPHY

14. Lithium blocks in Argentina

News:

Prelims Takeaway
• Lithium
• KABIL

- The Mines Ministry has initiated the **process to on-board local partners to start exploration activities for lithium** in Argentina, officials said.

Key Highlights

- The State-owned KABIL (Khanij Bidesh India Ltd.) — a joint venture between Nalco, Hindustan Copper and Mineral Exploration Corporation Ltd. (MECL)
  o driving the process, acquired five lithium brine blocks, namely Cortadera-I, Cortadera-VII, Cortadera-VIII, Cateo-2022-01810132 and Cortadera-VI

Branch office

- KABIL will also set up a branch office in the Latin- American nation, a government official told businessline.
- India has obtained exploration and exclusivity rights for these five blocks. The agreement will allow us to evaluate, prospect and explore the reserves.
  o And, upon subsequent discovery of lithium minerals, rights for commercial production have also been allowed.
- The MoU states there is a five year time frame given to KABIL within which exploration activities across these blocks have to start failing which "hefty fines" would have to be paid.

Lithium

- It is an alkali mineral, also called 'white gold'. It is soft, silvery-white metal, the lightest metal of the periodic table.

Major Properties:

- High Reactivity
- Low Density
- Excellent Electrochemical Properties

Occurrence and Top Producers:

- Lithium is found naturally in various minerals, including spodumene, petalite, and lepidolite.
- It is extracted from these minerals and refined into lithium metal or its compounds.
- The top producers of lithium are **Australia, Chile, China, and Argentina.**
- In 2022, Australia was the world leader in terms of lithium mine production. Chile and China ranked second and third.
- The major lithium reserves in India are concentrated in states like **Karnataka, Rajasthan, Jharkhand, and Andhra Pradesh.**
- These states host significant deposits of lithium-bearing minerals, offering substantial potential for extraction

15. Total Solar Eclipse 2024

News:

Prelims Takeaway
• Corona
• Eclipse

- The world will **witness a captivating solar eclipse in 2024 that will make the Sun disappear.**
- This will be a rare celestial event as it will completely cover the Sun, casting a nocturnal ambiance during daylight hours.

Total Solar Eclipse:

- A total solar eclipse is a condition **when the Moon passes between the Sun and the Earth** and completely blocks the Sun's disk, casting a huge shadow on the surface.
- People viewing the eclipse from locations where the Moon's shadow completely covers the Sun–known as the path of totality–will experience a total solar eclipse.
- Weather permitting, individuals along the path of totality will have the opportunity to observe the Sun's corona, its outer atmosphere typically obscured by the Sun's bright face.
- The Sun's corona, **the outermost layer of its atmosphere extending millions of kilometers into space, is exclusively visible during a solar eclipse.**
- Appearing as a faint, pearly-white halo encircling the darkened disk of the Sun, it becomes observable only during this celestial event.
- This solar eclipse will be characterised by a phenomenon known as totality - a condition when viewers may be able to see the chromosphere (a region of the solar atmosphere, appearing as the thin circle of pink around the Moon) along with the corona.
- The totality will offer a rare view where you can momentarily see the stars during the time as the surroundings go completely dark.
- It will also be marked by a dip in air temperatures.

16. Africa for critical minerals

News:

Prelims Takeaway
• Cobalt
• lithium

- India is looking at Africa for minerals, including cobalt, and other critical minerals
- The country is still engaging with Australia for lithium blocks

Critical minerals:

- **Identified**: India has identified 30 crucial minerals essential for various industries, including clean energy, defense, and fertilizers.
- **Significance**: These minerals are vital for achieving clean energy goals and national development. The growing demand for electric vehicles and renewable energy creates a massive need for these resources.
- **Global demand**: The global demand for critical minerals is expected to skyrocket due to climate change mitigation efforts, making strategic planning and resource security crucial for India.

Challenges and concerns:

- **Concentration**: Critical mineral reserves are heavily concentrated in a few countries, mainly China, creating vulnerabilities in global supply chains due to uneven distribution and processing capabilities.
- **Chinese dominance**: China's dominance in refining critical minerals and rare earths raises concerns about its potential to influence global supply chains and technological advancements through its monopoly.
- **Dependency risks**: India's ambitious clean energy goals rely heavily on critical minerals, particularly for battery manufacturing and renewable energy infrastructure.
- Despite efforts to secure resources through agreements with other countries, India remains heavily reliant on imports, posing challenges for domestic industries and technological advancements.

17. El Nino leaves Malawi and region on the edge of a hunger crisis

News:

Prelims Takeaway
• Map Based question
• El nino

- The southern African nation of Malawi has **declared a state of disaster caused by drought in 23 of its 28 districts.**
- Its president has also said Malawi urgently needs more than $200 million in humanitarian assistance, less than a month after neighbouring Zambia also appealed for help.

Key Highlights

- A third country, Zimbabwe, has also seen much of its crops decimated

- And is considering following suit and declaring a drought disaster, underscoring concerns raised by the U.N. World Food Programme (WFP) late last year
- That numerous nations in southern Africa were on the brink of a hunger crisis because of the impact of the ongoing El Niño weather phenomenon.
- Last month was the driest February in 40 years for Zambia and Zimbabwe, according to the WFP's seasonal monitor while Malawi, Mozambique, and parts of Angola had "severe rainfall deficits.
- El Niño is a natural, recurring weather phenomenon that **affects weather worldwide, including causing below-average rainfall in southern Africa.**
- Some scientists say climate change is making **El Niños stronger and their impacts more extreme.**
- The 2015-2016 El Niño brought a severe drought to southern Africa, the region's worst in 35 years, for example-
  - Before the national disaster announcements by Malawi and Zambia, the WFP
  - USAID had already launched a programme to feed 2.7 million people in rural Zimbabwe facing food shortages — nearly 20% of that country's population.
- **Zambia** is also currentl**y experiencing a major cholera** outbreak as well.

18. Nor'wester hits Jalpaiguri

News:

- At least five persons were killed and around 30 were injured after a Nor'wester hit parts of Jalpaiguri district of north Bengal, officials said.

Prelims Takeaway
• Kal Baisakhi
• Thunderstorm

Kal Baisakhi or Nor'wester

- It originates in the Chhotanagpur Plateau, in and around the cities of Ranchi and Jamshedpur.
- In times of incursion of moist air in these elevated regions, amidst high temperatures, these extremely destructive thunderstorms occur.
- The first sign of nor 'wester is a low bank of dark cloud in the northwest region, the upper outline of which has the appearance of an arch.
- It approaches slowly at first and then rapidly with a strong gust or squall.
- Sometimes the wind blows with almost hurricane force.

Which are the states affected by Kal Baisakhi?

- Kal Baisakhi originates over Bihar and Jharkhand area, moves eastwards and strikes West Bengal and Odisha.

What are the benefits of Kal Baisakhi?

- Kal Baisakhi definitely brings destruction in terms of lightning, thunderstorm, hailstorm and rainfall.
- However, it is extremely helpful for the pre-Kharif crops like jute, paddy and a large number of vegetables and fruits.
- It gives the much-desired relief after mid-day heat and pours well on the thirsty soil for development of crops.

Which months are affected by Kal Baisakhi?

- Kal Baisakhi is a common occurrence during April and May.
- However, few events of Kal Baisakhi in March too cannot be ruled out.

GS II

POLITY & GOVERNANCE

19.   Stay orders of HCs and Supreme Court's Power

News:

- Recently, the Supreme Court addressed a reference concerning the validity of a 2018 judgement in the **Asian Resurfacing of Road Agency Vs CBI.**
- This case questioned the **automatic expiration of interim stay orders** passed by **High Courts** after six months unless extended.

The Judgement

- The **Supreme Court cannot arbitrarily overturn well-considered interim orders of High Courts** staying criminal and civil proceedings.
- The apex court lacks the authority to impose a **blanket rule** that a stay order issued by a High Court would **expire after six months.**
- Such constraints would **encroach upon** the **jurisdiction of High Courts** under Article 226 of the Constitution.
- Further, the judgement clarified that the SC should refrain from **imposing fixed timelines for the disposal of cases** by High Courts or trial courts.
  - Orders fixing the outer limit for the disposal of cases should be passed only in exceptional circumstances to meet extraordinary situations.
- The SC's authority under **Article 142** to ensure complete justice does not extend to **excessive interference with orders** passed by High Courts.
- Article 142 can be invoked only to deal with **extraordinary situations** for doing complete justice between the parties before the court.

20.   Place for Madiga member in Scheduled Caste panel

News:

- The Union government has chosen to constitute the National Commission for Scheduled Castes **(NCSC) by ensuring the presence of at least one member from the Madiga community**
- Community has a large presence in Telangana and Andhra Pradesh.

Key Highlights

- the government formed an **internal committee for sub-categorisation of Scheduled Castes** in response to the decades-long demand of the Madiga community in the two States.
- The Madiga community has argued that despite being among the most populous of the SCs
  - it is routinely crowded out of benefits and reservation by the relatively dominant Mala community.
- While the Supreme Court is yet to decide on whether SC quotas can be sub-categorised, the committee is looking into ways of targeting benefits towards this section of the Scheduled Castes.

The Madiga community

- It constitutes at l**east 50% of the total Scheduled Castes in Telangana.**
- The 2011 census puts the **total SCs at a little over 15% of** the population of the State.
- The Madiga community had been struggling since **1994 for the sub-categorisation,** and the Prime Minister's announcement was considered an important step in that direction.

Constitution Order of 1950

- It initially provided for recognising only Hindus (with exceptions) as SCs, to address the social disability arising out of the practice of untouchability.
- **The Order was amended in 1956 to include Dalits who had converted to Sikhis**m (in entirety) and once more in 1990 to include Dalits who had converted to Buddhism.

- **Both amendments were aided by the reports of the Kaka Kalelkar Commission** in 1955 and the High-Powered Panel (HPP) on Minorities, Scheduled Castes and Scheduled Tribes in 1983 respectively.

21. Democracy Report 2024

News:

Prelims Takeaway
• Democracy
• Electoral Autocracy

- India, which was **downgraded to the status of an "electoral autocracy"** in 2018
- she has **declined even further on multiple metrics** to emerge as "one of the worst autocratisers", according to the "**Democracy Report 2024**" released by the Gothenburg-based V-Dem Institute.

Key Highlights

- The report categorizes countries into four regime types based on their score in the Liberal Democratic Index (LDI): Liberal Democracy, Electoral Democracy, Electoral Autocracy, and Closed Autocracy.
- India, with 18% of the world's population, accounts for about half of the population living in autocratising countries," the report said.
- Noting that almost all components of democracy were getting worse in more countries
  - than they were getting better, the report singled out freedom of expression, clean elections
  - and freedom of association/civil society as the three worst affected components of democracy in autocratising countries.
- South and Central Asia regressed significantly, with the level of "liberal democracy" enjoyed by the average Indian now "down to levels last seen in 1975
  - when Indira Gandhi declared a state of emergency in India".
- As per the V-Dem classification, a liberal democracy is one where, in addition to the requirements of electoral democracy such as regular free and fair elections, mechanisms for judicial independence and constraints on executive overreach are robust, alongside rigorous protection of civil liberties and equality before law.
- With regard to India, the report said that a third consecutive term for the BJP and Mr. Modi "could lead to further autocratisation given the already substantial democratic decline under Modi's leadership and the enduring crackdown on minority rights and civil society".

22. Center-State Powers to Levy Taxes

News:

Prelims Takeaway
• MMDRA

- The Supreme Court asked the Centre as to why the statute does not say in clearer terms that **only Parliament has the power to impose tax on minerals and states are denied the authority to levy such an action.**

Key highlights

- **Under Section 9 of the MMDRA,** the central government has the power to fix royalty
- He said the fixation of rates by the Centre is not a unilateral but cooperative process involving the states, while also considering the supervening objective of mineral development in public interest, keeping the nation as an unit.
- **The issue arose after the 1989 verdict** in the case of India Cements Limited versus State of Tamil Nadu wherein a seven-judge bench of the apex court held that royalty was a tax.
- However, a five-judge bench of the apex court ruled in 2004 in the State of West Bengal versus Kesoram Industries Limited case that there was a typographical error in the 1989 verdict and that royalty was not a tax.
- The dispute was then referred to a larger nine-judge bench.
- The top court is hearing a batch of 86 appeals filed by mining companies, public sector undertakings (PSUs) and state governments arising from conflicting verdicts passed by different high courts on the issue.

23. SBI submits electoral bond data to Election Commission

News:

	Prelims Takeaway
	• Electoral Bond
	• SBI

- A day after the Supreme Court directive, the **State Bank of India (SBI) submitted to the Election Commission (EC) the details of electoral bonds purchased** and encashed since April 12, 2019.

Key Highlights

- The Supreme Court, while striking down the **electoral bonds scheme as unconstitutional,** had directed the SBI to submit electoral bonds data to the EC.
- The top court dismissed a plea filed by the SBI seeking time till June 30 to submit the data.
- The court asked that the data be submitted to the EC
- The **first sale** of electoral bonds took place in **March 2018.**
- Bonds worth ₹16,518 crore had been issued by the SBI since the inception of the scheme in 2018.

Electoral Bonds

- Electoral **bonds are money instruments like promissory notes**, which can be bought by companies and individuals in India from the **State Bank of India (SBI**)
- It is **donated to a political party, which can then encash these bonds.**
- The **bonds are only redeemable in the designated account of a registered political party.**
- A person **being an individual can buy bonds, e**ither singly or jointly with other individuals.

Electoral Bond Scheme

- E**lectoral Bonds Scheme was launched in 2018 to** cleanse political funding in India.
- The central idea behind the electoral bonds scheme is **to bring about transparency in electoral funding in India.**
- **The government had described the scheme as an "electoral reform" in a country moving towards a "cashless-digital economy".**

24. Cauvery panel to meet in Puducherry

News:

	Prelims Takeaway
	• Cauvery Water Dispute
	• Cauvery river

- The **Cauvery Water Regulation Committee (CWRC) will meet recently,** in Puducherry
- This is the second time the committee will hold its deliberations in the Union Territory, where it last met in January 2020.

Key Highlights

- Though the Cauvery Water Management Authority directed **Karnataka to ensure environmental flows in the lean months of the year**
- the upper riparian State has not been able to comply with the order as its capital, Bengaluru, is in the grip of a severe water crisis.
- Meanwhile, the negotiation committee on the Pennaiyar water dispute between Tamil Nadu and Karnataka, which met last month, has sought data from the State

Pennaiyar water dispute

- In 2018, **Tamil Nadu filed an original suit against Karnataka** for constructing check dams and diversion structures **on the Pennaiyar river.**
- On November 30, 2019, Tamil Nadu formally requested the Union government to constitute a Tribunal for adjudication of disputes over the waters of the river.
- In mid-December, the court gave the Centre three months to constitute the tribunal to resolve the dispute between Tamil Nadu and Karnataka.

Cauvery Water Dispute

- The Cauvery Water Dispute is a dispute between the Indian states of Karnataka and Tamil Nadu, along with Kerala and Puducherryover the sharing of the Cauvery River's waters.
- It involves issues of water allocation and usage rights, with historical agreements, tribunals, and court rulings playing a significant role in its resolution.

Crop cover

A look at paddy coverage in Tamil Nadu*

Region	Normal area	Target	Coverage on March 11, 2024	Coverage on March 13, 2023
			2023-24	2022-23
Samba/Thaladi/Pishanam				
Delta	8.914	13.263	11.927	13.528
Non-delta	21.716	21.902	21.055	22.984
TOTAL	**30.63**	**35.165**	**32.982**	**36.512**

* In lakh acres | Source: Department of Agriculture and Farmers' Welfare, Tamil Nadu government

25. SC to hear plea to include CJI on EC selection panel

News:
- The Supreme Court agreed to urgently a plea which said the **Centre could take "unfair advantage" while filling the two vacancies of Election Commissioners (**ECs) in the Election Commission of India (ECI)

Key Highlights
- Chief Justice of India (CJI) should be brought back on board the high-profile selection committee headed by the Prime Minister for appointments of ECs to the top poll body
    - as directed by a landmark Supreme Court judgment in the Anoop Baranwal case

'Free and fair elections'
- Now, the Executive has the ability to **appoint two Election Commissioners which can give an unfair advantage to the Executive.**

Prelims Takeaway
• The Chief Election Commission and other Election Commissions (Appointment, Conditions of Service and Term of Office) Act, 2023
• Election commission

- The role of the Election Commission is critical in ensuring free and fair elections and therefore, the appointments must also be seen to be fair and free from any bias or latches to the government of that time

Anoop Baranwal versus Union of India
- a Constitution Bench ordered the Chief Election Commissioner (CEC) and two ECs to be appointed by the President on the advice tendered by a committee
  - Consisting of **Prime Minister, Leader of Opposition in the Lok Sabha or the leader of the single largest party in Opposition and the CJI.**
- However, the government had enacted a new law — **The Chief Election Commission and other Election Commissions (Appointment, Conditions of Service and Term of Office) Act, 2023** to countermand the judgment.
- The law had replaced the CJI with a Cabinet Minister on the selection committee, giving the Centre a dominant role in the appointment process.

Matter of concern
The NGO's plea before the Supreme Court has asked for these specific interventions

- Stay the implementation of Section 7 of The Chief Election Commission and other Election Commissions (Appointment, Conditions of Service and Term of Office) Act, 2023

- Direct the Union of India to appoint the vacant positions of Election Commissioners, till the pendency of the case in the Supreme Court, in accordance with the Selection Committee laid down by the *Anoop Baranwal vs Union of India* judgment of March 2023

- Bring the CJI back on board the high-profile selection committee headed by the Prime Minister for appointment of ECs

26. Uttarakhand Bill on Uniform Civil Code

News:
- **Uttarakhand has now become the first State** in Independent India to **have a Uniform Civil Code** after the President gave assent to the UCC Bill, 2024.

Key Highlight
- The Bill, which has kept tribal people out of its ambit, has banned practices like **halala, iddat, and talaq** (customs related to marriage and divorce in Muslim Personal Law).

Prelims Takeaway
• Article 44
• UCC

- It ensures that women are given **equal rights in matters related to property and inheritance rights.**
- **Under Article 201** of the 'Constitution of India', the President gave assent to the 'Uniform Civil Code Uttarakhand 2024' Bill passed by the Uttarakhand Legislative Assembly

Uniform Civil Code (UCC)

- UCC provides for one law for the entire country across all religious communities in their personal matters such as marriage, divorce, inheritance, adoption etc.
- **UCC is defined in Article 44** as part of the Directive Principles of State Policy (DPSP), in part of Part IV of the Constitution.
- **Article 44** - It states that 'The State shall endeavour to secure for the citizens a Uniform Civil Code throughout the territory of India'.
- UCC aims to enforce a uniform legal framework to all citizens, irrespective of their religion.

27. Panel recommends simultaneous polls

News:

- The **high-level committee headed by former President** has recommended **simultaneous elections** to the Lok Sabha and State Assemblies as the first step

Key Highlights

- Committee also recommended **holding municipal and panchayat polls within 100 days** of the **general election** in the next phase.
- **The 22nd Law Commission**, which is examining the simultaneous polls issue, is also expected to submit its report to the Law Ministry anytime now and recommend the same from the 2029 general election cycle.
- The Kovind panel report will **not have any bearing on the upcoming Lok Sabha election**.
- The panel recommended that fresh elections could be held to constitute a new Lok Sabha in the event of a hung House or a no-confidence motion
  - or any such event but the tenure of the House will be only for the unexpired [remaining] term of the immediately preceding full term of the House
- When fresh elections are held for Legislative Assemblies, then such new Assemblies — unless sooner dissolved — shall continue up to the end of the full term of the Lok Sabha.
- To effect these changes, the panel has recommended amendments to **Article 83 (duration of Houses of Parliament) and Article 172 (duration of State legislatures**) of the Constitution.

Ratification by States

- The panel recommended suitable amendments to Article 324A of the Constitution to allow simultaneous elections in panchayats and municipalities;
- Article 325 to allow the Election Commission of India (EC), in consultation with State election authorities, to prepare a common electoral roll and voter ID cards.
- Both these constitutional amendments would require ratification by the States, the report said.
- Presently, the EC is responsible for Lok Sabha and Assembly polls, while local body polls for municipalities and panchayats are managed by State election commissions.

Prelims Takeaway
- Election Commission of India
- Article 172

28. Election Symbols

News:

- **The Madras High Court restrained expelled AIADMK leader** from using the party's flag, 'Two Leaves' symbol and official letterhead.

Election Symbols

- **The Election Symbols (Reservation and Allotment) Order, 1968** empowers the Election Commission to recognise political parties and allot symbols.
- The EC is the only authority to decide issues on a dispute or a merger under the order.
  - The Supreme Court (SC) upheld its validity in **Sadiq Ali and another vs. ECI** in 1971.
- It applies to disputes in recognised national and state parties.

Prelims Takeaway
- The Election Symbols (Reservation and Allotment) Order, 1968

- For splits in registered but unrecognised parties, the EC usually advises the warring factions to resolve their differences internally or to approach the court.
- In almost all disputes decided by the EC so far, a clear majority of party delegates/office bearers, MPs and MLAs have supported one of the factions.
- **Before 1968, t**he EC issued notifications and executive orders under the Conduct of Election Rules, 1961.
- **The splinter group of the party** - other than the group that got the party symbol - had to register itself as a separate party.

29. SC Strike down Electoral Bonds Scheme

News:
- The Supreme Court strike down the Electoral Bonds Scheme with significant reason
- scheme **violates the right to information under Article 19(1)(a) of the Constitution**
- It highlighted the "deep association" between money and politics, and how economic inequality contributes to political inequality
- by increasing the possibility of quid pro quo arrangements for those with the ability to contribute larger amounts to political parties.
- These arrangements, the court said, could result in favorable policy changes and government licenses which the voters have a right to know about
- public interest in free and fair elections must outweigh the private interest of donor confidentiality.

Prelims Takeaway
- Finance Act, 2017
- Section 29C of the Representation of People Act, 1951

Argument in favor of electoral bond
- By protecting the confidentiality of donors, the apprehension of political retribution would also be greatly reduced
- **the right to information under Article 19(1)(a) can only be restricted on the grounds listed in Article 19(2)**, which does not include the purpose of curbing black money,

Section 29C of the Representation of People Act, 1951
- **Before it was amended by the Finance Act, 2017**, required all political parties to declare any contributions higher than Rs. 20,000.
- The amendment to the section, which exempted political parties from making declarations for donations received through electoral bonds, **was struck down by the court.**

30. Border march in Ladakh to mark land lost to China

News:
- Around 10,000 people from L**adakh will march to the border along China to showcase how much land has been lost to the neighbouring country,** climate activist and education reformer Sonam Wangchuk said.

Prelims Takeaway
- Map based question
- Ladakh

Key Highlights
- The march would be taken out in the **Finger area (north and south bank of Pangong Tso),** Demchok, Chushul among others along the Line of Actual Control with China.
- "The march will also highlight the areas, prime pasture lands, that are being turned into solar parks.
- On one hand, nomads are losing their land to corporates who are coming to set up their plants, maybe mining in future
- on the other hand they are losing pasture land to China which is encroaching from the north, the Chinese have captured huge chunks of land in the last few years,"

No-go areas
- After the June 15, 2020 incident in Galwan where 20 Indian soldiers were killed in violent clashes with the Chinese People's Liberation Army
- Several rounds of talks between the two armies have taken place leading to disengagement and creation of buffer zones or no-go areas.

Significance of Ladakh
- Ladakh has **Zanskar ranges in the south and Karakoram ranges in the north.**

- It also shares **borders with both Pakistan and China.**
- Its prime location makes it significant and **strategically important for India's national security.**
- Since ancient times till partition between India and Pakistan, Ladakh remained an **important point along the silk route.**
- The passes of Ladakh connected some of the **economically significant regions of the world, including Central Asia, South Asia and China.**
- Historically, Ladakh includes Gilgit, Hunza, Kargil, Leh and Skardo.
- Despite the harshness of the land and climate, its location made it a desirable strategic location
  o which led to several wars fought by the then empires including Russian, Chinese, Tibetan, Persian and Indian to dominate the passes of the region.

31. National Food Security Act

News:
- The Supreme Court recently, took exception to the delays in the implementation of its April 2023 order to provide ration cards to about eight crore migrant workers

Prelims Takeaway
• Antyodaya Anna Yojana
• eShram portal

Key Points
- These migrant workers are registered in the eShram portal **but not covered under the National Food Security Act.**
- The portal has 28.6 crore registrants.
- Of this, 2**0.63 crore are registered on ration card data.**
- A Bench directed ration cards to be given to the remaining eight crore migrant and unorganized sector workers registered with the eShram portal in two months.

NFSA
- **Up to 75% of the rural and 50% of the urban** populations are covered by NFSA through the A**ntyodaya Anna Yojana (AAY) scheme and the priority households.**
- Priority homes are entitled to 5 kilograms of food per person per month.
- While AAY households represent the lowest of the poor or are entitled to 35 kilograms per family per month.
- The former Planning Commission (now Niti Aayog) **used the NSS household consumption survey data** for 2011-2012
  o To estimate the state-wise coverage under the NSSA.
- The task of identifying potential households within the scope under TPDS established for each state is to be completed by states/UTs.
- The development of a basis for selecting priority households and their actual **verification falls under the purview of the state government's duties.**

32. SC stays govt. notification on establishing fact check unit

News:
- The Supreme Court recently, stayed a government notification establishing the Press Information Bureau's Fact Checking Unit (PIB FCU)

Prelims Takeaway
• PIB
• The Information TechnologyRules, 2021.

- PIB was to act as a "deterrent" against the creation and dissemination of fake news or misinformation regarding the "business" of the Centre.

Key Highlights
- The Bombay High Court took a final call on the validity of provisions of Rule 3(1)(b)(v) of the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.
- The Supreme Court did not comment on the merits or legality of Rule 3(1)(b)(v), saying the impact of the provision on the fundamental rights to free speech and expression would be analysed by the High Court.

Press Information Bureau
- PIB, is a nodal agency of the Government of India under Ministry of Information and Broadcasting.

- Based in National Media Centre, New Delhi,Press Information Bureau disseminates information to print, electronic and web media on government plans, policies, programme initiatives and achievements.
- It is available in 14 Indian official languages, which are Dogri, Punjabi, Bengali, Oriya, Gujarati, Marathi, Meitei (Manipuri)
  - Tamil, Kannada, Telugu, Malayalam, Konkani and Urdu, in addition to Hindi and English, out of the 22 official languages of the Indian Republic.
- The head of PIB is also the Official Spokesperson of the Government of India and holds the rank of Principal Director General (Special Secretary equivalent).

33. Enforcement Directorate (ED)

News:

Prelims Takeaway
- Enforcement Directorate

- Delhi Chief Minister and Aam Aadmi Party (AAP) leader Arvind Kejriwal was arrested by the Enforcement Directorate (ED) in excise policy-linked money laundering case

Enforcement Directorate (ED)
- The Enforcement Directorate was established in 1956 as an 'Enforcement Unit' under the Department of Economic Affairs.
- Later, in 1957, this Unit was renamed as 'Enforcement Directorate'.

Administrative control
- Presently, it is under the administrative control of the Department of Revenue (Ministry of Finance) for operational purposes.

Functions
- ED is responsible for enforcement of the Foreign Exchange Management Act, 1999 (FEMA), and certain provisions under the PMLA.
- ED has the power to attach the asset of the culprits found guilty of the violation of FEMA.
- It has also been empowered to undertake, search, seizure, arrest, prosecution action, and survey, etc. against the offences committed under PMLA.

Appointment of Director of ED
- The ED Director is appointed by the central government on the recommendation of a committee:
- chaired by the Central Vigilance Commissioner and members of Vigilance Commissioners, Home Secretary, Secretary DOPT and Revenue Secretary.

34. CM while in custody

News:

Prelims Takeaway
- ED
- CM

- Questions are being asked about whether the **Delhi Chief Minister can continue to occupy a public office** that demands a high degree of morality after being remanded in judicial custody.

Key highlights
- Earlier judgments in the Supreme Court and High Courts have concluded that constitutional morality, good governance, and constitutional trust are the basic norms for holding a public office.
- A recent judgment by the Madras High Court in **S. Ramachandran versus V. Senthilbalaji** referred to arguments made in court on
  - whether a Minister must forfeit his right to occupy a public office that demands a high degree of morality if he is accused of a "financial scandal".
- a former Tamil Nadu Minister, was arrested by the ED on money-laundering charges last year.
- He continued to be a Minister without portfolio while he was in judicial custody.
- The arguments referred to a 2014 Constitution Bench judgment of the Supreme Court in **Manoj Narula versus Union of India**

o   Which had held that the basic norm for holding a public office was constitutional morality, that is, to avoid acting in a manner contradictory to the rule of law.
* "Political compulsion cannot outweigh the public morality, requirements of good/clean governance and constitutional morality," the High Court had observed.

35. Preventive detention

News:

Prelims Takeaway	

* The Supreme Court has set aside a Telangana High Court order rejecting a detenu's appeal.**preventive detention is a draconian measure**
* It Observed that and any such move based on a capricious or routine exercise of powers must be nipped in the bud

Prelims Takeaway
* Preventive Detention
* Punitive detention

Preventive Detention
* India balances the need for security with individual liberties through preventive detention laws.
* These laws allow authorities **to hold people without a trial if they believe those people might commit crimes in the future.**
* The Indian Constitution protects people from being arrested unfairly.
* It allows preventive detention, but with safeguards.
* For instance, detention can't last more than three months without a review board finding a reason to extend it.
* Detainees also have the **right to know why they're being held** (unless revealing that reason would harm public safety).
* The power to make these laws is divided.
* The national government can make laws for national security reasons, while both national and state governments can make laws for public order or essential services.
* Examples of preventive detention laws in India include **the National Security Act and state-specific Public Safety Acts.**
* These laws allow authorities to detain people for up to a year without charges, but with a review process.

36. SC raises concern over the rich gagging media

News:

* The Supreme Court has highlighted the problem of the **affluent getting pre-trial injunctions from courts against the media and civil society**, gagging free speech and the public's right to information about important affairs.

Prelims Takeaway
* An interim injunction
* SLAPP

Key highlights
* "The constitutional mandate of protecting journalistic expression cannot be understated, and courts must tread cautiously while granting pre-trial interim injunctions," the top court said.
* The Bench drew the spotlight on the **phenomenon of 'SLAPP suits' or 'Strategic Litigation against Public Participation'** gaining attention across jurisdictions.
* It is an umbrella term used to **refer to litigation predominantly initiated by entities that wield immense economic power against members of the media** or civil society
   o   to prevent the public from knowing about or participating in important affairs in the public interest," the court noted.
* With ex-parte injunction preventing a media outlet from publishing the article or material anytime soon or even in the distant future
* a case — which could include expensive allegations of libel by the cash-rich entity against the media or civil society — tends to drag on.
* It said courts should grant pre-trial injunctions only in exceptional cases.
* The importance of leaving free speech unfettered is a strong reason for dealing most cautiously and warily with the granting of interim injunctions, the court underscored.

An interim injunction
- It is provisional measure sought during legal proceedings, before trial.
- An injunction is an order of the court that requires a party either to do a specific act, or to refrain from doing a specific act.
- Interim injunctions are intended to prevent injustice pending trial.

37. Child accused of POCSO offence to be tried as per the JJ Act

News:

Prelims Takeaway
• JJ act 2015
• POCSO

- The Kerala High Court has held that a child charged with the **offenses under the Protection of Children from Sexual Offences (POCSO) Act, 2012**
  - Is to be prosecuted as per the provisions of the Juvenile Justice (Care and Protection of Children) (JJ) Act.

Key Highlights
- The court observed that **'Child' was not defined in the POCSO Act whereas it is defined in the JJ Act, 2015.**
- Section 2(12) of the JJ Act, defined a child to be a person who has not completed 18 years of age.
- The court added that "aforementioned definitions would ensure an inference that a child can be an offender of sexual offences as defined in the POCSO Act.
- Needless to say, when a child is the offender, he cannot be tried in the ordinary criminal court, but can be dealt with only as provided under the provisions of the JJ Act".

Juvenile Justice Act, 2015
- Parliament introduced and passed the Juvenile Justice (Care and Protection of Children) Act in 2015 to replace the Juvenile Delinquency Law and the Juvenile Justice (Care and Protection of Children Act) 2000.
- The Act offered provisions to allow **trials of juveniles in the age group of 16-18 years a**s an adult who were found to be in conflict with the law, especially heinous crimes.
- **The Act replaced the Hindu Adoptions and Maintenance Act (**1956) and Guardians of the ward Act (1890) with more universally accessible adoption law.
- The Act enabled smooth functioning of adoption procedures for orphans, surrendered, and abandoned children
  - while making the Central Adoption Resource Authority (CARA) the statutory body for adoption-related matters.

Child Care Institutions (CCI)
- All Child Care Institutions, whether run by the State Government or by voluntary or
  - non-governmental organisations are to be mandatorily registered under the Act within 6 months from the date of commencement of the Act.

Juvenile Justice (Care and Protection) Amendment Act 2021
- Crimes against children which are mentioned in the chapter "Other Offences Against Children" of the JJ Act, 2015 that allow an imprisonment between three and seven years will be deemed "non-cognisable".

Adoption:
- Amendment provides that the district magistrate has the authority to issue such adoption orders.

38. PMLA can't be applied if conspiracy charge not related to scheduled offence

News:

Prelims Takeaway
• Criminal conspiracy
• Section 120 IPC

- The Supreme Court has dismissed a petition seeking review of its verdict which held that a person cannot be booked under the Prevention of Money Laundering Act (PMLA) by invoking Section 120B of the IPC
- If the alleged criminal conspiracy was not related to a scheduled offence under PMLA.

Section 120A of the IPC

- **Criminal conspiracy is a crime in India** where two or more people plan to commit a crime together.
- Agreeing to do something illegal directly.
- Agreeing to do something legal, but through illegal means.
- For a criminal conspiracy to be proven, there are three key requirements:
- **Agreement:** There must be a meeting of minds between the conspirators, which can be implied from their actions even if not explicitly spoken or written.
- **Common Intention:** All conspirators must share the goal of committing a specific crime.
- **Overt Act:** At least one conspirator must take a concrete step towards carrying out the planned crime.
- The law treats co-conspirators like partners in crime.
- This means that if one member of the conspiracy commits the crime, all members can be held legally responsible, as per the doctrine of agency.
- The punishment for criminal conspiracy varies depending on the severity of the planned crime:
- **Serious Offenses:** If the conspiracy is to commit a major crime punishable by death, life imprisonment, or rigorous imprisonment for at least two years, the punishment for conspiracy is the same as the planned crime itself.
- **Lesser Offenses:** For all other conspiracies to commit illegal acts, the punishment is a maximum of six months imprisonment, a fine, or both.
- This highlights the importance of Section 120B of the IPC, which outlines the penalties for criminal conspiracy.

39. ECI's cVigil app

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

Prelims Takeaway
• cVigil
• Election commission

News:
- **The cVIGIL app of Election Commission** of India has become an effective tool in the hands of people to flag election code violations.
- Since the announcement of General Elections 2024, over 79,000 complaints have been received as of today.
- **Speed and transparency** are the cornerstones of cVIGIL app.

cVigil: Empowering Citizens for Fair Elections
- The Election Commission of India (ECI) has launched the cVigil app, putting the power to report electoral malpractices right in your pocket.
- This user-friendly app makes it easier than ever to report violations of the Model Code of Conduct (MCC) during elections.

Features for Vigilant Citizens:
- **Report on the Go:** Witness political misconduct? With cVigil, you can file a complaint within minutes, eliminating the need to visit the Returning Officer's office.
- **Real-Time Evidence Capture:** Capture photos, videos, or audio recordings directly through the app, providing valuable evidence of the violation.
- **Track Your Complaint:** Receive a unique ID for your complaint, allowing you to track its progress on your phone.
- **Time-Bound Action**: The app ensures a 100-minute response window, guaranteeing a swift response to your report.

- **Precise Location Tracking**: Geo-tagging automatically captures the location of the violation, aiding flying squads in immediate action.
- **Live Incident Focus:** cVigil allows reporting only for ongoing violations, ensuring the most up-to-date information reaches authorities.
- cVigil empowers citizens to become active participants in ensuring fair and ethical elections.

40. Unlawful Activities (Prevention) Act, 1967

News:

Prelims Takeaway
• UAPA
• Bail provision

- The Delhi Police filed its first chargesheet against news portal NewsClick in a case lodged under the Unlawful Activities (Prevention) Act, 1967, following allegations that they received funds through Chinese firms to spread pro-China propaganda.
- Under Section 43 D of the UAPA, the time to file a chargesheet in a case extends from 90 days to up to 180 days.
- In the case in hand, the court granted three extensions to the special cell of the Delhi Police to file the chargesheet.

Bail Related Provisions and Issues in UAPA

- The major problem with the UAPA lies in its Section 43(D)(5), which prevents the release of any accused person on bail
  - If, police have filed the chargesheet that there are reasonable grounds for believing that the accusation against such person is prima facie true.
- The effect of Section 43(D)(5) is that once the police elect to charge an individual under the UAPA, it becomes extremely difficult for bail to be granted.
- Bail is a safeguard and guarantee of the constitutional right to liberty.
- In the case of **Zahoor Ahmed Shah Watali**, the Supreme Court in 2019 confirmed that courts must accept the state's case without examining its merits.
- However, courts have since read this provision differently, emphasizing the right to a speedy trial and raising the bar for the state to book an individual under UAPA.

41. HC says Uttar Pradesh Madrasa Education Act 'unconstitutional'

News:

Prelims Takeaway
• Uttar Pradesh Madrasa Education Act, 2004

- Terming the **Uttar Pradesh Madrasa Education Act, 2004 "unconstitutional"**, the Allahabad High Court said the Act violates principles of secularism.

Key Highlights

- The court maintained that the **State has no power to create a board for religious education** or to establish a board for school education only for a particular religion and philosophy associated with it.
- it is the duty of the state to provide education which is secular in nature.
- It cannot discriminate and provide different types of education to children belonging to different religions.
- Any such action on the part of the state would be violative of secularism, which is part of the basic structure of the Constitution.
- Such an action on the part of the state is not only unconstitutional but also highly divisive of the society on religious lines," the court noted.

'No equivalence'

- "The Supreme Court has repeatedly emphasised on modern education with modern subjects
- the court directed the government to take steps forthwith for accommodating these students in regular schools
  - Recognised under the Primary Education Board and schools recognised under the High School and Intermediate Education Board of Uttar Pradesh.

42. Report turns spotlight on India's 'zero-food children'- The Hindu

News:

- A study published recently in the peer reviewed JAMA Network Open journal found the prevalence of **'zero-food children' in India at 19.3%, drawing attention to extreme food deprivation among children.**

Prelims Takeaway
• Malnutrition
• FAO

Key Highlights

- The study ranks **India as having the third highest percentage of zero-food children,** above only Guinea (21.8%) and Mali (20.5%).
- In terms of numbers, **India has the highest number of 'zero-food children' at more than six million.**
- "The states of Uttar Pradesh (28.4%), Bihar (14.2%), Maharashtra (7.1%), Rajasthan (6.5%), and Madhya Pradesh (6%) **account for nearly two-thirds of the total zero-food children in India,"** the report said.
- Breastfeeding cannot provide infants with the necessary nutrition after they are six months old.
- Introducing solid or semi-solid foods alongside breastfeeding plays a pivotal role in early childhood growth and development.
- According to the Food and Agricultural Organization (FAO), t**he share of other food contributing to calorific requirements should be about 50%** for children aged nine to 11 months (that is, 300 out of 700 Kcal/day)
  - while the share of breastmilk should be greater than other food for children aged six-eight months (that is, 400 out of 600 Kcal/day).
- "Women from underprivileged economic backgrounds work to sustain their families, resulting in their having insufficient time to complement breastfeeding for children above six months of age.
- With rapid industrialisation, **nuclear families have grown in both urban and rural areas, so there is no one to invest the time and energy** required to feed a child, apart from the mother
  - lack of awareness about nutritional needs of children, and social misconceptions, also contribute to the likely numbers.

43. France inscribes the right to abortion in its constitution

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

Prelims Takeaway
• India abortion law
• Right to abortion.

News:

- France inscribed the **guaranteed right to abortion in its constitution on March 8, a** powerful message of support for women's rights on International Women's Day.

Key Points

- In January 2024, France's Parliament had passed an **amendment to provide constitutional validity to the right to abortion.**
- **Abortion, although legal in France since 1975,** has now been a "guaranteed freedom" for women.
- Although rare, amending the **constitution is not without precedent in France.**
- The French constitution has been modified nearly 25 times since it was adopted in 1958.
- The last instance was in 2008 when **Parliament was awarded more powers and presidential tenure was limited to a maximum of two consecutive five-year** terms in office.
- **France is the only country** to currently have such a specification about abortion.

What About Other European Countries?

- **Abortion is currently accessible in more than 40 European nations**, but some countries are seeing increased efforts to limit access to the procedure.
- In September 2022, **Hungary's far-right government made it obligatory for women to listen to the pulse of the foetus,** sometimes called the "foetal heartbeat," before they can access a safe abortion.
- Poland, which has some of the most stringent abortion laws in Europe, allows termination only in the event of rape, incest or a threat to the mother's health or life.
- The U.K. permits abortion up to 24 weeks of pregnancy if it is approved by two doctors.

44. Law Commission recommends new law to protect trade secrets

News:

- The **22nd Law Commission recommended** that new legislation be introduced to **protect trade secrets with exceptions relating to whistleblower protection**, compulsory licensing, government use, and public interest.

Prelims Takeaway
• National Intellectual Property Rights Policy
• Law Commission

Key Highlights

- **Trade secrets are intellectual property** rights on confidential information that may be sold or licensed.
- They derive their value from being kept secret.
- However, unlike other forms of intellectual property, which are limited in duration, trade secrets can be protected indefinitely.
- Currently, **India lacks a specific law for the protection of trade secrets.**
- Instead, they are safeguarded under the general laws governing contracts, common law, criminal law, and principles of breach of confidence and equity.
- However, the **289th Law Commission Report,** published on 'Trade Secrets and Economic Espionage', states that:
  o the reference to the commission arose after deliberations in the government, where the need for legislation on the subject was felt.
- However, **the National Intellectual Property Rights Policy, 2016**, and the Parliamentary Standing Committee Report have brought back focus
  o on the need for introducing legislation to deal with trade secrets, the report informs.
- On the subject of economic espionage, the report states that "even trade secrets held by the Government of India have been consistently targeted by foreign governments in acts of active and passive economic espionage
  o and hence, there is a need for a single statute to address "all issues related to trade secret leakages and economic espionage".

GOVERNMENT SCHEMES

45. PRASHAD scheme

News:

- The Rs 40-crore **Hazratbal shrine development project**, which was inaugurated by Prime Minister is one of the 46 projects sanctioned under PRASHAD Scheme

Prelims Takeaway
• Mathura-Vrindavan as Mega Tourist Circuit
• PRASAD scheme

- The **Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD) scheme launched by the Ministry of Tourism** in 2014.

PRASHAD Scheme

- The PRASHAD scheme — **earlier called PRASAD since 'development of heritage sites'** was added to the name only in 2020
- It is aimed at the integrated development of popular religious, spiritual and heritage sites to provide essential infrastructure

- o such as parking, pathways, toilets, illumination, tourist information centres, among others, and promote them as popular tourist destinations.
- Under the scheme, **a large number of projects being undertaken are at Hindu pilgrimage sites**
  - o including at the Somnath temple (Gujarat), Srisailam temple (Andhra Pradesh), Kamakhya temple (Assam) and Kedarnath (Uttarakhand), among others.
- Development works have also been sanctioned at other religious and heritage sites, including at **Hazratbal shrine and Ajmer Sharif Dargah**
  - o development of pilgrimage facilitation at Four Patron Saints, Yuksom (Sikkim);
  - o development of Chamkaur Sahib (Punjab), development of Patna Sahib (Bihar);
  - o development of pilgrimage tourism infrastructure at Zunheboto (Nagaland);
  - o river cruise tourism at Varanasi, among others, according to ministry's reply to a question in the Lok Sabha last month.

46. PM-Surya Ghar Muft Bijli Yojana

News:
- Recently, the Union Cabinet approved the **PM-Surya Ghar Muft Bijli Yojana** with a budget of ₹75,021 crore.

PM-Surya Ghar Muft Bijli Yojana
- The free electricity scheme was earlier announced by the finance minister in the interim budget speech.
- **Objective:** To promote rooftop solar installations across India, promising 300 units of free electricity per month to one crore households.

Prelims Takeaway
• PM-Surya Ghar Muft Bijli Yojana
• One Sun One World One Grid (OSOWOG) Initiative
• Renewable Energy

Financial Support
- The government guarantees **no financial burden** on the beneficiaries
  - o by providing significant subsidies directly to their bank accounts
  - o by offering highly concessional bank loans.
- It will fund **60% of the installation cost for 2 kW systems** and **40% for systems from 2-3 kW capacity**.
- Systems beyond 3 kW won't be eligible for central subsidies.
- The remaining installation costs will be covered by households through **collateral-free, low-interest loans,** currently available at around 7%.

Additional Components
- Provisions for developing a **"Model Solar Village"** in each district to showcase rooftop solar adoption in rural areas.
- The Urban Local Bodies and Panchayats will be **incentivised** to promote rooftop solar systems in their jurisdictions.
- **Payment security** for renewable energy service companies (**RESCOs**)
- **Dedicated funds for innovative projects** in rooftop solar technology.

The Implementation
- The scheme emphasizes the use of **Indian-made solar panels and systems** to boost local manufacturing.
- Each public sector unit will engage with specific states to execute the programme, forming **special purpose vehicles (SPVs)** with private companies.

Expected Benefits
- **Savings** up to fifteen to eighteen thousand rupees annually for households
  - o from free solar electricity and selling the surplus to the distribution companies
- Charging of electric vehicles
- **Entrepreneurship opportunities** for a large number of vendors for supply and installation
- **Employment opportunities** for the youth with technical skills in manufacturing, installation and maintenance.

47. SWAYAM Plus platform

News:
- Recently, the Union Minister of Education and Skill Development and Entrepreneurship launched the **'SWAYAM Plus' platform.**

SWAYAM Plus Platform
- This platform **offers courses** developed collaboratively with industry leaders focusing on **employability** and **professional development.**
- It will offer programmes in several sectors like manufacturing, energy, computer science, engineering, management studies, healthcare, hospitality, tourism, and Indian knowledge systems.
- It features innovative elements such as **multilingual content** (available in 12 major Indian languages of the country), **AI-enabled chatbot** and **credit recognition.**
- The Indian Institute of Technology, Madras **(IIT Madras) will operate** the 'SWAYAM Plus' Platform.
  - IIT Madras is a founder institution of Swayam-NPTEL and the MOOC platform.

Objectives
- To **build an ecosystem** for all stakeholders in professional and career development
  - including learners, course providers, industry, academia, and strategic partners.
- To enable a mechanism for **recognizing high-quality certifications and courses** offered by the best industry and academia partners.
- To **reach a large learner base** across the country, with a particular emphasis on tiers 2 and 3 towns and rural areas.
- To bring in features such as mentorship, scholarships, and job placements to the platform, creating a **comprehensive digital ecosystem** for upskilling and re-skilling at all levels viz. certificate, diploma, or degree.

Significance
- The exposure through these courses would equip students with **theoretical knowledge, practical skills,** and **awareness of latest job market trends.**
- The courses would **bridge the gap between academia and industry,** making college graduates more job-ready and competitive.

48. Sashakt Nari - Viksit Bharat programme

News:
- The Prime Minister, participated in **Sashakt Nari - Viksit Bharat programme and witnessed agricultural drone demonstrations** conducted by Namo Drone Didis at Indian Agricultural Research Institute

Viksit Bharat Sankalp Yatra
- It is a nationwide campaign to raise awareness through outreach activities to achieve saturation of schemes of Govt. of India across the country covering all Gram Panchayats, Nagar Panchayats and Urban Local Bodies.
- The campaign is being taken up by adopting a whole of government approach with active involvement of various Ministries/Departments of Government of India, State Governments, Central Govt. Organizations and Institutions.

Namo Drone Didi scheme
- In a significant move aimed at empowering women in rural areas and making them financially independent
- the central government took an initiative in which 15,000 women-led **Self-Help Groups (SHGs) will receive agricultural drones**
  - To assist in crucial tasks such as crop monitoring, fertiliser spraying, and seed sowing.
- This initiative not only provides women with **employment opportunities but also enhances agricultural productivity** through the integration of modern technology.
- drone gadgets will be **used to deliver items such as milk, groceries, medicines, and medical samples.**
- It aimed to reach out to the vulnerable who are eligible under various schemes but have not availed benefit so far.

49. Rozgar Adharit Jankalyan (PM-SURAJ) portal

News:
- the Pradhan Mantri Samajik Utthan evam **Rozgar Adharit Jankalyan (PM-SURAJ) portal was launched by P.M.**

Key Highlights
- The Aim is to provide **credit support to entrepreneurs from disadvantaged sections of society**
- The **Ministry of Social Justice and Empowerment l**aunched a nationwide initiative
- It disbursed around ₹720 crore worth of credit to one lakh beneficiaries from the Scheduled Castes, Denotified, Nomadic and Semi-Nomadic Tribes, Other Backward Classes and Safai Karamcharis.
- The portal will be a **one-stop point where people from disadvantaged sections of society can apply** for and monitor the progress of all loan and credit schemes already available to them.

Welfare scheme for vulnerable section
- Protection of Civil Rights Act, 1955 (PCR) and the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 (PoA)
- Stand-Up India Scheme.
- Pradhan Mantri Adarsh Gram Yojana.
- Pradhan Mantri Van Dhan Yojana.
- Van Bandhu Kalyan Yojana.
- Vocational Training Centres in Tribal Areas.
- Hamari dharohar
- Pradhan Mantri Jan Vikas Karyakaram
- Pradhan Mantri Matru Vandana Yojana

Prelims Takeaway
• Pradhan Mantri Jan Vikas Karyakaram
• Pradhan Mantri Matru Vandana Yojana

50. 'DIP' & 'Chakshu' portals

News:
- Recently, the Minister of Communications, Railway, and Electronics & Information Technology launched the **Department of Telecommunications (DoT)'s 'Digital Intelligence Platform (DIP)' and 'Chakshu'** facility on Sanchar Saathi portal

Prelims Takeaway
• Chakshu
• Saathi portal

Digital Intelligence Platform:
- It is **developed by the Department of Telecommunications.**
- It is a secure and integrated platform for real time intelligence sharing, information exchange and coordination among the stakeholders, Telecom Service Providers (TSPs), law enforcement agencies (LEAs), banks and financial institutions (FIs), social media platforms, identity document issuing authorities etc.
- The portal also contains information regarding the cases detected as misuse of telecom resources.
- The shared information could be useful to the stakeholders in their respective domains.
- It also works as a backend repository **for the citizen-initiated requests on the Sanchar Saathi portal for action by the stakeholders.**
- The DIP is accessible to the stakeholders over secure connectivity and the relevant information is shared based on their respective roles. The said platform is not accessible to citizens.

What is Chakshu?
- It is the latest addition to the citizen centric facilities already **available on the Sanchar Saathi portal of DoT.**

- It facilitates citizens to report suspected fraud communication received over call, SMS or WhatsApp with the intention of defrauding:
  - Like KYC expiry or update of bank account/payment wallet/SIM/gas connection/electricity connection
  - Sextortion, impersonation as government official/relative for sending money, disconnection of all mobile numbers by Department of Telecommunications etc.
- In case, a citizen is already a victim of cyber-crime or financial fraud
- It is advised to report at cyber-crime helpline number 1930 or website https://www.cybercrime.gov.in of Government of India.

51. Project ANAGRANINF

News:

Prelims Takeaway
• Gram-negative bacteria
• Drug-Resistant Bacteria

- In an innovative initiative aimed at propelling healthcare innovation forward, the **Technology Development Board has sanctioned a grant of ₹75 Lakhs towards the project "ANAGRANINF**
- It is Development of a Novel Class of Antibiotics Against Gram-Negative Bacterial-Infections,

New Antibiotic to Fight Drug-Resistant Bacteria
- This project aims to develop a new type of antibiotic to combat serious infections caused by gram-negative bacteria.
- These bacteria are especially difficult to treat because they have multiple ways to resist drugs.

What are gram-negative bacteria?
- They have a different cell wall structure than other bacteria, making them harder to kill with antibiotics.
- They can quickly develop resistance to new drugs and share this resistance with other bacteria.
- These bacteria can cause serious infections like pneumonia, bloodstream infections, and surgical site infections.

The Project's Goal
- Develop a new drug (antibiotic) that can target a specific enzyme (FabI) in gram-negative bacteria.
- This new drug would be effective against these hard-to-treat infections.

Who is Funding This Project?
- The Technology Development Board (TDB) is a government agency that supports the development of new technologies in India.
- The TDB funds research projects and helps companies bring new technologies to market.

52. National Cooperative Database (NCD)

News:

Prelims Takeaway
• Minister of Cooperation
• 'National Cooperative Database 2023

- Union Home Minister and Minister of Cooperation, **will launch the National Cooperative Database at New Delhi.**
- The Minister of Cooperation will also release the '**National Cooperative Database 2023: A Report'.**

The National Cooperative Database (NCD)
- It is a central hub for information on India's cooperative societies, **created by the Ministry of Cooperation.**
- This online platform **aims to strengthen the cooperative sector by providing a comprehensive and up-to-date resource.**
- Developed with input from state governments, federations, and other stakeholders, the NCD acts as a bridge between the central government, states, and individual cooperatives.

- Information on each society, including registration details, location, membership numbers, and financial data, is collected and validated.
- This allows for better communication and collaboration across the cooperative network.

The NCD offers several advantages:

- **Easy access:** All data is available in one place, simplifying information retrieval.
- **Reliable information:** Data is comprehensive, current, and accurate.
- **User-friendly interface**: The system is easy to navigate and use.
- **Network connections**: The database helps identify linkages between cooperatives.
- **Customizable reports**: Users can generate reports and graphs based on specific criteria.
- **Data-driven insights**: The NCD allows for data analysis to inform decision-making.
- **Visual representation**: Geographical mapping provides a clear picture of cooperative distribution.

53. NITI Aayog Launches 'Vocal for Local' Initiative

News:

Prelims Takeaway
- NITI AAYOG
- VOCAL FOR LOCAL

- **NITI Aayog launched the 'Vocal for Local' initiative** under its Aspirational Blocks Programme

Vocal for Local' Initiative:

- It is an initiative of NITI Aayog **under its Aspirational Blocks Programme t**o encourage a spirit of self-reliance among the people and propel them towards sustainable growth and prosperity.
- As a part of this initiative, **local products from 500 aspirational blocks ha**ve been mapped and consolidated under the Aakanksha brand.
- Aakanksha is an umbrella brand, which could be supplemented into multiple sub-brands that have the potential to create an international market.
- In order to encourage these products, a dedicated window for the Aspirational Blocks Programme under the brand name Aakanksha
  - o has been established on the Government e-Marketplace (GeM) portal.
- The partners will also provide technical and operational support for the facilitation of
  - o e-commerce onboarding, establishing linkages, financial/digital literacy, documentation/ certification, and skill enhancement, among others.

54. Project for cashless treatment of road crash victims -The Hindu

News:

Prelims Takeaway
- The National Health Authority
- Motor Vehicle Accident Fund

- The Road Transport and Highways Ministry announced a **pilot project to provide cashless treatment of up to ₹1.5 lakh to all victims of road accidents**.

Key Highlights

- The pilot project will be undertaken in Chandigarh to establish an "ecosystem for providing timely medical care to the victims of road accidents including during the golden hour
- Victims will be entitled to cashless treatment of up to ₹1.5 lakh per person for a maximum period of seven days from the date of the accident.
- The scheme will be applicable to all victims of road accidents involving a motor vehicle which occurred on any category of road.
- The packages for trauma and polytrauma **offered under the Pradhan Mantri Jan Arogya Yojana** will also be co-opted under the scheme.
- Claims raised by hospitals for providing treatment will be r**eimbursed from the Motor Vehicle Accident Fund.**
- **The golden hour** is the period following an injury during which there is the highest likelihood of preventing death by providing prompt medical care, according to **the Motor Vehicles Amendment Act, 2019.**
- The amendment also provided for "a scheme for **cashless treatment of road accident victims"** as well as a Motor Vehicle Accident Fund.

- **The National Health Authority will be the implementing agency** for the programme, and will coordinate with the police, hospitals and the State Health Agency.

the Motor Vehicles Amendment Act, 2019

- The Act provides **for grant of licenses and permits related to motor vehicles, standards for motor vehicles,** and penalties for violation of these provisions.
- The central government will develop a **scheme for cashless treatment of road accident victims during golden hour.**
- It requires the **central government to constitute a Motor Vehicle Accident Fund**, to provide compulsory insurance cover to all road users in India.
- the act **defines a good samaritan as a person who renders emergency medical** or non-medical **assistance to a victim** at the scene of an accident.
- It allows the central government to order for recall of motor vehicles if a defect in the vehicle may cause damage to the environment, or the driver, or other road users

INTERNATIONAL RELATION

55. India-EFTA TEPA

News:

- India and the four-nation European Free Trade Association (EFTA) grouping — comprising **Iceland, Liechtenstein, Norway and Switzerland.**
- They are likely to **sign a long-negotiated bilateral free trade agreement** on March 10
- It aimed at increasing **trade** and **investment** flows, **job creation** and **economic growth**, according to multiple sources.

Prelims Takeaway
• EFTA
• EU

European Free Trade Association (EFTA)

- The EFTA is the intergovernmental organization of **Iceland, Liechtenstein, Norway and Switzerland.**
- It was set up in 1960 (by the Stockholm Convention in 1960)by its then **seven Member States for the promotion of free trade and economic integration between its members**.
- The organisation operates in parallel with the European Union (EU), and all four member states participate in the European Single Market and are part of the Schengen Area.
- However, they are not a party to the European Union Customs Union.
- The main tasks of the Association are threefold -
  - Maintaining and developing the EFTA Convention, which regulates economic relations between the four EFTA States;
  - Managing the Agreement on the European Economic Area (EEA Agreement), which brings together the EU and 3 of the EFTA States - Iceland, Liechtenstein and Norway - in a single (internal) market.
  - Developing EFTA's worldwide network of free trade agreements.

56. FATF and Misuse of Virtual Assets

Relevance: Important International institutions, agencies and fora - their structure, mandate.
News:

- The Financial Action Task Force (FATF), has found that many countries are yet to fully implement its requirements aimed at preventing misuse of virtual assets and virtual asset service providers (VASPs).

Prelims Takeaway
• FATF
• Virtual assets

- It is the global money laundering and terrorist financing watchdog,

FATF

- The FATF is an international organization that fights financial crime.
- It creates rules (standards) and encourages countries to follow them to stop money laundering and terrorist financing.

- FATF was started in 1989 to tackle money laundering, and later in 2001, **its focus expanded to include terrorism financing.**
- It's headquartered in Paris and has 39 members, including major economies like the US, India, and China. India joined in 2010.
- FATF uses two lists to identify countries with weaknesses in fighting financial crime:
- **Blacklist**: Countries that actively support money laundering or terrorism funding are blacklisted.
- This can lead to them being cut off from financial aid from organizations like the World Bank and facing economic sanctions.
- Currently, **North Korea, Iran, and Myanmar are blacklisted**.
- **Grey List:** Countries at risk of money laundering or terrorism financing are put on the grey list.
- This serves as a warning to improve their controls or risk being blacklisted.
- Being on either list can make it harder for a country to do business internationally.

57. Several OPEC+ nations extend oil cuts to boost prices

News:

Prelims Takeaway
• OPEC
• Crude oil

- Moscow, Riyadh and several other **OPEC+ members announced extensions to oil production cuts first announced in 2023** as part of an agreement among oil producers to boost prices following economic uncertainty.

OPEC+:
- It is a **group of oil-exporting countries** which meets regularly to decide how much crude oil to sell on the world market.
- These nations came to an accord towards the end of 2016 **"to institutionalize a framework for cooperation between OPEC and non-OPEC** producing countries on a regular and sustainable basis."
- These nations **aim to work together on adjusting crude oil production to bring stability to the oil market.**
- OPEC+ controls about 40% of global oil supplies and more than 80% of proven oil reserves.
- At the core of this group are the members of OPEC (the Organization of the Oil Exporting Countries), which are mainly Middle Eastern and African countries.
- **Members**: It comprises OPEC countries plus Azerbaijan, Bahrain, Brunei, Kazakhstan, Russia, Mexico, Malaysia, South Sudan, Sudan, and Oman

58. EFTA pact with committed investments and jobs

News:

- The proposed free trade agreement between India and the European Free Trade Association (**EFTA) countries, may be formalized soon as the pact "is ready" and goes through legal scrutiny.**

Prelims Takeaway
• EFTA
• Trade and Investment Agreement

Key Highlight
- The agreement commitment of $100-billion investments from the four-country bloc into India over the next 15 years generating an estimated one million jobs,
- This is the first FTA for India where it has been able to get a commitment on investment and employment from the partner nations.
- The EFTA countries are looking at investing in joint ventures in areas such as pharmaceuticals
  - Especially medical devices, certain chemicals, food processing and engineering products,"

Free trade pact
- EFTA countries, which include Switzerland, Finland, Norway and Leichtenstein, re-started talks for a free trade pact with India, **called Trade and Investment Agreement, in October 2016.**

- The chapters contained in the proposed pact include trade in goods, rules of origin, trade in services, investment promotion and cooperation, trade and sustainable development, and customs and trade facilitation.
- The JV areas the countries have short-listed mainly include areas where there is no competition from India.
- EFTA has agreed to the condition of investments being made in India because they are getting market access.

Exports to EFTA
- India's exports to the EFTA bloc in 2023 were at $1.87 billion, with items such as chemicals, pharmaceuticals, apparel and pearls, precious and semi-precious stones, dominating the export basket.
- On the other hand, it imported $20.45 billion goods from the EFTA countries in 2023 with inflows of pearls, precious or semi-precious stones, precious metals, and coins valued at $16.7 billion.

59. India-U.S. tri-service exercise Tiger Triumph

News:

- **Tiger Triumph, the tri-service Humanitarian Assistance and Disaster Relief** (HADR) exercise between **India and the U.S.** commenced on the Eastern seaboard

Prelims Takeaway
• HADR

Key Highlights
- The exercise is aimed at developing interoperability for conducting HADR operations and refining Standard Operating Procedures (SOPs)
  - to enable rapid and smooth coordination between forces of both countries
  - The harbour phase is scheduled for March 18 to 25. Personnel from both navies would participate in training visits, subject matter expert exchanges, sports events and social interactions,
- On completion of the Harbour Phase, the ships would sail for the sea phase and undertake maritime, amphibious and HADR operations in accordance with injected situations, it added.

HADR
- india has emerged first responder in Humanitarian Assistance and Disaster Relief (HADR) at global level,
- The objective of the workshop on Humanitarian Assistance and Disaster Relief (HADR) is to exchange information
  - share the best practices on risk reduction and resilience, integration of Armed Forces in a regional response and disaster infrastructure and for promoting global collaboration among SCO members.
- The main goals of SCO are strengthening mutual trust and neighborliness among the member states
  - promoting the effective cooperation in politics, trade, economy, technology and culture as well as in education, energy, transport, tourism, environmental protection and other areas.
- Making joint efforts to maintain and ensure peace, security and stability in the region and moving towards the establishment of a democratic, fair and rational new international political and economic order.

60. India-Middle East-Europe Economic Corridor (IMEC)

News:

- Leading railway PSU, RITES Ltd. has emerged as a key contender among other Indian railway companies eyeing development along the strategic **India-Middle East-Europe Economic Corridor (IMEC)**

Prelims Takeaway
• India-Middle East-Europe Economic Corridor
• Map based question

Key Highlights
- RITES and AD Ports are now analysing the feasibility of development along missing links across the existing rail corridor

o   That passes through the UAE, Saudi Arabia, Jordan, and Israel,
- assessments are being done on the kind of capacity augmentation required, kind of designs and costs involved.
- Even though it is a desert area, the terrain is not that challenging that it can't be done,"
- Similarly, a proposed rail route from Jebel Ali (UAE) to Haifa spans 2,565 km with missing link of 745 km
- Another route from Abu Dhabi to Haifa spans 2,449 km with 629 km of missing link, while the proposed route from Dammam port to Haifa is 2,149 km with 289 km of missing link.
- Lastly, Ras Al-Khair port to Haifa spans 1,809 km with 269 km of missing link.

India-Middle East-Europe Economic Corridor (IMEC) Project
- The proposed IMEC will consist of Railroad, Ship-to-Rail networks and Road transport routes extending across two corridors, that is,
  o   The East Corridor – connecting India to the Arabian Gulf,
  o   The Northern Corridor – connecting the Gulf to Europe.
- The IMEC corridor will also include an electricity cable, a hydrogen pipeline and a high-speed data cable.
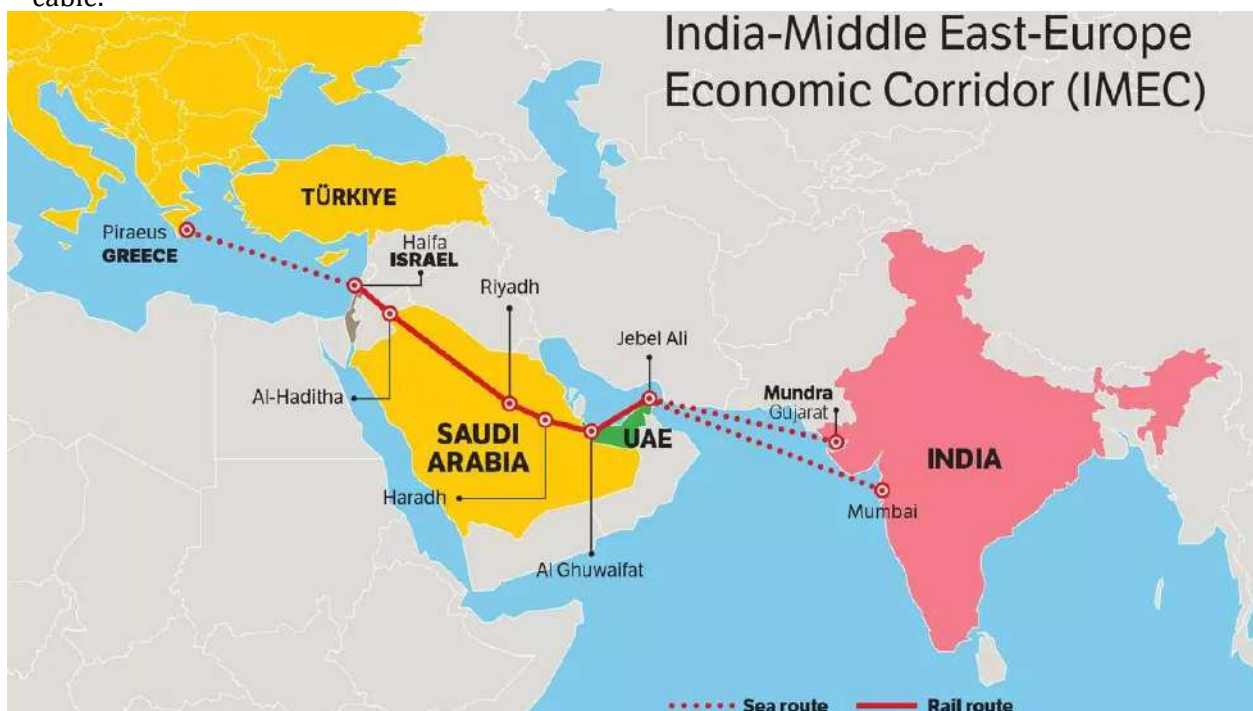
61.   India to join U.S.-led carbon market project

News:
- India has decided to join at least one of the four cooperative work programmes unveiled recently, under the '**clean energy pillar' of the U.S.-led Indo Pacific Economic Framework (IPEF)**
- It is one of facilitating and promoting carbon-market activities.

Prelims Takeaway
- Indo Pacific Economic Framework (IPEF)\
- Map based questions

Key Highlights
- New Delhi is also considering two of the other co-operative work-programme initiatives, one on clean electricity
  o   the other on the use of sustainable aviation fuel but will take a call on whether to join or not after thorough analysis.
- **India will join the cooperative working group** on carbon markets t**hrough the Ministry of Power and the Bureau of Energy Efficiency** will be the nodal body

- The IPEF, an initiative led by the U.S. was unveiled in May 2022, bringing together 14 regional partners
  o Australia, Brunei, Fiji, India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, the U.S. and Vietnam.
- It is a US-led initiative that aims to strengthen economic partnership among participating countries
  o to enhance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness in the Indo-Pacific region.

Four pillars
- Seen by many analysts as an attempt by the U.S. to counter China's growing influence in the region
- the IPEF aims at having a common set of rules and standards around four pillars viz.
  o connectivity and digital trade
  o resilient supply chains
  o clean energy
  o corruption-free fair trade.

62. Pakistan-IMF on releasing last tranche of $3 billion bailout

News:

Prelims Takeaway
• IMF
• Bailout

- The International Monetary Fund (**IMF**) said it has reached a staff-level agreement with the new government in **cash-strapped Pakistan on the final review of a $3 billion bailout**
- It will pave the way for the release of the last $1.1 billion tranche from the global lender.

IMF Bailouts
- **Bailout**: Bailout is a general term for extending financial support to a company/country facing a potential bankruptcy threat.
- It can take the form of loans, cash, bonds, or stock purchases.
- A bailout may (not) require reimbursement but is often accompanied by greater oversight and regulations.
- Countries seek help from the IMF usually when their economies face a major macroeconomic risk, mostly currency crisis .
- Countries seek such assistance from the IMF to meet their external debt and other obligations
  o To purchase essential imports, and to prop up the exchange value of their currencies.

The IMF
- It is an international organization that **promotes global economic growth and financial stability, encourages international trade, and reduces poverty.**
- It was set up in 1945 out of **the Bretton Woods conference.**
- Originally, the primary goal of the IMF was to bring about international economic coordination to prevent competing currency devaluation by countries trying to promote their own exports.
- Eventually, it evolved to be a lender of last resort to governments of countries that had to deal with severe currency crises.
- India has sought financial assistance from the IMF seven times **but never since 1993**

63. Fourth edition of Shanghai Cooperation Organisation Startup Forum

News:
- The fourth edition of the Shanghai Cooperation Organisation (SCO) Startup Forum was organized here in New Delhi.

Prelims Takeaway
• SCO

- The initiative focused on broadening startup interactions among the SCO Member States, fostering an environment conducive to innovation, promoting job creation, and inspiring young talent to develop innovative solutions.

SCO Startup Forum: Building a Bridge for Innovation in Eurasia
- The Shanghai Cooperation Organisation Startup Forum (SCO Startup Forum) is a platform designed to connect and empower startups across all SCO member states.

- It fosters collaboration and knowledge sharing between entrepreneurs, corporations, investors, and governments.

Key Goals:
- **Boost Innovation and Collaboration:** The forum aims to create a space where startups can learn from each other's best practices and work together to develop groundbreaking ideas.
- **Bridge the Gap:** By bringing corporations and investors together with startups, the forum provides much-needed support and market access for young companies.
- **Scaling Up:** The forum looks to identify and promote social innovation solutions, while also offering mentorship and programs to help startups reach international markets.
- **Cross-Border Collaboration**: The forum encourages collaboration between incubators and accelerators across SCO member states, facilitating knowledge exchange and market expansion for startups.

India Taking the Lead:
- India is taking a proactive role in fostering this SCO startup ecosystem.
- They will be hosting the upcoming SCO Startup Forum 5.0 in January 2025, along with a meeting of the Special Working Group on Startups and Innovation (SWG) in November 2024.
- This leadership role builds on the success of previous forums, which have seen the launch of the SCO Startup Hub (a central point of contact) and the first-ever physical forum in 2023.
- The SCO Startup Forum is a promising initiative that aims to create a thriving and interconnected network of innovation across Eurasia.

64. India to double assistance to Bhutan

News:
- **India has decided to double Bhutan's assistance over the next five years**, from ₹5,000 crore in 2019-2024 to ₹10,000 crore for the period till 2029, Prime Minister said in Thimphu

Key Highlights
- The Indian Prime minister was awarded Bhutan's highest honour, the 'Order of the Druk Gyalpo', which was announced in 2021
  - to acknowledge India's role in ensuring "Bhutan's success in managing the COVID-19 pandemic".
- After meeting Bhutan's Prime Minister, India and Bhutan inked seven agreements on energy, food safety, sports, and research, as well as a space collaboration roadmap.
- Both will soon see our initiatives for a new airport for better connectivity, rail links between Kokrajhar-Gelephu and Banarhat-Samtse
- waterways navigation on the Brahmaputra.
- To strengthen trade infrastructure, we will build integrated check posts,"

India Bhutan bilateral relation
- **Bhutan King recalled Operation All Clear** which was a military operation conducted by the Royal Bhutan Army in 2003 **against Assam separatist insurgent groups in the southern regions of Bhutan.**
- India and Bhutan have agreed to discuss new routes of regional connectivity, which includes the development of a cross-border rail link between Gelephu in Bhutan and Kokrajhar in Assam, spanning 58 km.
- Additionally, there is a **plan to explore a second rail link of approximately 18 km between Samtse in Bhutan and Banarhat** in the tea gardens area of West Bengal.
- Progress on the construction of the 1020 MW **Punatsangchhu-II hydropower project was noted with satisfaction**, with its early commissioning expected in 2024.

Prelims Takeaway
- Gelephu Mindfulness City
- Punatsangchhu-II hydropower project

65. UN Security Council demands immediate ceasefire in Gaza

News:
- The **United Nations Security Council demanded an immediate ceasefire between Israel and Palestinian militants Hamas** and the

Prelims Takeaway
- UNSC
- UN

immediate and unconditional release of all hostages after the United States abstained from the vote.

Key Highlights

- The remaining 14 council members voted for the resolution, which was proposed by the 10 elected members of the body.
- Washington had been averse to the word ceasefire earlier in the nearly six-month-old war in the Gaza Strip and had used its veto power to shield U.S. ally Israel as it retaliated against Hamas
- The Security Council resolution also "emphasizes the urgent need to expand the flow of humanitarian assistance to and reinforce the protection of civilians in the entire Gaza Strip
  o   and reiterates its demand for the lifting of all barriers to the provision of humanitarian assistance at scale."
- Russia and China have also vetoed two U.S. drafted resolutions on the conflict – in October and on Friday.

UNSC:

- The Security Council was **established by the UN Charter in 1945**.
- It is one of the six principal organs of the United Nations.
- The other 5 organs of the United Nations are—**the General Assembly (UNGA), the Trusteeship Council, the Economic and Social Council, the International Court of Justice, and the Secretariat.**
- Its primary responsibility is to work to maintain international peace and security.
- The council is headquartered at NewYork.
- The council has 15 members: **the five permanent members and ten non-permanent members elected for two-year terms.**
- The five permanent members are the **United States, the Russian Federation, France, China and the United Kingdom.**
- India, for the eighth time, has entered the UNSC as a non-permanent member last year (2021) and will stay on the council for two years i.e 2021-22.

66. Resume India-Pakistan trade

News:

- **Pakistan stopped trade after the constitutional changes in Jammu and Kashmir** in 2019.
- Like other aspects of the India-Pak relationship, trade too has been impacted by Islamabad's hard line on Kashmir and its support for terrorism.
- The dire state of the Pakistani economy, however, has raised hopes for a change in Pakistan's approach.

Prelims Takeaway
• Most Favored Nation status
• Map based questions

Pakistan limited trade with India despite benefits:

- Although granted favorable trading terms since 1996, Pakistan restricted most Indian imports.
- India still enjoyed a trade advantage, with cotton and chemicals being key Pakistani imports.

Trade halt and reasons:

- Pakistan stopped official trade with India in 2019 after India revoked special status for Kashmir.
- This followed India raising tariffs on Pakistani goods and withdrawing its Most Favored Nation status.

Why might Pakistan resume trade?

- A new Pakistani government and economic woes create pressure for a policy change.
- Importing from further distances strains Pakistan's finances.
- Direct trade with India would be more efficient.
- Pakistan's relations with other neighbors are currently tense.

Challenges to restarting trade:

- Political figures in Pakistan may oppose trade normalization.
- Pakistan's military traditionally disfavors improved relations.
- Pakistan wants Kashmir's status reversed, which India won't do.
- India demands Pakistan address terrorism concerns before trade resumes.

Current situation:
- India holds a stronger position and won't make concessions.
- Pakistan needs to decide if economic benefits outweigh political difficulties.

67. China to develop Sri Lanka's deep-sea port and airport

News:
- Sri Lanka's Prime Minister said that **China has pledged to develop the island nation's strategic deep sea port** and the capital's airport after talks with his counterpart in Beijing.

Key Highlights
- Sri Lanka said China — the island's biggest bilateral creditor — would "assist" Sri Lanka's restructuring of external debt, a key condition to maintaining a $2.9 billion IMF bailout.
- Beijing's position on debt restructuring has not been made public
  - but Sri Lankan officials have said China was reluctant to take a haircut on its loans but could extend the tenure and adjust interest rates.
- Sri Lanka in 2022 ran out of foreign exchange to finance essential imports and declared a sovereign default on its $46 billion foreign debt.
- Beijing had offered "assistance to develop" Colombo International Airport and Hambantota port,

Japanese project halted
- A Japanese-funded expansion of Colombo airport had been on hold since Sri Lanka's sovereign debt default.

India's concern
- The southern sea port of Hambantota was handed to a Chinese state-owned company in 2017 on a 99-year lease for $1.12 billion.
- India and the U.S. are both concerned that a Chinese foothold at Hambantota, on the island's southern coast, could boost its naval advantage in the Indian Ocean.

68. India signs free trade pact with 4 European nations

News:
- India signed a free trade agreement (FTA) with four European countries — **Iceland, Liechtenstein, Norway, and Switzerland**
- a goal of reaching $100 billion in investments in India and one million jobs within 15 years.

Key Highlights
- The Trade and Economic Partnership Agreement (TEPA) marks the second such full-fledged FTA signed after India's agreement with the United Arab Emirates
  - will see considerable tariff reductions, increase market access, and simplify customs procedures.
- The European Free Trade Association (EFTA) countries, which are **separate from the European Union, said that, for the first time**
- The FTA also included a chapter on **commitments to human rights and sustainable development.**
- According to the TEPA's Chapter 7 that deals with "Investment Promotion andCooperation
  - the two sides had shared "objectives" to increase foreign direct investment from EFTA states into India by $50 billion within 10 years and another $50 billion in the next five years.
- It would also **"aim to facilitate the generation of 1 million jobs within 15 years in India** resulting from those investments.
- It's about creating the right environment, speaking to our companies and then tracing and tracking development
- If the goals are not achieved within 15 years, with a three-year grace period and another two years in negotiations
  - India will be entitled to withdrawing some of its trade concessions "temporarily", the agreement says.

69. India launches database to record crimes against UN peacekeepers

News:

- India has launched a new database designed to record crimes against UN peacekeepers and monitor progress in holding perpetrators accountable

The UN peacekeeping

- It marks its 75th anniversary this year and a yearlong campaign has been organized for the same.
- UN Peacekeeping has been one of the most important tools for mitigating conflict and promoting peace and security around the globe.
- The Department of Peace Operations of the UN plays the function of peacekeeping as an "instrument developed by the organization as a way to help countries torn by conflict to create the conditions for lasting peace".
- Although the United Nations acknowledges that all actions are "mutually reinforcing" and that overlap between them is common in practice, it is separated from peacebuilding, peacemaking, and peace enforcement.
- The theme of the 75th anniversary "Peace begins with me" recognizes the service and sacrifice of peacekeepers, past and present.
- It also pays tribute to the resilience of the communities that we serve, who continue to strive for peace

GS III

ECONOMY

70. World Happiness Report 2024

News:

- **Finland for the seventh time straight became the world's happiest country,** according to the annual UN World Happiness Report

Key highlights

- The World Happiness Report is a yearly ranking of how happy people are in different countries.
- The World Happiness Report is a partnership of Gallup, the Oxford Wellbeing Research Centre, the UN Sustainable Development Solutions Network, and the WHR's Editorial Board
- It's based on surveys asking people how happy they feel, along with considering things like money, health, and social connections.
- This year, Finland came in first place for the seventh year in a row, followed by other Nordic countries like Denmark and Iceland.
- Worldwide, women were less happy than men in every region, with the gender gap widening as they aged, said the report.
- The bottom of the list has Afghanistan, and for the first time in a long time, the US and Germany aren't even in the top 20 happiest places.

interesting facts about India.

- They rank 126th again this year, and older people, especially married educated men, tend to be happier than younger people or women.
- The biggest things affecting happiness in India are where you live, if you feel discriminated against, and your health.

71. India's first underwater Metro line in Kolkata

News:

- Prime Minister inaugurated Kolkata Metro's Esplanade-Howrah Maidan section

- it passes below the mighty Hooghly river through the country's first underwater transportation tunnel.

Key Highlights

- He also took a ride on a Metro train from Esplanade to Howrah Maidan and interacted with school students during the journey passing through the tunnel, which is a testament to the country's engineering capabilities.

History of Kolkata Metro: India's First Rapid Transit System

- The Kolkata Metro is a rapid transit system serving the city of Kolkata and the wider Kolkata Metropolitan Region in West Bengal, India.
- It is the first operational rapid transit system in India, **opening in 1984, and the second busiest and fourth-longest metro network i**n India as of January 2023.
- It has four operational lines, with a total length of 59.38 km and 48 stations, and three other lines are in various phases of construction.
- The system has a **mix of underground, at-grade and elevated stations** using both broad-gauge and standard-gauge tracks.
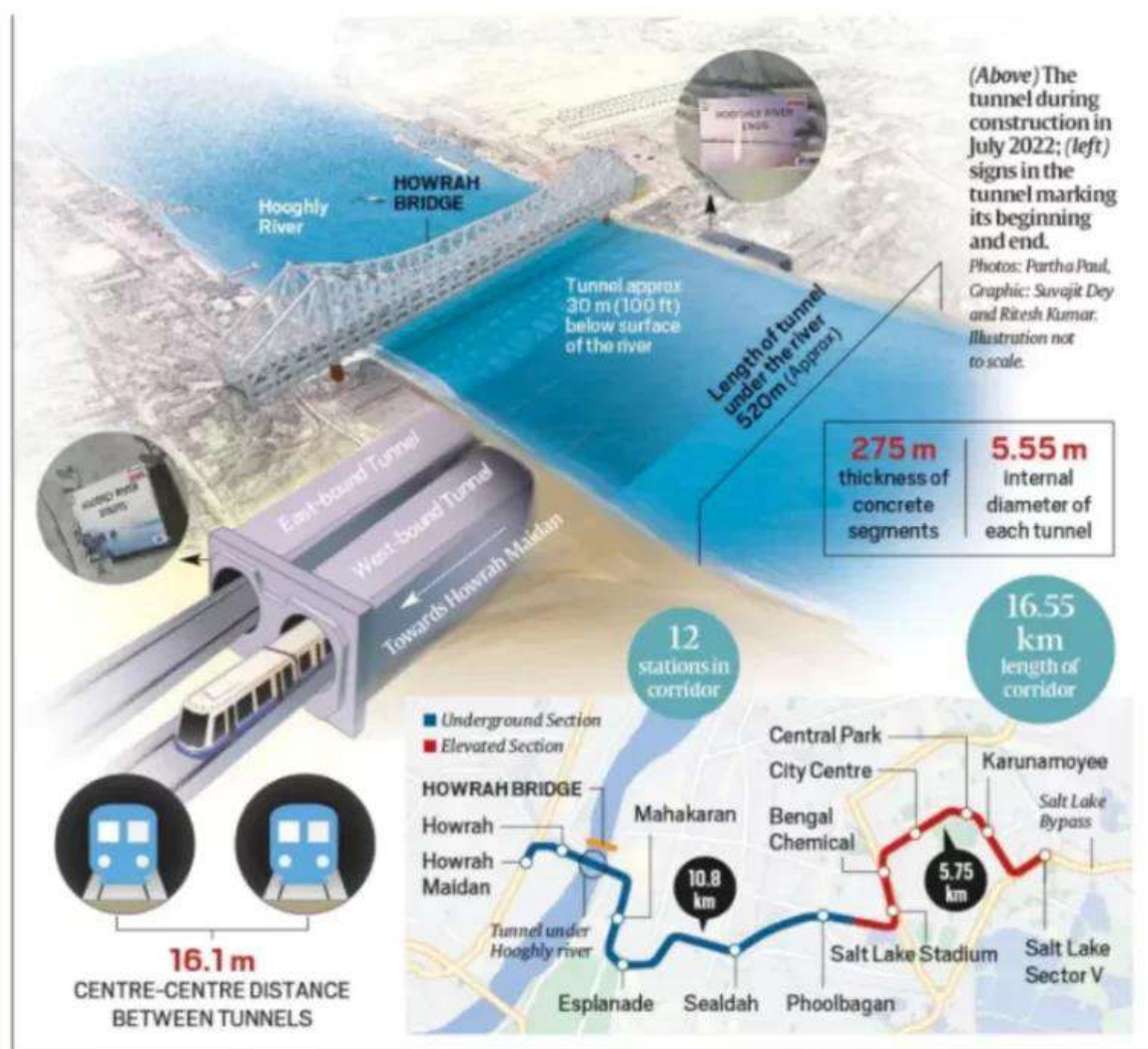
72. Big leap for chip mission: 3 plants get Govt nod

News:

- Recently, the Union Cabinet approved **three semiconductor projects** worth approximately Rs 1.26 lakh crore.
- This marked a significant step towards bolstering India's chip manufacturing capabilities.

Prelims Takeaway
- Semiconductors
- Production Linked Incentive (PLI) Scheme

Key Highlights
- The projects aim to address the **growing demand for chips** across various industries.
- This includes high-performance computing, electric vehicles, defence and consumer electronics.

The Projects

1. **A semiconductor fab in Dholera, Gujarat**
- This will be established by Tata Electronics in collaboration with Taiwan's Powerchip Semiconductor Manufacturing Corp.
- It will specialise in producing **high-performance computer chips** using 28 nm technology that will find applications in EVs, telecom, defence, etc.
- With a production capacity of 300 crore chips annually, this facility will play a crucial role in meeting the country's semiconductor needs.

2. **A semiconductor unit in Morigaon, Assam**
- This will be set up by the Tata Semiconductor Assembly and Test Pvt Ltd (TSAT), with an investment of Rs 27,000 crore.
- This is poised to churn out an impressive 48 million chips per day, catering to the automotive and electric vehicle sectors.

3. **A semiconductor unit in Sanand, Gujarat**
- This will be established by CG Power with an investment of Rs 7,600 crore.
- It is in conjunction with Japan's Renesas Electronics Corp and Stars Microelectronics of Thailand.

Significance
- The approvals underscore India's efforts to **strengthen its semiconductor industry** amidst geopolitical tensions and global supply chain disruptions.
- The initiative is expected to bolster India's semiconductor market, projected to reach $63 billion by 2026.
- These developments are part of India's broader vision to position **India as a global hub for semiconductor manufacturing.**
- The projects are expected to **create around 1 lakh indirect jobs,** contributing to economic growth and offering leverage in the global chip industry.

Government Incentives
- The projects benefit from the government's **Rs 76,000 crore chip incentive scheme,** which provides **subsidies** for a plant's capital expenditure costs.
- There are also schemes like the **production linked incentive (PLI)** plan for smartphone and laptop manufacturing.
- Additionally, states offer incentives such as **land acquisition** benefits to attract semiconductor investments.

73. Regulatory Sandbox scheme

News:
- Recently, the RBI revamped its **regulatory sandbox framework** to **promote innovation in the financial sector.**

Prelims Takeaway
- Regulatory Sandbox (RS) Scheme
- Digital Personal Data Protection Act, 2023
- Payments Bank

Key Changes in the Framework
- The new framework enables technology firms to **submit on-tap proposals,** replacing the previous cohort-based system.
- **Timelines** for various stages of the regulatory sandbox process have been **extended** from seven months to **nine months.**
- The **target applicants** for entry to the RS are fintech companies, including startups, banks, financial institutions, any other company, Limited Liability Partnership (LLP) and partnership firms, partnering with or providing support to financial services businesses.
- Sandbox entities are now required to comply with provisions of the **Digital Personal Data Protection Act, 2023,** ensuring data security and privacy.

Addressing Concerns
- The move comes amidst concerns that RBI's stringent stance on regulatory compliance, as seen in the case of Paytm Payments Bank, could stifle innovation.

- The new framework aims to strike a **balance between fostering innovation and ensuring regulatory compliance.**

Regulatory Sandbox (RS) Scheme

- The RBI had issued the **'Enabling Framework for Regulatory Sandbox'** in August 2019.
- The scheme involves **live testing of new financial products or services** in a **controlled regulatory environment.**
- It acts as a **"safe space"** for business as the regulators may or may not permit certain relaxations for the limited purpose of testing.
- It allows regulators, innovators, financial service providers, and customers to test new financial innovations, collecting evidence on benefits and risks.
- It facilitates the development of **innovation-friendly regulations,** enabling the delivery of **low-cost financial products.**
- It is potentially an important tool which enables more **dynamic, evidence-based regulatory environments** that adapt to emerging technologies.

74. Govt. capex shrank 40.5% in January leaving fiscal deficit at 64%

News:

Prelims Takeaway
• Fiscal Deficit
• Fiscal Responsibility and Budget Management (FRBM) Act

Spending squeeze

Govt. shrinks January capital expenditure by a sharp 40.5% to ₹47,600 crore containing 10-month fiscal deficit at 64% of RE

- Overall fiscal deficit stood at ₹11 lakh crore by January
- Full-year capex likely to undershoot by at least ₹50,000 crore: ICRA's Nayar
- Less than 70% of planned expenditure met at agriculture, consumer affairs ministries: BoB's Sabnavis

75. RBI directs card issuers to let customers choose card network

News:

Prelims Takeaway
• RBI
• Card issuer

- The Reserve Bank of India (**RBI**) has **directed card issuers not to enter into any arrangement** or agreement with card networks that restrains them from availing the services of other card networks.
- The card issuer include which include **authorized payment system providers, banks and non-banks**

Key Highlights

- As per this directive, **card issuers will have to provide an option to their eligible customers** to choose from multiple card networks at the time of issue.
- For existing cardholders, this option needs to be provided at the time of the next renewal.
- These directions will be **effective six months from the date of issue of this circular.**
- As per the current practice, the authorized card networks tie-up with banks/non-banks for issuance of credit cards and the choice of network for a card issued to a customer is decided by the card issuer (bank/non-bank)

- o and is linked to the arrangements that the card issuers have with card networks in terms of their bilateral agreements, the RBI said.
- The banking regulator has asked card issuers and card networks to execute fresh agreements to accommodate the changes.

Shuffling cards

Card issuers told not to enter into any agreement with networks that restrains their ability to avail services from others

- The RBI order applies to all card issuers including authorised payment system providers, banks and non-banks
- Currently, authorised card networks in India include American Express, MasterCard Asia/Pacific, Rupay, and Visa
- RBI says the fresh directive has been issued keeping the interest of the payment system and public interest in mind

76. Gig workers suffer from lack of social security, regulation: study

Prelims Takeaway
• Gig worker

News:
- Almost a **third of app-based cab drivers work for over 14 hours a day**
- More than 83% work more than 10 hours and 60% work over 12 hours, according to a study of more than 10,000 Indian cab drivers, gig and platform workers.

Key Highlights
- It noted that social disparities make the situation worse, with over 60% of the drivers from the Scheduled Castes and Tribes working for over 14 hours a day, while only 16% from the unreserved category work such long hours.
- The study was conducted by the People's Association in Grassroots Action and Movements, and the Indian Federation of App-based Transport Workers
  - o with technical support from the University of Pennsylvania and Friedrich-Ebert-Stiftung India, a German foundation.
- Authors of the study, recommended **stronger social security for app-based workers**
  - o and called on the government to exercise oversight on the fairness of algorithms and mechanisms used by platforms to monitor such workers.
- The study report says that over **43% of participants in the study earn less than ₹500 a day or ₹15,000 a month,** after deducting all their costs.
- It found that 34% of the **app-based delivery persons earn less than ₹10,000 a month**, while 78% spend over 10 hours each day at work.
- Noting the differences among workers from different castes, the report said that "these income disparities further exacerbate the already existing social inequalities
  - o and perpetuate cycles of poverty and distress within these communities".
- Overall, 5,302 cab drivers and 5,028 delivery persons across eight cities — **Delhi, Hyderabad, Bengaluru, Mumbai, Lucknow, Kolkata, Jaipur, and Indore**

o participated in a 50-question survey; 78% of the respondents were in the age group of 21 to 40 years.

- Another major complaint of the workers is the issue of **ID deactivation and customer misbehavior.**

Constantly at work

Asked if they take a single day off in a week, 40% of the app-based workers surveyed said "No"
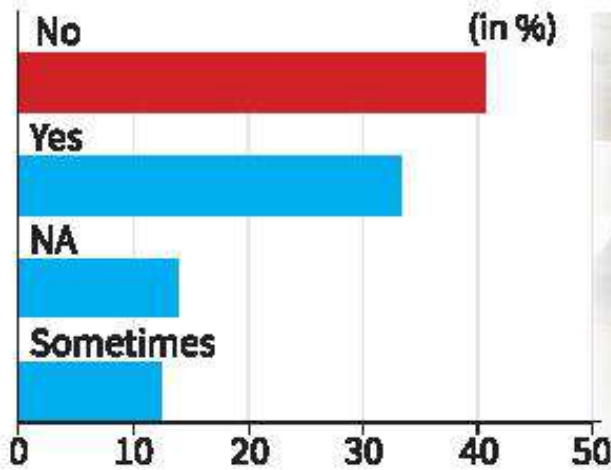
77. Index of industrial production grows by 3.8 per cent

News:

Prelims Takeaway
• IIP
• Laspeyre's formula

- The Ministry of Statistics and Programme Implementation has released the Quick Estimates of the Index of Industrial Production (IIP) for January 2024, revealing a growth of 3.8 per cent.

Index of Industrial Production (IIP):

- It is one of the prime indicators of economic development for the measurement of trends in the behavior of industrial production over a period of time with reference to a chosen base year.
- It is a short-term indicator measuring industrial growth until the **actual result of detailed industrial surveys become available.**
- It indicates the relative change in physical production in the field of industries **during a specified year as compared to the previous year.**
- It is computed and **published by the Central Statistical Organisation (CSO), Ministry of Statistics and Programme Implementation**, on a monthly basis.
- The IIP is a quantum index, the production of items is expressed in physical terms.
- However, the unit of reporting in respect of certain items like machinery, machine tools, shipbuilding, etc. is in value terms.
- It is compiled as a simple weighted arithmetic mean o**f production relatives by using Laspeyre's formula.**
- In order to remove the effect of price rises from the index, the production figures of such items are deflated on the basis of Wholesale Price Indices (Base 2011-12), compiled by the Office of Economic Adviser, Ministry of Commerce and Industry, before the compilation of the index.
- The base year is always given a value of 100.

- The current base year for the **IIP series in India is 2011-12.**
- So, if the current IIP reads as 116, it means that there has been 16% growth compared to the base year.

78. RBI likely to 'upgrade' some NBFCs

News:

Prelims Takeaway
• NBFC
• RBI

- Nearly two years after introducing a revised
- regulatory framework for non-banking finance companies (NBFCs), **the Reserve Bank of India is set to review the categorisation of NBFCs in 2024.**

Key Highlights
- the review has become imminent given how **NBFCs have exploded in terms of growth**
- Some NBFCs **backed by large corporate houses** and conglomerates could be in focus for the purpose of this review

'Top layer NBFCs'
- "Based on specific parameters, some **NBFCs could be moved to the top layer from the upper layers, and depending on how they perform in the top layer**
- Currently, **16 non-banks are placed in the upper layer** of which nine NBFCs, including Tata Sons Private Ltd., are led by large business houses.

Basis of upgradation
- It is learnt that merely scale and size of an NBFC may not be a determining factor for upgradation in scale.
- **Scale based regulations came into effect** in October 2021 and was implemented a year later.
- There are four layers namely base layer, middle layer, upper layer and top layer.
- As on September 30, 2023, NBFCs in the base, middle and upper layers constituted 6%, 71% and 23% of the total assets of NBFCs respectively.
- Presently, **no NBFC is listed in the top layer.**

NBFC
- it is a company **registered under the Companies Act 1956** engaged in the business of loans and advances
  - acquisition of shares/stocks/bonds/debentures/securities issued by the Government or local authority or other marketable securities of a like nature.
- They offer various banking services but **do not have a banking license.**
- They provide banking **services like loans, credit facilities, TFCs, retirement planning**, investing and stocking in the money market.
- Generally, these institutions are **not allowed to take traditional demand deposits**
- NBFCs also provide a wide range of **monetary advice like chit-reserves and advances.**

79. Paytm to become third-party application provider

News:

Prelims Takeaway
• NPCI
• UPI

- The National Payments Corporation of India (**NPCI**) said recently, it has granted One97 Communications Ltd (**OCL) to participate in Unified Payments Interface (UPI**) as Third-Party Application Provider (TPAP) under multi-bank model.

Key Highlights
- NPCI said four banks – **Axis Bank, HDFC Bank, State Bank of India and YES Bank – will act as PSP (Payment System Provider)** banks to OCL, which is the parent company of Paytm.
- Last month, the Reserve Bank of India (RBI) directed NPCI, which owns and operates the UPI platform, to consider a request by OCL to become a TPAP.
- **A Third-Party Application Provider** is an entity that **provides the UPI compliant app(s) to the end-user customers** to facilitate UPI-based payment transactions.

- These applications could be mobile wallets, merchant apps, or any other platform that utilises UPI for payments.
- Currently, all UPI transactions on the Paytm app are being routed through Paytm Payments Bank (PPBL), an associate company of OCL, which is now registered as TPAP.

Unified Payments Interface (UPI)

- It is an advanced version of Immediate Payment Service (**IMPS)- round–the-clock funds transfer service to make cashless payments** faster, easier and smoother.
- UPI is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
- UPI is currently the **biggest among the National Payments Corporation of India** (NPCI) operated systems including
  - National Automated Clearing House (NACH), Immediate Payment Service (IMPS), Aadhaar enabled Payment System (AePS), Bharat Bill Payment System (BBPS), RuPay etc.
- The top UPI apps today include PhonePe, Paytm, Google Pay, Amazon Pay and BHIM, the latter being the Government offering.

80. Railways plans to develop multi-modal transport hubs

News:

Prelims Takeaway
- Indian Railways
- Viksit Bharat' initiative

- The **Indian Railways will create mega railway terminals with multi-modal connectivity** in aspirational cities with a population of more than 10 lakh across the country.

Key Highlights

- The programme is part of the infrastructure being **developed for Prime Minister 'Viksit Bharat' initiative.**

'Enhancing experience'

- The Railway Ministry has also taken up enhancement of passenger experience on a mission mode and warned that any laxity on the part of its senior officers will not be tolerated.
- With the proliferation of Vande Bharata Express trains across the country, **which are being projected as game changers**
- the Railway Board has taken up the task of enhancing the travel experience of passengers through improved cleanliness of coaches and properly maintained amenities on railway premises.

Some facts about Indian Railways:

- **Network**: Indian Railways covers a distance of over 67,000 km and operates on more than 7,000 stations. It connects almost all parts of the country and transports millions of passengers and goods every day.
- **Freight**: Indian Railways carries over 3 million tonnes of freight every day, which is equivalent to moving the entire population of Mumbai every day. In a year, it transports more than 1 billion tonnes of freight.
- **Revenue**: Indian Railways is one of the largest revenue generators for the Indian government. In 2019-20, it generated a revenue of over INR 1.9 trillion (approximately USD 25 billion).
- **Technology**: Indian Railways has introduced several technological advancements in recent years, such as the use of GPS-based train tracking, online reservation system, and bio-toilets in trains.
- **Heritage**: Indian Railways has a rich heritage, with some of its trains and stations being over a century old. The Darjeeling Himalayan Railway and the Nilgiri Mountain Railway are UNESCO World Heritage Sites.

81. Trade mark

News:

Prelims Takeaway
- Trade mark
- Patent

- A recent **Delhi High Court ruling revoked a trademark registration** due to concerns about misleading customers (passing off).

Protecting Reputation without a Registered Trademark

- "Passing off" is a legal concept that protects the established reputation (goodwill) of a business, even if its trademark isn't officially registered.
- It prevents others from misleading customers by using similar branding or misrepresenting their products or services as belonging to the well-known business.

Registered vs. Unregistered Trademarks
- If a trademark is registered and someone infringes on it, that's a separate legal issue.
- But "passing off" applies when a trademark isn't registered and someone deceives customers into thinking their goods or services are connected to the established business.

Taking Action Against Misrepresentation
- The law recognizes the right of a business to defend its reputation from such misleading practices.
- The business owner can take legal action to stop the deception and protect their customer base.

How Deception Happens
- "Passing off" occurs when someone uses a similar brand name, design, or marketing strategy that creates confusion among customers.
- This can lead them to believe they're buying from the original business, potentially damaging the established brand's reputation.

Beyond Products and Services
- "Passing off" isn't limited to just products and services.
- It can also apply to broader business activities and initiatives, protecting the goodwill associated with a company's overall image.

The Challenge of Proving Deception
- It's important to note that proving "passing off" can be difficult.
- The business owner needs to demonstrate a likelihood of customers being misled about the origin of the products or services in question.

82. Revenue-based financing

News:

Prelims Takeaway
• Revenue-based financing
• Equity

- **Revenue-based financing** (RBF), or non-collateralized debt against a percentage of gross revenue, is **gaining traction amongst startups and digital SMEs**
- Venture capital flow continues to be dry and traditional credit remains out of reach for many.

Funding Your Business Based on Sales, Not Ownership
- Revenue-based financing offers an alternative to traditional loans and investments for growing businesses, especially those with predictable online sales.
- Instead of giving up ownership (equity) or fixed loan repayments with interest, **you get funding in exchange for a share of your future monthly revenue**, plus a one-time fee.

How it Works:
- Perfect for businesses with steady online sales, like cloud kitchens or software firms.
- You receive capital upfront and repay a percentage of your gross revenue each month, typically until you've paid back 3-5 times the original investment amount.
- There are no fixed interest rates or loan repayments, so your payments fluctuate with your sales.
- Unlike loans, you don't need collateral (assets used as security).
- Unlike equity investments, you don't give up ownership of your company.
- Investors get a return based on your success, and you get the capital you need to grow without giving up control.

83. At WTO, India tries to lower cost of cross border remittances

News:

Prelims Takeaway
• WTO
• MC 13

- India is strongly pursuing its proposal **for lowering the cost of cross-border remittances**, which it made last month at the largely inconclusive **WTO's 13th Ministerial Conference in Abu Dhabi**

- It has now asked the multilateral body's general council (GC) to initiate a work programme to make recommendations for the same

Key Highlights
- "The National Payments Corporation of India is working on a presentation for a session on 'cost of remittances' being held by the WTO's committee
  - on trade in financial services' in Geneva, drawing from its experience of putting in place a robust physical as well as electronic payment and settlements systems in the country,"
- Lowering the costs of remittances would mostly benefit low and middle-income countries that accounted for 78% of remittances flow in 2023, as per estimates.
- India, in its draft proposal at MC13 in Abu Dhabi last month, pointed out the global average cost for sending remittances remained high at 6.18% — more than twice the SDG target.

Promoting interlinkage
- The global average cost for digital remittances at 4.84% is significantly lower than the cost for non-digital remittances,

Remittances
- Remittances are money transfers that migrants send to their families and friends in their home countries.
- **India is the largest recipient of remittances in the world** receiving US$ 100 bn in 2022.
- Remittances are the second largest major source of external financing after service export

top sources of remittances for India
- **Almost 36% of India's remittances are from the high-skilled** and largely high-tech Indian migrants in three high-income destinations
  - The **US, United Kingdom, and Singapore.**
- The post-pandemic recovery led to a tight labour market in these regions, and wage hikes boosted remittances.

84. Inequality dipped over the past decade'

News:
- The Finance Ministry asserted that India experienced "inclusive growth" over the past decade, citing "reassuring findings" of the Household Consumption Expenditure Survey of 2022-23.

Prelims Takeaway
• Household Consumption Expenditure Survey

Key Highlights
- "The rural-urban divide in MPCE [monthly per capita consumption expenditure] has declined considerably," the Ministry said.
- "Within rural and urban areas, the consumption of the lowest 5% of the MPCE population grew at a faster rate than the top 5%,
  - pointing to a decline in inequality over the last decade."
- Juxtaposing the MPCE numbers with per capita gross national income, reveal an inclusive trend in economic growth, it held.
- "The MPCE/PCI ratio has increased for all consumption classes except the top 5% in rural India and the top 10% in urban India.

Household Consumption Expenditure Survey (HCES)
- It is conducted by the **National Statistical Office** (NSO) every 5 years.
- It is designed to collect information on the consumption of goods and services by households.
- The data collected in HCES is also utilized for deriving various other macroeconomic indicators such as Gross Domestic Product (GDP), poverty rates, and Consumer Price Inflation (CPI).
- NITI Aayog has stated that the latest **consumer expenditure survey indicated that poverty has come down to 5% in the country.**
- The findings of the last HCES, **conducted in 2017-18 were not released after the government cited "data quality" issues.**
- Information Generated: Provides information on the typical spending on both goods (including food and non-food items) and services.

- Additionally, assists in calculating estimates for household Monthly Per Capita Consumer Expenditure (MPCE) and analyzing the distribution of households and individuals across different MPCE categories.

Highlights of the Recent Survey
- The estimates of average monthly per capita consumption expenditure were generated
  - Without imputing the value figures of the items received free by the households through various social welfare programmes
  - Such as Pradhan Mantri Garib Kalyan Yojana.

85. NAAC'S accreditation system

News:
- The National Assessment and Accreditation Council (NAAC), in its executive council meeting on, decided to introduce a binary categorisation of "accredited" or "not accredited" for higher educational institutions

Prelims Takeaway
• NAAC
• UGC

NAAC: Ensuring Quality in Indian Higher Education
- Established in 1994, the NAAC is an independent body under the Ministry of Education that acts as a quality check for colleges and universities in India.
- Like a reviewer for restaurants, the NAAC evaluates and rates these institutions based on seven key areas, including curriculum, teaching methods, research output, and student support.
- Institutions that meet NAAC's standards receive accreditation, valid for five years, which signifies their commitment to quality education.
- Ratings range from A++ (highest) to C, with D indicating the institution is not accredited.
- Universities and colleges that have been around for at least six years or have graduated two batches of students can apply for NAAC's evaluation process, which is currently voluntary.
- NAAC operates under a General Council and an Executive Committee, both packed with experts from India's higher education system.
- This ensures fair and informed decisions when evaluating institutions.

86. Employment scenario in India grim, says ILO report

News:
- Recently, The India Employment Report 2024 was released by the International Labour Organisation (ILO) and the Institute of Human Development (IHD).
- The share of those with secondary or higher education among the unemployed youth in India has almost doubled from 35.2% in 2000 to 65.7% in 2022,

Prelims Takeaway
• LFPR
• Unemployment rate

Key Highlights
- The report says that youngsters account for almost 83% of the country's unemployed workforce.
- Employment and underemployment of the youth increased between 2000 and 2019 but declined during the pandemic years, the study, released by Chief Economic Adviser V. Anantha Nageswaran, said
- The Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR) and Unemployment Rate (UR) showed a long-term deterioration between 2000 and 2018,
  - but witnessed an improvement after 2019, the study said.

The paradoxes
- non-farm employment grew at a higher rate than farm employment over the different periods prior to 2018
- Labour from agriculture was mainly absorbed by the construction and services sectors.
- Also, almost 90% of workers remain engaged in informal work, while the share of regular work, which steadily increased after 2000, declined after 2018.
- There are widespread livelihood insecurities, the report added, with only a small percentage being covered with social protection measures, precisely in the non-agriculture, organised sector.

- While India's large young workforce is a demographic dividend, the report noted that they don't appear to have the skills to deliver
  - With 75% of youth unable to send emails with attachments, 60% unable to copy and paste files, and 90% unable to put a mathematical formula into a spreadsheet.
- The country is also facing the challenge of a substantial gender gap in the labour market, with low rates of female labour force participation.

Social inequalities

- Despite affirmative action and targeted policies, the Scheduled Castes and Scheduled Tribes still lag in terms of access to better jobs.
- "Scheduled Castes and Scheduled Tribes have greater participation in work due to economic necessity but engaged more in low-paid temporary casual wage work and informal employment
- Despite improvement in educational attainment among all groups, the hierarchy within social groups persists," the report added.

Employment blues

Labour participation for various sections increased slightly in 2022 (compared to 2019) but was still low vis-a-vis 2000
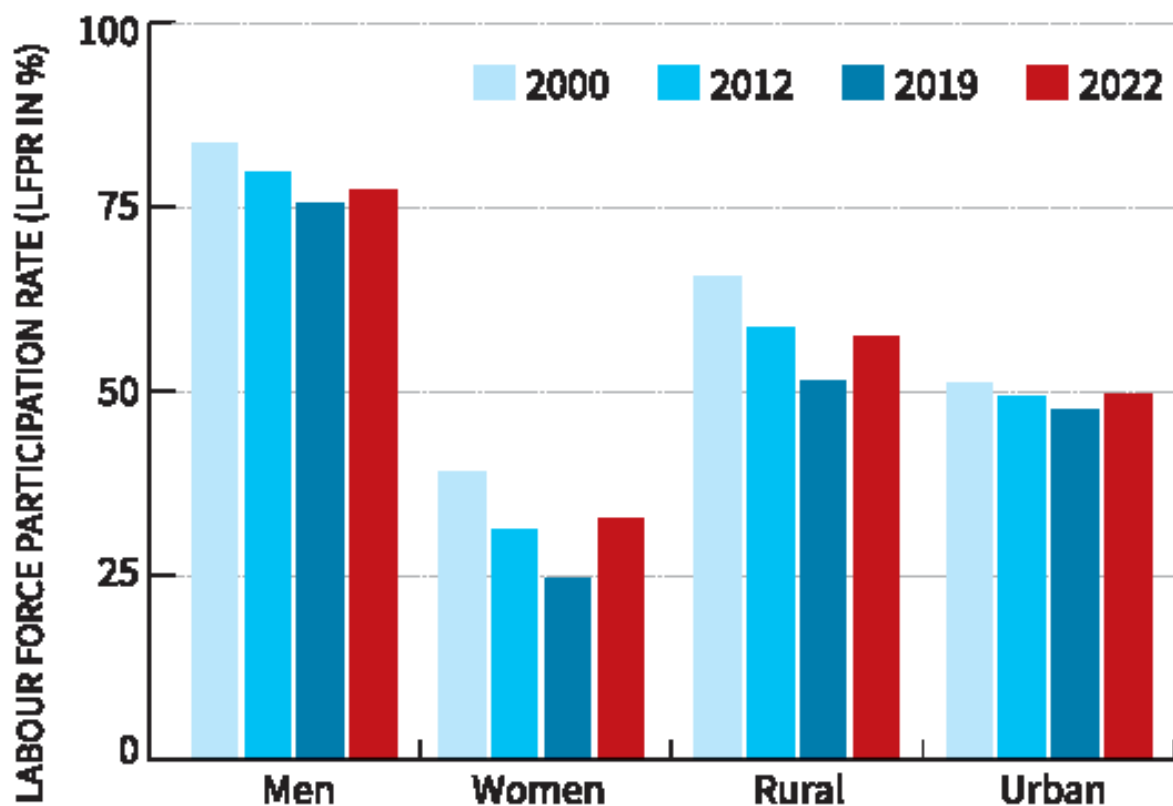
87. Drop in FDI mirrors global trend'

News:

- **The decline in India's net foreign direct investment (FDI) inflows**, which had dropped almost 31% to $25.5 billion over the first 10 months of 2023-24

Prelims Takeaway
• FDI
• FPI

- It was in line with the slowdown in such investments to developing countries, the Finance Ministry has said, while holding out hope for an uptick in investments in this calendar year.

Key Highlights

- While overall global FDI flows rose 3% to an estimated $1.4 trillion in 2023, economic uncertainty and higher interest rates did affect global investment
- reflected in FDI flows to developing countries falling by 9%, the Ministry said in its February review of the economy's performance.
- Mirroring the slowdown in FDI flows to developing countries, gross FDI inflows to India also dipped but only slightly in the period April 2023-January 2024 [from $61.7 bn.
- Citing an UNCTAD report, the Ministry said that despite the drop in FDI inflows, the country witnessed "a stable number of new project announcements
  - keeping it in the top 5 destinations for global greenfield projects.
- The Netherlands, Singapore, Japan, the U.S.A. and Mauritius account for about 70% of the total FDI equity inflows into India, the Ministry added.

Slowing flows

Finance Ministry holds out hope for an uptick in investments this year even as FDI inflows witness a decline

2023, flows to developing countries fell by 9%

- Despite drop in FDI inflows, India saw a stable number of new project announcements
- Modest rise in global flows likely in 2024, thanks to a dip in inflation, borrowing costs
- While overall global FDI flows rose 3% to an estimated $1.4 trillion in

88. Alternative Investment Funds (AIFs)

News:

- The Reserve Bank of India (RBI) has **modified norms for regulated entities (REs)** concerning their **investments in Alternative Investment Funds (AIFs).**

Prelims Takeaway
• SEBI
• Alternative Investment Funds

Key Highlights

- As per the fresh directive, REs need to only set aside provisions to the extent their investment in an AIF scheme is further invested by the AIFs in a debtor's company, and not the entire investment in the AIF scheme.
- "Provisioning shall be required only to the extent of investment by the RE in the AIF scheme which is further invested by the AIF in the debtor company
  - and not on the entire investment of the RE in the AIF scheme," it added.
- The RBI had in December prevented REs from making investments in AIFs having downstream investments either directly or indirectly in any debtor's company of the REs.
  - This was to stop the evergreening of loans

Alternative Investment Funds (AIFs):

- It is a **special investment category** that differs from conventional investment instruments.

- **AIF is any fund established in India** which is a privately pooled investment vehicle that collects funds from sophisticated investors, both Indian or foreign, for investing.
- It pools funds from investors and invests them under different categories of investments as specified by the SEBIfor the benefit of investors.
- These investment vehicles adhere to **the SEBI (Alternative Investment Funds) Regulations, 2012.**
- AIFs can be formed as a company, Limited Liability Partnership (LLP), trust, etc.
- It is an investment option for high rollers, including domestic and foreign investors in India.
- Generally, institutions and high net worth individuals invest in AIF as it needs a high investment amount.

89. Procurement through centre's GeM portal

News:

Prelims Takeaway
• GeM
• PSU

- The procurement of goods and services through the centre's Government e-Market (GeM) portal has crossed Rs 4 trillion so far this fiscal
- buying activities by various ministries and departments have picked up pace, a senior government official said
- Launched in 2016, GeM (Government e-Marketplace) is an online platform for government agencies to buy and sell goods and services.
- It's mandatory for central and state government departments, PSUs, and affiliated organizations to use GeM for procurement.

Benefits of GeM:

- **Increased Efficiency, Transparency, and Speed**: GeM streamlines public procurement by offering various buying options like bidding and direct purchase.
- **Wider Selection and Price Comparison:** Buyers have access to a larger variety of products from numerous suppliers, allowing for price comparison and cost-effectiveness.
- **Benefits for Sellers**: Businesses gain easy access to the national public procurement market and government organizations, with a user-friendly platform for bids and monitoring.

Challenges for Informal Sector Sellers:

- **Registration Hurdles**: The current registration process can be lengthy and require documents like GSTIN or PAN cards, which informal sector businesses often lack.
- **Unrealistic Pricing**: Low mandated prices set by government departments and a compulsory minimum discount can make fulfilling orders unprofitable for small businesses.
- **Distance Factor**: Bids are often for distant locations, adding logistical costs and reducing profit margins.

Proposed Solutions:

- **Simplified Registration:** Streamlining the registration process, similar to the MSME Ministry's Udyam Portal, would make it easier for informal businesses to join GeM.
- **Dynamic Pricing:** A more flexible pricing system based on market rates and past orders could ensure fair compensation for sellers.
- **Local Matching:** Matching government orders with local vendors would reduce shipping costs and support local businesses, aligning with the "Vocal for Local" campaign.

Way forward

- Overall, GeM is a positive step towards a more efficient and transparent public procurement system.
- By addressing the challenges faced by informal sector sellers, GeM can further empower small businesses and create a more inclusive marketplace.

90. 60 traditional products from across India granted GI tag

News:

Prelims Takeaway
• Geographical Indication
• TRIPS

- Over 60 products from across India, including **Banaras Thandai, have been given the Geographical Indication (GI) tag.**
- This is the first time that s**uch a large number of products have been given the GI tag at one go**

Key Highlights
- **Six traditional crafts from Assam** — Asharikandi terracotta craft, Pani Meteka craft, Sarthebari metal craft, Jaapi (bamboo headgear), Mishing handloom products, and Bihu dhol — have bagged the GI tag.
- Thirteen other products from Assam have been given the tag, including the Bodo Dokhona, the traditional attire of Bodo women
- **Bodo Eri silk, r**eferred to as the fabric of peace or ahimsa (non-violence), which comes from the silkworm Samia ricini that feeds mostly on the leaves of the castor plant (Ricinus communis), and cassava.
- Bodo Jwmgra (a traditional scarf), Bodo Gamsa (traditional dress of Bodo men), Bodo Thorkha (a musical instrument), and Bodo Sifung (a long flute) are also on the list.
- The famous Banaras Thandai, a drink made by blending milk with a mix of nuts, seeds and spices, also got the tag.
- The Banaras Tabla, Banaras Shehnai, Banaras Lal Bharwamirch, and Banaras Lal Peda are among the products that walked away with GI tags in this region.
- The Tripura region secured two tags — one for the Pachra-Rignai, which is a traditional dress worn on special occasions, and the other for the Matabari Peda, a sweet preparation.
- Meghalaya Garo Textile weaving, which is linked to socio-cultural and religious rituals, Meghalaya Lyrnai Pottery, and Meghalaya Chubitchi also secured the tag.

Geographical Indication (GI) tag Tag
- A GI tag is a name or sign used on certain products that correspond to a specific geographical location or origin.
- The GI tag ensures that only the authorised users or those residing in the geographical territory are allowed to use the popular product name.
- It also protects the product from being copied or imitated by others.
- A registered GI is valid for 10 years.
- GI registration is overseen by the Department for Promotion of Industry and Internal Trade under the Ministry of Commerce and Industry.

ENVIRONMENT

91. Study flags mixed implementation of Forest Rights Act -The Hindu

News:
- A **fact-finding committee formed by Call for Justice**, a Delhi-based organisation, has found "**mixed**" **implementation of the Forest Rights Act (FRA) of 2006** in five States across the country.

Prelims Takeaway
- Community Forest Rights
- Forest right act

Key Highlights
- The States studied by an eight-member committee, led by Justice S.N. Dhingra (retd), over eight months are Assam, Chhattisgarh, Maharashtra, Odisha, and Karnataka.
- The FRA in its current form **does not address the unique situation** existing in the northeastern States concerning shifting or jhum cultivation.
- This form of cultivation involving slashing and burning plants on hill slopes needs to be recognised as a practice adapted to the ecological and cultural needs of the forest-dwelling communities
- The FRA implementation in Maharashtra's Gadchiroli was found to be satisfactory while the process was not completed in Nashik.
- The team found "substantial advancement" in the implementation of FRA in Kandhamal and Sundargarh districts of Odisha.
- However, it was observed that a s**ignificant gap existed in the districts between individual forest rights (IFR) and community forest rights (CFR) claims** submitted and recognised.

Forest Rights Act, 2006

- The **Act recognizes and vests the forest rights and occupation** in Forest land in Forest Dwelling Scheduled Tribes (**FDST**) and Other Traditional Forest Dwellers (**OTFD**) who have been residing in such forests for generations.
- Forest rights can also be claimed by any member or community who has for at least three generations (75 years) prior to the 13th day of December, 2005
  - primarily resided in forest land for bona fide livelihood needs.
- It strengthens the conservation regime of the forests while **ensuring livelihood and food security of the FDST and OTFD.**
- The Gram Sabha is the authority to initiate the process for determining the nature
- and extent of Individual Forest Rights (IFR) or Community Forest Rights (CFR) or both that may be given to FDST and OTFD.

92. Status of Leo[ards in India Report

News:
- Recently, the Environment Ministry released a report on the **Status of Leopards in India.**
- The survey **covered 20 states,** focusing on approximately **70% of the leopard's expected habitat,** including tiger reserves and protected forest areas.

Key Findings
- India's leopard population **increased** from 12,852 in 2018 **to 13,874 in 2022, an 8% rise.**
  - But, this estimation covers 70% of leopard habitat, excluding areas like the Himalayas and semi-arid regions.
- **Madhya Pradesh** reported the **highest** number of leopards (**3,907**), followed by Maharashtra, Karnataka, and Tamil Nadu.
- While **Central India** witnessed a **stable or slightly growing population,** regions like the **Shivalik hills** and **Gangetic plains** experiencd a **decline**.
  - Uttarakhand experienced a 22% decline in leopard numbers due to poaching and man-animal conflict.
  - Approximately 65% of the leopard population exists outside protected areas in the Shivalik landscape.
- Arunachal Pradesh, Assam, and West Bengal collectively saw a 150% rise in leopard numbers, reaching 349 animals.
  - The sharp rise in leopard numbers in northeastern states was attributed to sampling artefact.
- Tiger Reserves or sites with highest leopard population are, **Nagarajunasagar Srisailam (AP),** followed by Panna (MP), and Satpura (AP).

The Indian Leopard (Panthera pardus fusca)
- The Indian Leopard, **smallest of the big cats,** is a leopard subspecies widely distributed in the Indian subcontinent.
- They are known for their **ability to adapt to a variety of habitats.**
- They are **strong** and **agile predators** that can **climb trees** and drag their prey up for safety.
- **Conservation Status**
  - IUCN Red List: Vulnerable
  - CITES: Appendix I
  - Wildlife (Protection) Act, 1972: Schedule I

Prelims Takeaway
- The Indian Leopard
- Status of Leopards in India
- National Tiger Conservation Authority (NTCA)

93. International Big Cat Alliance (IBCA)

Prelims Takeaway
- The International Big Cat Alliance (IBCA)
- Project Tiger

News:

- Recently, the Union Cabinet approved the establishment of the **International Big Cat Alliance (IBCA)** with **headquarters in India.**

• International Solar Alliance (ISA)

The International Big Cat Alliance (IBCA)

- The concept of IBCA was introduced by the **Prime Minister of India** during **Global Tiger Day** in 2019.
- **Objective:** To spearhead efforts towards the protection and conservation of the **seven major big cats** viz. tiger, lion, leopard, snow leopard, puma, jaguar, and cheetah.
  - Out of these five big cats viz. Tiger, Lion, Leopard, Snow Leopard and Cheetah are found in India.
- It aims to unite 96 big cat range countries, non-range countries, conservation partners, scientific organizations, and corporate entities
- **Funding**
  - The Government of India has allocated a one-time budgetary support of Rs.150 crore for the period from 2023-24 to 2027-28.
  - The alliance will also explore contributions from bilateral and multilateral agencies, financial institutions, and donor agencies to augment its corpus.
- **Activities:** knowledge sharing, capacity building, networking, advocacy, financial support, research, technical assistance, education, and awareness.
- The alliance emphasizes on integrating biodiversity policies with SDGs and mainstreaming biodiversity across sectors.

Governance and Funding

- IBCA's governance structure includes a **General Assembly of Members**, a **Council of elected member countries** and a **Secretariat.**
- The **General Assembly appoints the Secretary General** of IBCA upon the **recommendation of the Council.**
- The **framework** of agreement is modelled after the **International Solar Alliance (ISA)** and will be finalised by the **International Steering Committee (ISC).**

94. India's snow leopard count

News:

- A new report by the Indian government reveals an **8% increase in the national leopard population since 2018, with an estimated 13,874 leopards in India.**

Prelims Takeaway
• Eastern Ghats
• Western Ghat

- However, **the survey, covering 70% of leopard** habitat across 20 states, also identified regional variations.

Key Findings:

- **Overall growth**: The national leopard population increased from 12,852 in 2018 to 13,874 in 2022.

Regional disparities:

- **Central India and Eastern Ghats**: Stable or slightly growing populations (largest growth rate at 1.5% per year).
- **Shivalik hills and Gangetic plains:** Worrying decline of 3.4% per year.

Habitat distribution:

- 65% of leopards reside outside protected areas, particularly in the Shivalik landscape (foothills of the Himalayas).
- Madhya Pradesh has the highest number of leopards (3,907), followed by Maharashtra, Karnataka, and Tamil Nadu.
- Several states, including Odisha, Uttarakhand, Kerala, and Telangana, reported population declines.

Positive aspects:

- **Tiger conservation benefits leopards:** The report suggests that leopard populations thrive within tiger reserves due to increased prey availability and protection measures.

Threats:

- **Poaching**: Targeting leopards directly or poaching their prey (bushmeat trade).

- **Habitat loss:** Activities like mining and development threaten leopard habitats.
- **Road accidents:** A significant cause of leopard mortality.
- The report emphasizes the need for continued conservation efforts to address regional declines and mitigate various threats faced by leopards in India.

95. UNEA-6

News:

- **Global production and consumption of material resources has grown** more than three times over the last 50 years as per UNEP report
- It is growing at an average of more than 2.3 per cent a year, despite the increase being the main driver of the triple planetary crisis.

Prelims Takeaway
• UNEP
• International Resource Panel

Global Resource Use on the Rise, Unevenly Distributed: UNEP Report

Unequal Consumption:

- A new report by the UN Environment Programme (UNEP) and the International Resource Panel (IRP) reveals a stark picture of global inequality in resource consumption.

High-income countries:

- Drive most resource demand, **responsible for over 55% of greenhouse gas emissions and 40% of particulate matter pollution.**
- Consumption has more than doubled in the past 50 years.

Low-income countries:

- Consume six times less resources than wealthy nations.
- Generate 10 times less climate impact.

Resource Use Trends:

- Global resource use has increased significantly since 1970 (30 billion tonnes to 106 billion tonnes in 2020).
- This trend is expected to continue, with potential growth of 60% by 2060.

Environmental Impacts:

- Current resource use patterns are unsustainable and contribute to the triple planetary crisis (climate change, biodiversity loss, and pollution).

Call to Action:

- The report urges resource efficiency and support policies to:
- Reduce material use.
- Minimize environmental impact.
- Improve well-being and economic growth, especially in the Global South.
- Decoupling economic growth from resource use is essential for a sustainable future.
- Transforming consumption patterns is crucial, with wealthy nations needing to drastically reduce consumption and developing nations requiring increased access to resources for basic needs.

Solutions:

- Implementing circular economy principles (refuse, reduce, redesign, reuse, repair, recycle).
- Supportive regulations and evaluation of existing systems.
- Embedding resources in environmental agreements.
- Defining sustainable resource use pathways.
- Implementing financial, trade, and economic incentives.

Report Scope:

- Analyzes resource use trends, impacts, and distribution across different income groups and regions.
- Offers solutions for sustainable resource use and reducing inequalities.

96. U.N. warns of climate change impact on women run farms

News:

- **Women who run farms and rural households in poor countries suffer more from climate** change and are

Prelims Takeaway
• FAO
• United Nations

discriminated against as they try to adapt to other sources of income in times of crises, the United Nations warned

Key Highlights of report

- **A new report by the Food and Agriculture Organisation**, The Unjust Climate, found that
  - female-headed rural households lose on average 8 per cent more of their income during heat waves and 3 percent more during floods, compared to male-headed households.
- That disparity translates into a per capita reduction of USD 83 due to heat stress
  - USD 35 due to floods coming up to an annual total of USD 37 billion and USD 16 billion respectively in poor countries, the UN agency said in the report.
- Considering the significant existing differences in **agricultural productivity and wages between women and men, the study suggests**
  - That if not addressed, climate change will greatly widen these gaps in the years ahead, FAO said.
- Significantly, the report noted that few government plans to address climate change and promote adaptation strategies take into account the specific vulnerabilities of rural women and youths.
- Only 6 percent of the more than 4,000 proposals contained in the national climate adaptation plans of the countries surveyed mentioned women.
- The report noted that in many poor countries, **women are discriminated against in their ability** to have rights to land or to make decisions over their work.
- When they then try to diversify their sources of income as a result of climate crises reducing farm and livestock productivity
  - They also face discrimination in gaining access to information, financing and technology.
- The report called for **targeted strategies to address the particular vulnerabilities of rural households headed by women.**
- 'Social differences based on locations, wealth, gender and age have a powerful
  - Yet poorly understood, impact on rural peoples' vulnerability to the impacts of the climate crisis

97. Carbon capture

News:

- Germany announced that it would allow **carbon capture and off-shore storage for certain industrial sectors**, such as cement production to help meet its target of becoming carbon neutral by 2045.
- The country is **currently the biggest carbon dioxide (CO2) emitter in Europe**.

Prelims Takeaway
• CO_2
• Carbon Capture and Storage

carbon Capture and Storage (CCS

- CCS is a technology that **captures carbon dioxide (CO2), a greenhouse gas, from industrial facilities** and power plants, and then stores it deep underground.
- This is different from simply removing CO2 from the air, as CCS specifically targets emissions at the source.

The process involves three steps:

- **Capture**: CO2 is separated from exhaust gases using various methods like chemical solvents (post-combustion), gasification (pre-combustion), or pure oxygen burning (oxyfuel combustion).
- **Transport**: Captured CO2 is compressed into a liquid and transported through pipelines or other means to storage sites.
- **Storage**: CO2 is safely stored deep underground in geological formations like saline aquifers or depleted oil and gas reservoirs.
- While CCS offers a way to reduce greenhouse gas emissions, it's important to note that different capture methods have varying efficiency levels and energy requirements.

98. National Green Hydrogen Mission

Prelims Takeaway
• Green hydrogen

News:

- The Ministry of New and Renewable Energy (MNRE) plans to convene a meeting with relevant stakeholders **to discuss the development of specialised cylinders for green hydrogen storage.**

• National Green Hydrogen Mission

National Green Hydrogen Mission

- To make India the Global Hub for production, **usage and export of Green Hydrogen and its derivatives.**
- This will contribute to India's **aim to become Aatmanirbhar through clean energy and serve as an inspiration for the global Clean Energy Transition.**
- The Mission will lead to significant **decarbonisation of the economy, reduced dependence on fossil fuel imports,** and enable India to assume technology and market leadership in Green Hydrogen."
- **Exports**: Mission will facilitate export opportunities through supportive policies and strategic partnerships.
- **Domestic Demand**: The Government of India will specify a minimum share of consumption of green hydrogen or its derivative products such as green ammonia, green methanol etc. by designated consumers as energy or feedstock.
- The year wise trajectory of such minimum share of consumption will be decided by the Empowered Group (EG).
- **Competitive Bidding:** Demand aggregation and procurement of green hydrogen and green ammonia through the competitive bidding route will be undertaken.
- **Certification framework:** MNRE will also develop a suitable regulatory framework for certification of Green Hydrogen and its derivatives as having been produced from REsources.

99. SC stops Assam govt. move to de-notify rhino habitat

News:

- The **Supreme Court froze the Assam government's move to withdraw an almost 26-year-old notification** constituting the **Pobitora wildlife sanctuary,** which hosts one of the largest rhino populations in the country.

Prelims Takeaway
• Kaziranga Wildlife Sanctuary
• Pobitora Wildlife Sanctuary

Key Highlights

- The government reasoned that **declaration of the sanctuary was made without settling the rights of the people living** in villages in the area including Thengabhanga, Murkata and Mayong.
- These villagers belonged to the marginalized communities and had been residing in the area even before Independence.

Panel set up

- The government, **having withdrawn the 1998 notification** declaring the wildlife sanctuary,
- It had also constituted a committee to look into both the rights and claims of the forest dwellers in the area
  - as well as taking a considered decision, this time, to declare the Pobitora region as a wildlife sanctuary.

Pobitora Wildlife Sanctuary

- Pobitora Wildlife Sanctuary has the **highest density of one-horned rhinos** in the world and second highest concentration in Assam after Kaziranga National Park.
- It is often called **'Mini Kaziranga' due to similar landscape and vegetation.**
- The wildlife sanctuary is home to endangered one-horned rhinoceros and the other mammals such as Leopard, Leopard cat, Fishing cat, Jungle cat, Feral Buffalo, Wild pigs, Chinese pangolins, etc.
- About 72% of Pobitora Sanctuary consists of the wet savannah of Arundo donax and Saccharum.
  - The remaining area is covered by water bodies.
- **Water hyacinth** (an invasive aquatic plant) is a **major problem** to the area especially to waterfowl, as it forms thick mats on the water surface.

100. Overcoming theoretical limits on solar cell capacity

News:

- In photovoltaics – i.e. the study of conversion of light energy into electrical energy — the **Shockley-Queisser limit is a theoretical concept** that defines the maximum capacity of a solar cell to produce electricity.

Key Points

- Photovoltaic devices like solar cells allow us to harness solar energy.
- Photovoltaic cells are made of semiconducting materials like (doped) silicon.
- When sunlight interacts with a semiconductor, **it excites electrons from the lower-energy valence band to the higher-energy conduction band.**
- This transition leaves behind a vacancy in the valence band called a hole.
  - To be more precise, a hole is a vacant site where an electron is supposed to be.
  - Since it denotes the absence of an electron, a hole is also a place with positive charge.
- The process of an electron moving to the conduction band and **leaving a hole behind in the valence band creates an electron-hole pair.**
- These pairs are the fundamental charge carriers in semiconductors and play a crucial role in the operation of electronic devices.
- In short, electron-hole pairs create the photocurrent
  - an electric current created as a result of radiation in the semiconductor.
- We know that the efficiency with which a solar cell can produce an electric current when sunlight is incident on it can't be 100%
  - because some light particles (photons) pass through the material without interacting with it (i.e. transparency loss, around 25%)
  - some energy simply heats up the material without exciting the electrons (thermalisation, around 30%).
- As a result, **the maximum efficiency of a conventional solar cell is confined, and this range is called the Shockley-Queisser limit.**
- These days, a solar cell can convert only a third of the incident solar energy into electric energy.
- The semiconductor can't make use of photons with less energy than that required by electrons to jump across the band gap.
- Similarly, photons carrying significantly more energy than the size of the band gap only heat the device.
- Researchers have been trying to find ways to surpass the Shockley-Queisser limit and use more solar energy
- thus improve the cells' efficiency, but this has been easier said than done.

101. Plastic chemicals more than estimated: report

News:

- **At least 3,000 more chemicals are in plastics** — from food packaging to toys to medical devices — than previously estimated by environmental agencies
- A report published recently, found, raising questions over pollution and consumer safety.

Key Highlights

- While the United Nations Environment Programme (**UNEP) had previously identified around 13,000 plastic chemicals,**
  - the report by a team of European scientists found more than 16,000 chemicals in plastics
  - a quarter of which are thought to be hazardous to human health and the environment.
- To robustly solve plastic pollution, we have to look at the full life cycle of plastics and have to address the chemicals issue
- That's because **plastic chemicals can leach into water and food.**
- Such impacts include fertility issues and cardiovascular disease.

- Scientists flagged the need for greate**r transparency on what chemicals — including additives, processing aids, and impuri**ties — are going into plastics - including recycled products.
- A quarter of the identified chemicals lack basic information on their basic chemical identity, the report said.
- That's something a plastics treaty could help to address.
- Negotiations continue next month in Ottawa, Canada, with the aim of finalizing a treaty come December in the South Korean city of Busan.

UN Global Plastic Pollution Treaty
- In 2022, UN Member States agreed to start negotiating a new global plastic pollution treaty to end plastic pollution.
- This global plastic pollution treaty will be a legally binding, international agreement to end plastic pollution defining what measures to take, how and when to implement them.
- **UNEA Resolution 5/14**: Under this, the Intergovernmental Negotiating Committee (INC) was established to deliver a **global plastics treaty by 2025.**
- The INC began its work during the second half of 2022, **aiming to complete the negotiations by the end of 2024.**
- First session of the INC (INC-1) took place in Punta del Este, Uruguay from 28 November to 2 December 2022.
- Second session (INC-2) in Paris, France from 29 May to 2 June 2023.
- Third session (INC-3) in Nairobi, Kenya from 13 to 19 November 2023.
- **The fourth session** (INC-4) is Scheduled to take place at the Shaw Centre in Ottawa, Canada.

102. Delhi world's most polluted capital city

News:
- Bihar's Begusarai emerged as the world's most polluted metropolitan area while Delhi was identified as the capital city with the poorest air quality, according to a new report.

Prelims Takeaway
• WHO
• AQI

Key Highlights
The World Air Quality Report
- This report by IQAir, an air quality tech company, examines air pollution levels globally.
- They rank countries and cities based on how clean or dirty their air is.

How They Measure It:
- PM2.5 (fine particulate matter) is their main indicator of air quality.
- Data comes from over 30,000 monitoring stations in 134 countries.
- They use info from both government agencies and their own sensors.

WHO Air Quality Guidelines:
- The World Health Organization (WHO) sees air pollution as a major health threat.
- In 2021, they updated their air quality guidelines, recommending stricter limits for six pollutants.

Key Findings (2023):
- Most of the world has unhealthy air. Only 7 countries met the WHO's PM2.5 guideline.
- The top five most polluted countries are in Asia and Africa.
- India was the third most polluted country, with 42 of its cities in the top 50 most polluted globally.
- Nine out of the ten most polluted cities are in India.
- Overall, the report paints a concerning picture of global air quality.

Rank	Country	2023	2022	2021	2020	2019
1	Bangladesh	79.9	65.8	76.9	77.1	83.3
2	Pakistan	73.7	70.9	66.8	59	65.8
3	India	54.4	53.3	58.1	51.9	58.1
4	Tajikistan	49	46	59.4	30.9	--
5	Burkina Faso	46.6	63	--	--	--
6	Iraq	43.8	80.1	49.7	--	39.6
7	United Arab Emirates	43	45.9	36	29.2	38.9
8	Nepal	42.4	40.1	46	39.2	44.5
9	Egypt	42.4	46.5	29.1	--	18
10	Democratic Republic of the Congo	40.8	15.5	--	--	32.1

World's most polluted cities

Most polluted city ranking based on annual average PM2.5 concentration ($\mu g/m^3$)

City	PM2.5
Begusarai, India	118.9
Guwahati, India	105.4
Delhi, India	102.1
Mullanpur, India	100.4
Lahore, Pakistan	99.5
New Delhi, India	92.7
Siwan, India	90.6
Saharsa, India	89.4
Goshaingaon, India	89.3
Katihar, India	88.8
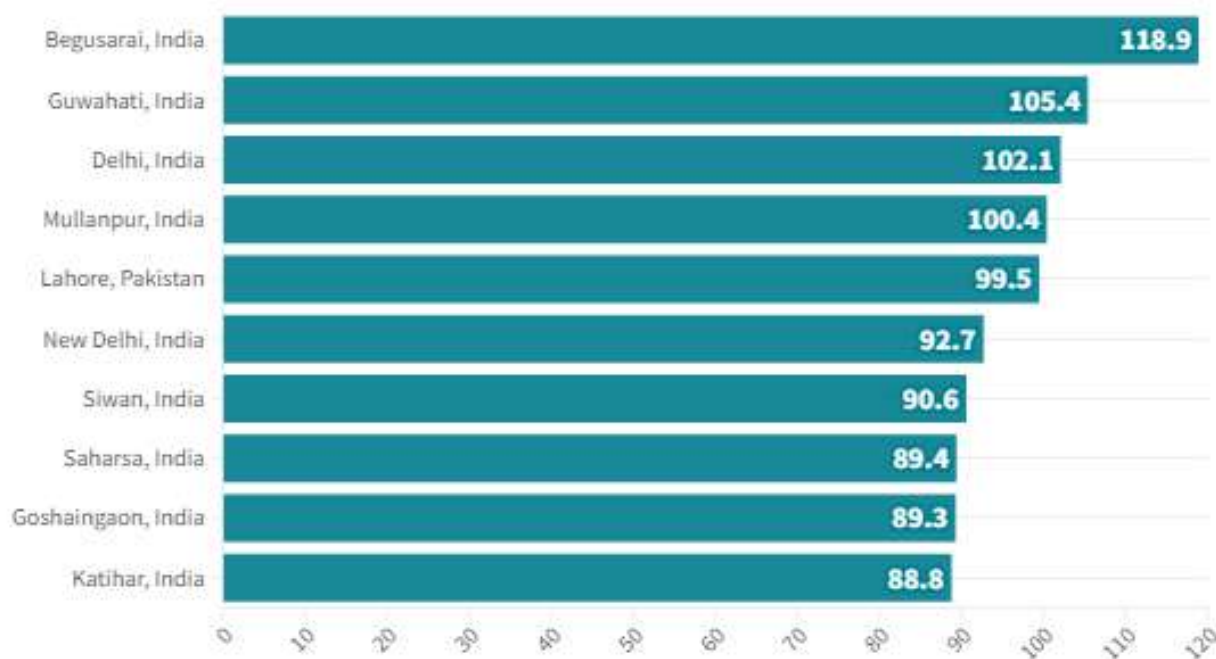
103. Delhi's biomining project

Prelims Takeaway
• Bioleaching

News:

	Biooxidation

- Delhi's biomining project to clear landfill sites is likely to miss the 2024 deadline. Slow progress due to fresh waste dumping and weather challenges.

Harnessing Tiny Miners: Biomining

- Biomining is a new wave of **metal extraction that uses microscopic allies - bacteria, algae, fungi, or even plants**
- These tiny workers break down rocks and minerals, freeing valuable metals like copper or gold.
- **This eco-friendly method doesn't rely on harsh chemicals** and has a much lower impact on the environment compared to traditional mining.

T**here are two main biomining techniques:**

- **Bioleaching**: Here, microbes dissolve the metals directly, making them easier to collect.
- **Biooxidation**: In this approach, microbes weaken the rock around the metal, making it easier to extract.
- Biomining is particularly good at dealing with metals trapped in sulfur-rich minerals.
- This method is still under development, but it holds promise for a cleaner future of metal extraction.

104. Panel to study scope of altering power lines in bustard habitat

News:

- The Supreme Court constituted an expert committee **to balance the conservation and protection of the endangered Great Indian Bustard bird population** with the country's international commitments to promote renewable sources of energy.

Prelims Takeaway
- Great Indian Bustard
- IUCN

Key Highlights

- The large-winged birds are on the brink of extinction, and one of the causes is the **frequent collision with high-powered power cables running**
  - adjacent to its core habitats in Gujarat and Rajasthan.
- The committee would explore alternatives to **balance sustainable development goals and conservation of the birds.**

Great Indian Bustard (GIB)

- The Great Indian Bustard (Ardeotis nigriceps) , the State bird of Rajasthan, is considered India's most critically endangered bird.
- It is considered the flagship grassland species, representing the health of the grassland ecology.
- Its population is confined mostly to Rajasthan and Gujarat. Small populations occur in Maharashtra, Karnataka and Andhra Pradesh.
- The bird is under constant threats due to:
  - collision/electrocution with power transmission lines
  - hunting (still prevalent in Pakistan)
  - habitat loss and alteration as a result of widespread agricultural expansion, etc.
- International Union for Conservation of Nature Red List (IUCN): **Critically Endangered**

105. Ministry of Environment tightens rules on bioplastics

News:

- The Environment Ministry has introduced rules that make it **harder for makers of disposable plastic ware to label such products as 'biodegradable**

Prelims Takeaway
- CPCB
- Microplastics

- Introducing a stipulation that they must not leave any microplastics behind.

Key Highlights

- Biodegradable plastic and compostable plastic are projected as the two broad kinds of technological fixes to India's burgeoning problem of plastic waste pollution.
- Biodegradable plastic involves plastic goods being treated before they are sold.
- Compostable plastics, on the other hand, do degrade but require industrial or large municipal waste management facilities to do so.

- A new set of amendments to **India's Plastic Waste Management (Amendment) Rules, 2024,** made public recently, defines biodegradable plastics as not only capable of "... degradation by biological processes in specific environments such as soil, landfill.
  - but also as materials that do not leave "any microplastics...".
- The caveat about **microplastics in the updated rules does not specify which chemical tests can be used** to establish the absence of microplastics
  - or to what extent microplastics must be reduced in a sample in order to consider them eliminated
- **Microplastics have been reported as a major source of pollution** affecting rivers and oceans.
- Several firms were left in the lurch as the Central Pollution Control Board (CPCB) refused to provide them with a 'provisional certificate' to license their products as biodegradable.
  - This is because the CPCB only considers biodegradable a plastic sample that has 90% degraded, and such a process takes at least two years.

106. Water crisis in Bengaluru linked to urbanisation

News:
- The Save Kodagu and Cauvery Campaign has said that one of the reasons for the water shortage in Bengaluru is the rampant and unchecked commercial land conversion and urbanisation of Kodagu

Prelims Takeaway
• NITI ayoge
• Water crisis

Key Highlights
Land conversion
- **Gram panchayats should not issue NOCs** for land conversion for commercial purposes.
- If there was a continuous growth of Bengaluru and the destruction of Kodagu's landscape, it would be a classic case of burning the candle at both ends.
- "The Cauvery is the lifeline not only of Bengaluru, but **also for the farmers of Mandya and the people of Mysuru,**
- If the population of Kodagu increases from its present six lakh to 10 lakh or more, owing to proliferation of layouts and colonies
  - In case there is a failure of rains in the district resulting in drought conditions and water shortage, then the government can invoke the National Disaster Act.
- The government can invoke the Act by which the borewells and water tanks of coffee growers across Kodagu can be seized
  - It will not be permitted to carry out any irrigation in the district which will result in coffee yield reducing drastically

Reasons for the Water Crisis in India
- **Rising water demand- A**ccording to NITI Aayog, India's water demand is increasing at a rapid rate. India's water demand will be twice the available supply by 2030.
  - Also, the rate of depletion of groundwater in India during 2041-2080 will be thrice the current rate.
- **Groundwater use for agriculture** – There is high groundwater usage in agriculture due to faulty cropping patterns.
  - For ex- Water-intensive paddy cultivation in the states of Punjab and Haryana.
- **Encroachment of Natural Water Bodies-** There has been destruction of lakes and small ponds to meet the infrastructure needs of burgeoning populations.
  - For ex- Encroachment of lakes in Bengaluru.
- **Climate Change-** Climate Change has led to erratic monsoon and reduced water levels in many rivers. This has induced water crisis in India.
  - Discharge of Pollutants- There has been contamination of groundwater resources by the discharge of industrial chemicals, sewers and improper mining activities.

107. Australia's carbon credit scheme

Prelims Takeaway

News:

- **Australia's carbon credit scheme** was undermined by damning new research which found a world-leading reforestation project had been an underperforming "catastrophe"

- Carbon credit
- Map based question

- Vast swathes of land across **Australia's desert Outback** have been earmarked for **native forest regeneration m**eant to offset emissions as new trees suck up carbon.

Key Highlights

- But researchers have found that across almost **80% of these plantations forest growth was either stagnant or that woodlands were shrinking.**
- Despite this, Australia had used these projects to bank millions of tonnes in questionable carbon credits, scientists said, which are used to supposedly offset polluting industries.
- Officials claim that since 2013, the native forest spreading across this land has sucked up more than 27 million tonnes of carbon.
- Each tonne of carbon sequestered by these forests is chalked up as a single carbon credit.
- These credits are then bought by mining companies, airlines, and other heavily polluting industries to offset their emissions.
- The regulator said it "only issues carbon credits where a project can demonstrate regenerating native forest".
- Climate policy has long been a fraught affair in Australia, set back by a decade of political brawling dubbed the "climate wars".
- Despite its growing vulnerability to climate-linked natural disasters, Australia remains one of the world's biggest exporters of gas and thermal coal.
- Australia has committed to cutting carbon emissions by 43% by 2030 from 2005 levels, on a path to reaching net-zero emissions by 2050.
- Australia's carbon dioxide emissions per person are among the highest in the world at 15.3 tonnes, surpassing U.S. levels, World Bank figures show.

108. Moyar valley and critically endangered Gyps vulture

News:

- **Moyar valley or Maayar** (invisible river) valley extends from Gudalur through the core area of Mudumalai Tiger Reserve.

Prelims Takeaway
- Mudumalai Tiger Reserve
- Moyar Valley

-
- This entire stretch of nearly 85 km is a wildlife haven and **important biome in the Nilgiri Biosphere Reserve**, sheltering several vital species like tiger and elephant and the critically endangered Gyps vulture.
- It is the only region in peninsular India where you have the biggest nesting colony of Gyps vultures in the wild.

Mudumalai: A vital wildlife corridor in India

- Mudumalai stretches through a critical area within the Nilgiri Biosphere Reserve.
- This region is home to endangered species like tigers, elephants, and Gyps vultures (the largest nesting colony in peninsular India).
- The Moyar Valley within Mudumalai provides a natural food source for scavengers like vultures.
- This is because prey animals here die from natural causes and lack harmful chemicals.

Key details about Mudumalai Tiger Reserve:

- Located in Tamil Nadu, at the meeting point of three states (Tamil Nadu, Karnataka, Kerala).
- Part of the Western Ghats mountain range.
- Shares borders with several protected areas, forming a crucial wildlife corridor.

109. Less than 150 Great Indian Bustards remaining in the wild

Prelims Takeaway

News:
- The Supreme Court last week said it will review its April 2021 order to bury underground all power lines in the habitat of the Great Indian Bustard (GIB), after the Centre found the order "practically impossible to implement" over long distances.

The Great Indian Bustard: A Bird on the Brink
- The Great Indian Bustard (GIB), the largest of India's four bustard species, is facing a critical fight for survival.

Habitat and Decline:
- Once widespread across the Indian subcontinent, their habitat has shrunk to a mere 10%.
- These grassland birds, crucial indicators of healthy grasslands, are now critically endangered with just 50-249 individuals remaining.

Main Threat: Power Lines
- The biggest threat to GIBs are overhead power lines.
- Their poor frontal vision and weight make it difficult to dodge these lines, leading to collisions and fatalities.
- Research suggests 18 GIBs die from this cause annually in Rajasthan alone.
- The recent boom in renewable energy infrastructure in their core habitat (Kutch and Thar desert) has exacerbated the problem.

Other Threats:
- Free-ranging dogs
- Pesticide use in farmlands
- Loss of grassland (especially nesting sites)
- Decreased support from local communities

Conservation Efforts:
- **Species Recovery Programme:** A government initiative to create a captive breeding population for future reintroduction.
- **Bird Diverters:** Reflectors installed on power lines to make them visible to GIBs and prevent collisions.

Supreme Court Intervention:
- The Supreme Court has mandated burying power lines in core GIB habitat and set up committees to oversee implementation.
- The Centre argues against burying all lines due to technical and economic challenges.
- In March 2024, the Court established a new committee to explore further conservation measures.
- The future of the Great Indian Bustard hangs in the balance.
- Balancing development needs with critical species protection remains a challenge.

110. CPCB report shows 80 pc environmental funds remain unutilised

News:
- The Central Pollution Control Board (CPCB) has spent only 20 percent of the **environment protection charge and environmental compensation** collected so far for mitigating air pollution in Delhi-NCR and protecting the environment.

- The CPCB receives compensation broadly under two heads - environment protection charge (EPC) and environmental compensation (EC).

The CPCB
- it is a government agency established in **1974 to deal with water and air pollution in India.**
- It advises the government on these issues and sets standards for water and air quality.
- It also creates guidelines for handling waste and pollution control equipment.

The CPCB's main tasks include:
- Keeping rivers and wells clean by preventing water pollution.
- Making the air cleaner by reducing air pollution.

The CPCB sets standards for:

- o Water quality
- o Air quality
- o Industrial waste emissions
- o Medical waste disposal
- o Vehicle emissions
- o Fuel quality
- o Noise limits for engines and generators
- The CPCB also creates **minimal pollution standards for different industries, which states must follow.**

SECURITY

111. DefConnect 2024

News:

- Innovations for **Defence Excellence-Defence Innovation Organisation (iDEX-DIO) under Ministry of Defence**, is organising DefConnect 2024 at Manekshaw Centre, New Delhi

Innovations for Defence Excellence-Defence Innovation Organisation:

- It is the flagship scheme of the Ministry of Defence, Govt of India launched in 2018.

Objective:

- The objective of the scheme is to cultivate an innovation ecosystem in the Defence and Aerospace sector by collaborating with startups, innovators, MSMEs, incubators, and academia.
- **Funding**: It will be funded and managed by a 'Defence Innovation Organization (DIO)' which has been formed as a 'not for profit' company as per the Companies Act 2013 for this purpose, by the two founder memberse. Defence Public Sector Undertakings (DPSUs) - HAL & BEL.
- It **functions as the executive arm of DIO**, carrying out all the required activities while DIO will provide high level policy guidance to iDEX.
- It offers grants and support for R&D with significant potential for future adoption in Indian defence and aerospace.

Prelims Takeaway
- Defence Innovation Organisation
- Public Sector Undertakings

112. Govt. extends AFSPA in parts of Nagaland, Arunachal Pradesh

News:

- The Union Ministry of Home Affairs **(MHA) extended the Armed Forces (Special Powers) Act (AFSPA)** in parts of Nagaland and Arunachal Pradesh for another six months.

Prelims Takeaway
- AFSPA
- Map based questions

Key Highlights

- As per the notification, the AFSPA has been extended in the whole of eight districts and 21 police stations in five other districts of Nagaland.
- In Arunachal Pradesh, it has been extended in three districts and areas falling under the jurisdiction of three police stations in Namsai district.

Origin of AFSPA

- In the wake of the partition riots, four **ordinances were promulgated in 1947.**
- These were replaced by a common legislation, the Armed Forces (Special Powers) Act, 1948.
- This was meant to be in force for one year, but was repealed only in 1957.
- But subsequently extended by an act of parliament -**the Armed Forces (Assam and Manipur) Special Powers Act, 1958**

Which parts of the country come under AFSPA?

- Under this law, an area can be declared a **'disturbed area',** bringing into play the protection it offers to the armed forces for use of force in the notified area.

- The notification is extended periodically, mostly for six months at a time.
- As of today, the **whole of Assam and Nagaland, Manipur, with the exception of the Imphal municipal area, few districts of Arunachal Pradesh** are notified as 'disturbed areas'.
- The AFSPA was revoked in Tripura and Meghalaya

What does the Act say?
- The Act empowers the Governor of any State, or the Administrator of a Union Territory, or the Central Government to notify parts of or the whole of a State or a Union Territory as a 'disturbed area
  - If they consider that the condition in such areas is so dangerous or disturbed that the use of the armed forces is necessary in aid of civil power.
- In such a notified area, any officer of the armed forces may fire upon or use force, even to the point of causing death, against any person for the maintenance of public order.
- The Act allows arrest and search of any premises without a warrant in a notified area, and the recovery of any confined person, or any arms and ammunition stored unlawfully.
- No person can be prosecuted or subjected to any legal proceedings for action taken under the Act, without the Central Government's previous sanction.
- The exercise of these extraordinary powers by armed forces has often led to allegations of fake encounters and other human rights violations by security forces in disturbed areas

Naga People's Movement of Human Rights v. Union of India
- In this judgment Supreme Court upheld the constitutionality of the act but also held that
  - declaration should be for limited duration and must be a periodic reviewed after 6 months
  - While exercising the powers conferred upon him by AFSPA, the authorized officer should use minimal force necessary for effective action

Jeevan Reddy committee
- In 2005, a Government-appointed five-member committee headed by retired Supreme Court judge, B. P. Jeevan Reddy, recommended that **AFSPA be repealed.**
- It suggested that the **Unlawful Activities (Prevention) Act could be suitably amended to deal with terrorism.**

Way forward
- To minimize disruption and protect human rights, **AFSPA should only be used in specific districts with proven unrest, not entire states.**
- Additionally, the government and security forces must follow the regulations established by the Supreme Court, the Jeevan Reddy Commission, and the National Human Rights Commission.

113. Grey zone warfare

News:
- On the last day of the 2024 Raisina Dialogue, India's Chief of Defence Staff said that **"grey zone warfare" is the latest in informal warfare.**

Prelims Takeaway
• Cold war
• WW II

gray zone warfare
- Grey zone warfare generally means a **middle, unclear space that exists between direct conflict and peace in international relations.**
- Multitude of activities fall into this zone — from nefarious economic activities, influence operations, and cyberattacks to mercenary operations, assassinations, and disinformation campaigns.
- Activities in the grey zone have **always been a feature of great-power competition.**
- Proxy wars, destabilizing insurgencies, legal warfare (lawfare), and information warfare—by adversaries and allies alike—have been a feature of this conflict.
- Experts claim that such methods are often employed by parties who have not had **access to massive resources or power, traditionally.**

- Therefore, such tactics can help gain an advantage over a more technically well-equipped adversary that is more used to conventional warfare.

The beginning
- Experts believe the Cold War era, which began after the end of the Second World War in 1945, **led to conditions that favoured grey zone warfare.**
- Amid the US-USSR rivalry for ideological and economic dominance, the knowledge that both parties were armed with nuclear weapons meant direct conflicts had to be restrained.
- In today's nuclear age, t**he price of traditional wars has become too high, and the danger of things getting worse is very serious.**
- Because of this, **countries are trying to achieve their goals by being aggressive in secret or by hiding.**

What grey zone warfare looks like?
- Experts from the US and Europe have characterized certain Russian and Chinese actions of late as examples of gray zone warfare.
- It includes the Chinese military's presence in the South China Sea.
- Th**e Philippines is one of the countries** which has challenged China's claims, extending over around 80 per cent of the region.
- In December 2023, it termed the presence of more than 135 Chinese maritime militia vessels near a disputed reef as illegal.
- I**t accused China of firing water cannons** at its boats and ramming into others, while the Chinese coast guard blamed the Philippines for hitting Chinese boats.
- A recent Reuters report mentioned that Taiwan has been expressing concerns for the past four years about increased military actions by China.
- This includes Chinese fighter jets flying over the strait regularly.
- It is part of China's strategy to pressure Taiwan with activities that fall just short of starting a full-scale conflict.
- Analysts claim that the **US has also engaged in similar tactics.**
- These include its economic sanctions against China and imposition of duties on Chinese imports to the US, along with maritime reconnaissance.

114. INS JATAYU

News:
- Indian Navy will **commission Naval Detachment Minicoy as INS Jatayu**
- The event marks an important milestone in the Navy's resolve to incrementally augment security infrastructure at the **strategically important Lakshadweep Islands.**

Prelims Takeaway
• Lakshadweep
• Kavaratti

INS Jatayu:
- It is the **second Naval base in Lakshadweep** after INS Dweeprakshak in Kavaratti.
- With the commissioning of INS Jatayu, the Indian Navy will strengthen its foothold in the Lakshadweep islands and along with extending operational surveillance, reach and sustenance.
- It will usher in a new era of capacity building and comprehensive development of the island territories.
- The event marks an important milestone in the Navy's resolve to incrementally augment security infrastructure at the strategically important Lakshadweep Islands.

115. Sea Defenders-2024

News:

Prelims Takeaway
• The Indian Coast Guard
• Sea Defenders

- A United States Coast Guard (USCG) ship, **the Bertholf, reached Port Blair for a joint exercise with the Indian Coast Guard (ICG)**, marking a significant step in bolstering bilateral cooperation between the two forces.

Sea Defenders-2024
- It is a collaborative training mission between the **Indian and United States Coast Guards.**
- Held off the coast of Port Blair, India, **the exercise simulates various maritime threats.**
- These include **pirate attacks, drone strikes on commercial ships, search and rescue at sea, fighting large fires**, responding to ocean pollution, and stopping drug smuggling.
- The event also practices medical evacuations by sea to improve emergency response capabilities.

116. Sela Tunnel connecting Assam to Arunachal

News:
- In a long-awaited boost to the Indian armed forces in the Eastern sector, **Prime Minister inaugurated the strategically-important Sela tunnel in Arunachal Pradesh.**

Prelims Takeaway
• Balipara-Chariduar-Tawang road
• Nechiphu tunnel

Key Highlights
- it is constructed on **the road connecting Tezpur in Assam to Tawang in Arunachal**, which was overrun by Chinese soldiers in the 1962 War.
- The foundation stone for the Sela — the world's longest bi-lane tunnel at an altitude above 13,000 ft — was laid in Arunachal's West Kameng district.
- The Sela Tunnel, along with the **Nechiphu tunnel on the 317-km long Balipara-Chariduar-Tawang (BCT) road** which leads to West Kameng and Tawang
  o will ensure that both defence and private vehicles will have all-year mobility.
- At present, the Army and civilians use the Balipara-Chariduar Road (Assam) to reach Tawang, since the Sela pass is shut down in winters due to heavy snow.
- both tunnels are designed in such a way that all Army equipment, including large artillery pieces
  o like the Bofors guns, tanks like the T-90 and Vajra howitzers, can easily travel through it all-year round, while also cutting down on time.
- This tunnel will also ensure that the Chinese are not able to monitor traffic movement in the area.
- The Sela Pass, at 13,700 feet, is currently visible to the Chinese and **hence can observe all kinds of military movement.**
- While the Sela project has now been completed, the other big project that has been initiated is the Arunachal Frontier Highway, one of the country's biggest and toughest projects.
- A 2,000-km long road project that follows the McMahon Line, the Arunachal Frontier Highway will begin from Mago in Arunachal, adjacent to Bhutan
- and pass through Tawang, Upper Subansiri, Tuting, Mechuka, Upper Siang, Dibang Valley, Desali, Chaglagam, Kibithoo and Dong, before ending at Vijayanagar near the Myanmar border.

117. Samudrayaan

News:
- Samudrayaan is a manned submersible mission that will **allow scientists to observe unexplored deep-sea areas directly**
- The National Institute of Ocean Technology **(NIOT) has completed a key test** for India's first manned submersible mission called Samudrayaan

Prelims Takeaway
• Samudrayaan
• National Institute of Ocean Technology

Key Highlights
- Samudrayaan is a **manned submersible mission th**at will allow scientists to observe unexplored deep-sea areas directly.
- The Deep Ocean Mission aims to **unlock mysteries in the heart of the deeps**
  o and if successful, will put India in an elite club of nations, including the US, Russia, Japan, France and China in developing technology and vehicles to carry out undersea activities.
- the ministry called it a "self-propelled manned submersible to carry three human beings to a water depth of 6,000 metres in the ocean

o with a suite of scientific sensors and tools for deep ocean exploration".
- "Manned submersible facilitates direct observation by the human in deep ocean in **exploring mineral resources rich in nickel, cobalt, rare earths, manganese** etc.
  o and collection of samples, which can be used for analysis," the ministry said in its mission document.
- The Centre approved the Deep Ocean Mission at a total budget of ₹4,077 crore for five years.
- The estimated cost for the first phase for the three years (2021-24) is ₹2,823.4 crore, government data show.

118. INS TRIKAND IN CUTLASS EXPRESS 23- PIB

News:
- **INS Trikand participated in Sea Phase-I of the International Maritime Exercise**/Cutlass Express 2023 (IMX/CE-23) held in the Gulf from 05 to 09 March 2023.
- During the period, the ship exercised with naval units of Bahrain, Japan, Oman, Saudi Arabia, UAE, UK and USA

Prelims Takeaway
• INS Trikand
• Map based question

Objective:
- aim to enhance maritime security, keeping shipping lanes open and ensuring safety of navigation.
- INS Trikand is part of the Indian Navy's Western Fleet and operates under the Western Naval Command headquartered at Mumbai.
- She is a modern warship with advanced technologies to make her stealthy, fast and formidable.
- With long reach and a state-of-the-art combat suite, the ship is designed to undertake a wide spectrum of naval operations

119. 'India was the top arms importer in 2019-2023'

News:
- According to a recent report by SIPRI, a Swedish think tank, between 2019-23, India has been among the top arms importers of the world with 4.7% increase in arms imports compared to 2014-18.
- At the same time, arms imports by European countries increased by 94% due to the Russia-Ukraine war.

Prelims Takeaway
• Stockholm International Peace Research Institute (SIPRI)
• Map based Question

Key Highlights of the Report
- Russia is a major arms supplier to India (36% arms imports).
  o It is decreased from its normal trends of 50% arms imports of India.
- 9 out of the 10 biggest arms importers are from Asia and Oceania or the Middle East.
- Ukraine became the fourth biggest arms importer globally after it received transfers of major arms from over 30 states in 2022-23.
- Imports of Pakistan, the fifth largest arms importer in 2019–23, went up by 43%, with China supplying as much as 82% of all its arms imports.

120. 'Bharat Shakti' exercise

News:
- The Army's Pokhran range in Rajasthan bore witness to the **live tri-services fire and manoeuvre exercise 'Bharat Shakti'.**

Prelims Takeaway
• Akash missile system
• MBT Arjun

Key Highlights
- A synergised demonstration of indigenous defence capabilities, the exercise lasted for nearly 50 minutes with the Prime Minister and delegates of at least 30 countries in attendance.
- Besides an array on indigenous weapons systems and platforms
  o the exercise aimed at showcasing the integration of the three forces in areas including communications, training, interoperability and logistics.

T-90 tanks

- **The T-90 Bhishma is a third-generation** Indian variant of the Russian T90S tank.
- These are now manufactured in India under licence from the Russians.

Dhanush artillery guns
- Dhanush is a 155 mm, 45-calibre towed howitzer manufactured by state-owned Advanced Weapons and Equipment India at the Gun Carriage Factory Jabalpur.
- It has a range of 36 km and is a modern update of the 155 mm, 39-calibre Bofors FH 77 gun.

MBT Arjun
- Developed by DRDO, the Main Battle Tank (MBT) Arjun is equipped with the indigenous Fin Stabilised Armour Piercing Discarding Sabot (FSAPDS) ammunition and 120 mm calibre rifled gun.

Akash missile system
- The Akash is a mid-range surface-to-air missile system developed by DRDO under the Integrated Guided Missile Development Programme (IGMDP).
- The Army and Air Force both operate this missile system which has built-in Electronic Counter-Counter Measures (ECCM) features and can simultaneously engage multiple targets in autonomous mode.

SCIENCE & TECHNOLOGY

121. Obesity on the rise, high levels of undernutrition persist in India: What a new study says- Indian Express

News:

Prelims Takeaway
- Obesity
- Malnutrition

- **India has seen a steady increase in obesity levels,** not only in adults but children too over the last 32 years.
- At the same time, the prevalence of undernutrition has also remained high in the country.
- As a result, India has become one of the countries with a high "**double burden,**" according to a new **Lancet study**

Key Highlights of the Study Published by the Lancet:

Obesity in India:
- Obesity in women has spiked in the past three decades — **it increased from 1.2% in 1990 to 9.8% in 2022,** according to the study.
- There were 44 million women living with obesity in 2022.
- Meanwhile, obesity in men increased by 4.9 percentage points during the same period, with 26 million men living with obesity in 2022.
- Notably, there has also been a significant increase in childhood obesity.
- There has been a spike of 3 percentage points in girls and 3.7 percentage points in boys over the 32 years that the study examined.
- **In 2022, 3.1% of girls and 3.9%** of boys were obese.

Underweight in India:
- Despite a significant decline, the prevalence of underweight and thinness continues to be high across genders and age groups.
- The study found that 13.7% of women and 12.5% of men were underweight.
- Thinness — a measure of being underweight in children — in Indian girls was found to be the highest in the world, with a prevalence of 20.3%.
- And, it was the second highest in Indian boys, with a prevalence of 21.7%.

Why are Women more Obese than Men?
- Women are more prone to putting on weight because most of them do not have access to or time for physical activities such as walks or gyms.
- They are also likely to put the nutrition of the family above theirs.
- If central obesity were to be considered, **obesity in women would be as high as 40% to 50% in many parts of the country.**

- A better predictor of future risk of diseases like diabetes and hypertension, central obesity is an excess accumulation of fat in the abdominal area.

122. A vaccine that prevents six cancer

News:
- January was observed as Cervical Cancer Awareness Month. Additionally, every year, March 4 is observed as International HPV Awareness Day.

Human Papillomavirus (HPV)
- HPV is a group of more than 200 related viruses, of which more than 40 are spread through direct sexual contact.
- Among these, two HPV types cause genital warts, and about a dozen HPV types can cause certain types of cancer. More than 95% of cervical cancer is caused by the HPV virus.

Transmission:
- It is the most common **sexually transmitted infection (STI) globally.**
- It also spreads through **skin-to-skin contact**.
- Once infected, most people do not develop any symptoms, thereby not being aware that they have the virus.
- Getting **vaccinated against HPV helps prevent cancer in men and women.**

HPV Vaccination:
- It prevents HPV infections that can progress to cancer or genital warts.
- The HPV vaccination is more efficacious if given between the age group of 9-26 years.
- Once a person gets HPV, the vaccine may not be as effective.
- The HPV vaccine isn't given during pregnancy.

Prelims Takeaway
• HPV
• Sexually transmitted infection

123. Google reinstates Indian apps 'in spirit of cooperation'

News:
- Google is **reinstating dozens of apps that were delisted by the company** on March 1 for resisting the firm's platform fees on in-app payments

Key Highlights
- they temporarily reinstating the apps of the developers with appeals pending in the Supreme Court
- "Google maintains its right to implement and enforce its business model, as established in various courts.

Over-The-Top (OTT) Platforms
- OTT platforms are audio and video hosting and streaming services which started out as content hosting platforms
  - but soon branched out into the production and release of short movies, feature films, documentaries and web-series themselves.
- These platforms offer a range of content and use artificial intelligence to suggest to users the content they are likely to view based on their past viewership on the platform.

Services:
- Most OTT platforms generally offer some content for free and charge a monthly subscription fee for premium content which is generally unavailable elsewhere.
- In 2022, the Central Government notified the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021 to regulate OTT platforms.**

Prelims Takeaway
• OTT
• Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021

124. Claude 3

News:
- Artificial Intelligence start-up Anthropic announced its latest family of **AI models called Claude 3**

Prelims Takeaway
• Claude 3 Haiku
• AI

Claude: Powerful AI Language Models
- Claude is a family of advanced AI models from Anthropic, **capable of understanding and responding to text, voice, and documents.**
- These models excel at generating **relevant and context-aware responses, surpassing many competitors in speed and quality.**

Three models for different needs:
- **Claude 3 Haiku**: This is the most lightweight and responsive option, ideal for scenarios where instant answers are crucial.
- **Claude 3 Sonnet:** Striking a balance between power and affordability, Sonnet offers strong capabilities for various use cases and is currently accessible through the free Claude.ai chatbot.
- **Claude 3 Opus**: The most powerful member of the family, Opus boasts superior performance and can handle complex tasks.
- However, it requires a paid subscription on Anthropic's website.
- **Enhanced capabilities:** All three models now feature a 2,000,000-token window, potentially leading to improved performance, accuracy, and the ability to handle more information in user prompts.

125. NASA satellite captures 'odd holes' in clouds

News:
- NASA's Terra satellite, **ice crystals in the hole's center form wispy streaks of precipitation that do not hit the ground.**

Prelims Takeaway
- Altocumulus clouds
- Cavum clouds

Cavum clouds:
- These clouds are also known as **"hole-punch clouds** or fallstreak holes."

Formation of cloud
- These are formed when **airplanes pass through layers of altocumulus clouds**, which are mid-level clouds containing supercooled water droplets (water below freezing temperature but still in liquid form).
- As the aircraft moves through, a **process known as adiabatic expansion can cause the water droplets to freeze into ice crystals.**
- These ice crystals eventually become too heavy and fall out of the cloud layer, **creating a hole in the clouds.**
- They are formed when planes pass through at a relatively steep angle.

Altocumulus clouds
- These are typically **found in groups or heaps clumped together.**
- They're found in the **middle layer of the troposphere**, lower than cirrocumulus and higher than their cumulus and stratocumulus counterparts.
- The term mackerel sky is also common to altocumulus (and cirrocumulus) clouds that display a pattern resembling fish scales.

126. WHO highlights growing HIV drug resistance

News:
- **Resistance to the antiretroviral drug dolutegravir (DTG) is increasing among HIV patients**, a new report by the World Health Organization (WHO) highlighted.

Prelims Takeaway
- Sexually transmitted infection
- HIV

Dolutegravir (DTG):
- It is an antiviral drug used with other medications to treat human immunodeficiency virus (HIV) infection, the virus that can cause the acquired immunodeficiency syndrome (AIDS).
- Dolutegravir is in a class of medications called HIV integrase inhibitors.
- It works by decreasing the amount of HIV in your blood and increasing the number of immune cells.
- Although **dolutegravir does not cure HIV**, using it along with other medications may decrease your **chance of developing AIDS and HIV-related illnesses such as serious infections or cancer.**
- WHO has recommended the use of dolutegravir as the preferred first- and second-line HIV treatment for all population groups.
- It is more effective, easier to take and has fewer side effects than other drugs currently in use.

- Common side effects of dolutegravir may include:
  o headache;
  o tiredness; or
  o sleep problems (insomnia).
  o Some side effects can be serious. These include severe skin rashes and allergic reactions, liver problems, and drug interactions.

HIV/AIDS
- AIDS is a chronic, **potentially life-threatening condition caused by HIV.**
- HIV attacks the body's immune system, making a person more vulnerable to other infections and diseases.
- If HIV is not treated, it can lead to AIDS.

Transmission:
- It is a **sexually transmitted infection (STI), can also be spread by contact with infected blood,** and from illicit injection drug use or by sharing needles.
- It can also be spread from mother to child during pregnancy, childbirth, or breastfeeding.

127. Yaounde Declaration

News:
- Health leaders from **African nations most affected by malaria joined forces in the Yaoundé Declaration,** vowing to completely eliminate malaria deaths.

Prelims Takeaway
• Yaoundé Declaration
• WHO

Key Highlights
- This agreement, signed during a conference in Yaoundé co-hosted by the WHO and Cameroon**, involves eleven African countries carrying the heaviest burden of malaria globally.**
- These countries pledged stronger leadership, increased national funding **for anti-malaria programs, investment in data technologies, and implementing the latest malaria control methods.**
- Additionally, they committed to boosting healthcare infrastructure, personnel, and program execution at national and local levels.
- Collaboration across different sectors and establishing partnerships for funding, research, and innovation were also emphasized.
- By signing the declaration, these nations solidify their dedication to significantly reducing malaria deaths and holding themselves accountable for achieving the set goals.

128. Govt. issues marketing code for pharmaceutical firms

News:
- The Department of Pharmaceuticals issued **the Uniform Code for Pharmaceutical Marketing Practices (UCPMP) 2024**

Prelims Takeaway
• UCPMP
• Ethics Committee for Pharmaceutical Marketing Practices

Key Highlights
- It specifying the rules of the use of the words "safe'' and "new'' for drugs, and stated that medical representatives must not employ any inducement or subterfuge
  o to gain an interview, and that they must not pay, under any guise, for access to a healthcare professional.
- Engagement of the pharmaceutical industry with healthcare professionals for Continuing Medical Education (CME) should only be allowed
  o through a well-defined, transparent, and verifiable set of guidelines, and conduct of such events in foreign locations is prohibited by the uniform code.
- **Companies or their representatives should not pay cash or monetary grants to any healthcare professional** or their family members (both immediate and extended) under any pretext.
- The latest UCPMP also notes that paid travel, hotel stays, etc., should not be extended to healthcare professionals or their family members by pharmaceutical companies

- **The UCPMP is to be circulated for strict compliance,** and all associations have been requested to constitute an Ethics Committee for Pharmaceutical Marketing Practices
  - set up a dedicated UCPMP portal on their website, and take further necessary steps for the code's implementation.
  - All Indian pharmaceutical associations are to upload the UCPMP on their website along with the detailed procedure for lodging of complaints, which will be linked to the UCPMP portal of the Department of Pharmaceuticals.

129. Govt. blocks 18 OTT platforms for streaming obscene content

News:

Prelims Takeaway
• Information Technology Amendment Rules, 2023
• The Indian Penal Code

- **The Information & Broadcasting Ministry has blocked 18 OTT platforms** for streaming obscene and vulgar content.
- Nineteen websites, 10 apps, and 57 social media handles associated with these platforms have also been blocked.

Key Highlights

- The action has been taken in coordination with various intermediaries **for violations of the Information Technology Act, the Indian Penal Code, and the Indecent Representation of Women (Prohibition) Act.**
- While seven of the blocked apps were hosted on Google Play Store, three were on Apple App Store, the Ministry said.
- Union Minister for Information & Broadcasting has repeatedly emphasised the responsibility of the platforms to not propagate obscenity, vulgarity, and abuse under the guise of 'creative expression'.
- The Ministry said a significant portion of the content was found to be obscene and portrayed women in a demeaning manner.

Information Technology Amendment Rules, 2023

- No platform can allow harmful **unapproved online games and their advertisements.**
- They should **not share false information about the Indian government,** as confirmed by a fact-checking unit.
- Platforms providing online gaming will have to **register with a Self-Regulatory Body** (SRB) that will determine whether or not the game is "permissible.
- if any piece of information is marked as fake by the upcoming fact check unit,
  - intermediaries will be required to take it down, failing which they would risk losing their safe harbor, which protects them from litigation against third-party content.

130. Rhodamine B in street food

News:

Prelims Takeaway
• Food Safety and Standards Act, 2006 (FSS Act)
• Saffron

- **Tamil Nadu banned the sale of cotton candy or candy floss** after analysis confirmed **the presence of Rhodamine-B, a**n industrial dye, in samples lifted from stalls in Chennai.

Key Highlights

- **Rhodamine-B is a textile dye,** and its use in food has a huge impact on health.
- Rhodamine-B is a fluorescent dye **used in cosmetics, textile and leather industries.**
- It gives **brilliant pinks, greens and blues.**
- Unfortunately, it is used as a food coloring agent not only in cotton candy but also in the preparation of sweets, various manchurian items and pakodas and in the preparation of sauces for Chinese food.
- **Long-term consumption can cause allergie**s that can manifest in the form of irritation of the lip, tongue as well as eyes and also cause upper respiratory allergies
- Studies have shown that Rhodamine-B can cause cell death.
- It is not a food colour but **is toxic to the human body and is a carcinogen.**

- **FSSAI has approved certain food colours** and flavors as safe for consumption.
- These include: Caramel, Riboflavin (Lactoflavin), Saffron, Annatto, Curcumin (Turmeric), Carotene and carotenoids etc

Food Safety and Standards Authority of India (FSSAI)

- It is an **autonomous statutory body established under the Food Safety and Standards Act, 2006 (FSS Act).**
- **The Ministry of Health & Family Welfare**, Government of India is the administrative Ministry of FSSAI.

Function:

- Framing of regulations to lay down the standards and guidelines of food safety.
- Granting FSSAI food safety license and certification for food businesses.
- Laying down procedure and guidelines for laboratories in food businesses.

131. FMD disease

News:

- The **foot-and-mouth disease (FMD) has affected around 60% milch cattle** in Pilibhit district .
- Besides, stray cattle are also at the risk of being infected ..with the highly contagious disease.

Prelims Takeaway
• Foot-and-mouth disease

Highly Contagious Disease Threatens Livestock

- Foot-and-mouth disease (FMD) is a serious and contagious viral illness that mainly strikes farm animals like cows, sheep, pigs, and goats.
- It spreads easily and can have a devastating impact on livestock production and international trade of animals and animal products.

Important Points to Remember:

- FMD only affects cloven-hoofed animals, not pets like horses, dogs, or cats.
- There are different strains of the virus, and immunity to one doesn't protect against others.
- The disease causes fever, blisters in the mouth and on hooves, and often leads to weakness and production losses, even in recovered animals.
- Young animals are more likely to die from FMD, while adults usually survive.
- FMD was the first disease recognized with official status by the World Organisation for Animal Health (WOAH).
- , heavily influenced by how they perceive light through their photoreceptors.

132. ETHANOL 100 fuel

News:

- Union Minister for Petroleum & Natural Gas and Housing and Urban Affairs, launched 'ETHANOL 100, a revolutionary automotive fuel at IndianOil Retail Outlet

Prelims Takeaway
• Ethanol
• Biofuel

Introducing ETHANOL 100: A Biofuel for a Greener Future

- ETHANOL 100 is a groundbreaking fuel made entirely from renewable sources like corn or sugarcane.

This biofuel aims to revolutionize the transportation industry by:

- **Reducing Reliance on Fossil Fuel**s: ETHANOL 100 offers a sustainable alternative to gasoline, helping us move away from dependence on limited fossil fuel reserves.
- **Promoting Environmental Sustainability**: Compared to gasoline, ETHANOL 100 produces fewer greenhouse gasses, contributing to a cleaner environment.
- **Aligning with National Goals:** This initiative supports India's vision of achieving 20% ethanol blending in gasoline (E20) by 2025-26, reducing reliance on imported oil and strengthening the agricultural sector.

A Fuel for the Future

- **ETHANOL 100 reflects a commitment** to sustainable technologies and reducing carbon emissions (decarbonization).
- Its versatility is another advantage. It can be used in various vehicles, including flex-fuel vehicles (FFVs) designed to run on gasoline, ethanol, or a mix of both.
- This flexibility, coupled with the development of proper infrastructure, **positions ETHANOL 100 as a promising mainstream fuel option for the future.**

133. SAKHI to assist Gaganyaan crew

News:

Prelims Takeaway
• ISRO
• SAKHI

- The Vikram Sarabhai Space Centre **(VSSC), the Indian Space Research Organisation (ISRO) facility at Thumba in Thiruvananthapuram**, has developed a multi-purpose app
- It will help astronauts on the Gaganyaan space flight mission carry out a range of tasks such as looking up vital technical information or communicating with one another.

Key Highlights

- The **Space-borne Assistant and Knowledge Hub for Crew Interaction** (SAKHI) will, among other things, monitor the health of the astronauts, help them stay connected with Earth and even alert them about their dietary schedules.
- The space facility has successfully tested an **engineering model of the custom-built, hand-held smart device featuring SAKHI.**
- The development of a flight model is in progress.
- The VSSC describes the application as an indispensable assistant to the crew.
- SAKHI will ensure that they have all the required data at their fingertips
- The ISRO is hoping to launch the Gaganyaan mission in 2025.

134. Vaccine for dengue

News:

Prelims Takeaway
• Dengue
• Kyasanur Forest Disease (KFD).

- Vaccine for dengue could be available commercially as early as mid-2026.
- Indian Immunologicals Limited has finished the first phase of clinical trials to determine the safety of the vaccine,

Key Highlights

- IIL is a wholly owned subsidiary of the National Dairy Development Board, established in 1982.
- "The company is also developing a vaccine for the Zika virus and for the Kyasanur Forest Disease (KFD).
- The virus, first identified in 1957 in Karnataka's forests, is reported to have infected 400 to 500 people annually since then.
- Transmission in humans occurs through an infected tick's bites or due to contact with an infected animal, especially a sick or dead monkey. T
- The disease is as yet limited to Karnataka and its border areas.

Dengue

- Dengue is a mosquito-borne tropical disease caused by the dengue virus (Genus Flavivirus)
- transmitted by several species of female mosquito within the genus Aedes, principally **Aedes aegypti.**
- This mosquito also transmits **chikungunya, yellow fever and Zika infection.**
- There are 4 distinct, but closely related, serotypes (separate groups within a species of microorganisms that all share a similar characteristic) of the virus that cause dengue (DEN-1, DEN-2, DEN-3 and DEN-4).

135. Nvidia's Project GR00T

Prelims Takeaway
• Project GR00T

News:

	• AI

- AI chip leader Nvidia announced **Project GR00T or Generalist Robot 00 Technology, which promises to revolutionise the evolution of humanoid robots.**
- The project aims to empower humanoid robots with human-like understanding and movement using Artificial Intelligence (AI).

Project GR00T (Generalist Robot 00 Technology)

- It is an AI system designed to be the brain of humanoid robots.
- It uses a combination of techniques, including understanding natural language and imitating human actions, to help these robots learn and interact with the real world.
- The goal is to give them human-like abilities through artificial intelligence.
- GR00T robots learn in two ways: by watching and mimicking human actions (like a student copying a teacher)
  o by using a special program called NVIDIA Isaac Lab to figure out the best way to do things on their own.

136. NIXI and MeitY to unveil BhashaNet portal

News:

- **National Internet Exchange of India (NIXI)** is proud to announce the launch of the BhashaNet portal for the **upcoming Universal Acceptance (UA) Day**

Prelims Takeaway
- National Internet Exchange of India

NIXI: Keeping Your Indian Internet Speedy and Affordable

- Founded in 2003, NIXI is a non-profit organization that plays a key role in India's internet infrastructure.
- They help keep Indian internet traffic flowing smoothly within the country, instead of taking detours overseas.
- This translates to faster internet (lower latency) and cheaper costs for internet service providers (ISPs) since they don't have to pay for as much international bandwidth.
- NIXI also plays a part in making the internet more accessible in India.
- Additionally, they operate the Indian Registry for Internet Names and Numbers (IRINN), which helps connect different internet networks within the country.

Universal Acceptance Day: Making the Internet Inclusive

- This section talks about a separate initiative, Universal Acceptance (UA) Day.
- Held annually, it's a global effort to raise awareness about ensuring all languages and scripts can be used seamlessly on the internet.
- This means everyone can have email addresses and website domain names that reflect their language and identity, promoting a more inclusive online experience.

137. Cosmic cannibalism

News:

- The solar system housing Earth and its fellow planet has shown remarkable stability throughout its 4.5 billion-year

Prelims Takeaway
- Twin stars

Stars Gone Wild: Devouring Planets in Their Prime

- Scientists studying twin stars, thought to be identical, **found a surprising number with lopsided chemical makeup.**
- This suggests one of the stars may have gobbled up planets or planetary building blocks!
- Normally, twin stars share the same chemical fingerprint because they form from the same cosmic dust cloud.
- But in roughly 8% of 91 pairs examined, one star showed higher levels of elements like iron, nickel, and titanium - hints of a devoured rocky world.
- These feasting stars were surprisingly young and healthy, not nearing the end of their lives like our future red giant Sun.

- The culprit behind this "cosmic cannibalism" could be a gravitational nudge from a larger planet or a passing star, throwing a hapless planet into its hungry star's path.
- This discovery suggests planetary systems are more chaotic than previously thought, with planets potentially getting tossed out or swallowed whole.
- With more homeless planets out there than expected, the hunt for these cosmic refugees might become a new frontier in astronomy!

138. Centre's smart meter plan

News:

- **Kerala's move towards an alternate model fo**r the rollout of smart electricity meters, effectively jettisoning the Centre's Rs 3 lakh crore smart meters project

Prelims Takeaway
• Smart Meter National Programme
• Electricity grid

- It comes as a spanner in the works for the Union Government scheme that aims to **replace 250 million conventional meters** with smart meters across all households by March 2025

Smart Meters: A Power Upgrade for India

- a meter that not only tracks your electricity use but also keeps an eye on voltage levels and sends updates to the power company.
- The Indian government is pushing a big initiative to replace traditional meters with these high-tech devices.
- This **"Smart Meter National Programme"** (SMNP) aims to install 250 million smart meters across the country.

The benefit

- For consumers, smart meters offer a window into their electricity usage, allowing them to track consumption and potentially save money by adjusting their habits.
- For power companies, smart meters are a game-changer.
- They can improve billing accuracy, reduce meter reading costs, and even help manage overall power demand.
- Plus, these meters connect to a central system, helping to cut down on losses and boost revenue for power companies.
- Overall, the smart meter rollout is a step towards a more efficient and reliable power sector in India.

139. ICCC: Integrated farm data dashboard

News:

- Earlier this month, Agriculture Minister inaugurated a **Krishi Integrated Command and Control Centre (ICCC) set up at Krishi Bhavan** in New Delhi

Prelims Takeaway
• AI
• The Krishi ICCC

- Officials described the ICCC as a "significant leap forward" in **leveraging technology for the advancement of agricultural practices.**

The Krishi ICCC

- It is a digital hub that uses advanced technology to empower farmers.
- It acts like a central nervous system for agriculture, bringing together a wealth of information from various sources like weather stations, land records, and past crop data.
- **Using artificial intelligence,** the Krishi ICCC analyzes this vast amount of detail to provide farmers with personalized advice in their local language.

- Imagine a giant dashboard displaying real-time information about crop yields, rainfall patterns, and even potential droughts.
- This is exactly what the Krishi ICCC offers, **giving farmers a comprehensive view of the agricultural landscape.**
- By bringing all this information under one roof, the Krishi ICCC aims to revolutionize farming by enabling better decision-making and ultimately improving agricultural outcomes.

140. India achieves 16% decline in new TB cases

News:

Prelims Takeaway
• TB
• National Tuberculosis Elimination Programme

- **India's efforts to ensure early tuberculosis detection and treatment initiation,** along with a host of community engagement efforts has resulted in a decline of 16% in incidence (new TB cases emerging each year) and a 18% reduction in mortality, since 2015.

Key highlights

- The incidence rate in India had fallen and the mortality rate had declined from 28 per lakh population in 2015 to 23 per lakh population in 2022
  - according to the India TB report 2024 released by the Union Health Ministry, stating that the country has set 2025 as the target for eliminating the disease.
- Additionally, of all the TB cases notified in 2023, nearly 32% of notifications came from the private health care sector which is an increase of 17% from the previous year.
- According to the data released in the report, while the overall notification of TB cases has improved by over 50% in the last nine years on an annual basis
  - **Uttar Pradesh saw the highest jump** in notifications (by 21% compared to the previous year).
- the National Tuberculosis Elimination Programme (**NTEP) embarked on a journey towards accelerating TB elimination,** guided by the **National Strategic Plan 2017–25.**
- "The NTEP continued providing free diagnostic services, conducting approximately 1.89 crore sputum smear test," noted the report.

141. Stage-2 of Vikram-1 launch vehicle

News:

Prelims Takeaway
• Vikram-1 launch vehicle
• ISRO

- Leading space-tech company Skyroot Aerospace successfully test fired the stage-2 of its Vikram-1 launch vehicle at the propulsion testbed of the Indian Space Research Organisation (ISRO) at Satish Dhawan Space Centre (SDSC) in Sriharikota, Andhra Pradesh.

Key Highlights

- Launch vehicles comprise multiple stages.
- Stage-2, called Kalam-250, is critical during the ascent of the launch vehicle since it will propel the rocket through the earth's atmosphere and into the vacuum of space.
- Vikram-1 launch will be a landmark event for the Indian space sector as it will be the country's first private orbital rocket launch.
- It follows the suborbital launch of India's first private rocket — the Vikram-S by Skyroot in November 2022, said an official release.
- The test, which lasted 85 seconds, recorded a peak sea-level thrust of 186 kilonewtons (kN), which will translate to a fully expanded vacuum thrust of around 235kN in flight.
- The Kalam-250 is a high-strength carbon composite rocket motor, which uses solid fuel and a high-performance Ethylene-Propylene-Diene terpolymers (EPDM) Thermal Protection System (TPS).

- The stage-2 houses a carbon ablative flex nozzle along with high-precision electro-mechanical actuators for thrust vector control of the vehicle, which helps the rocket achieve the desired trajectory.
- The solid propellant in Kalam-250 was processed by Solar Industries at their Nagpur facility.

142. 250 rescued from cyber fraud centres abroad: MEA

News:

Prelims Takeaway
• Phishing
• Malware

- The Union government is "collaborating closely" with Cambodian authorities and has rescued about 250 Indians from Cambodia
- They had been lured there by cyber fraud and fake online recruitment scams, the Ministry of External Affairs said

Cyber Frauds

- Cyber frauds are criminal activities which are done on the internet or using digital tools to trick people, businesses, or even governments to make money.
- These crimes aim to acquire sensitive information of the business, people, and government.

Methods Of Cyber Frauds

- **Hacking**: Getting into computer systems to get secret information.
- **Phishing:** Tricking people with fake emails, messages, or websites to steal their personal details.
- **Malware: I**nstallment of software to steal information or take control.
- **Identity Theft**: Using someone's personal info to do fraud.
- **Social Engineering:** Tricking people by gaining their trust to get information from them.

Vicious network
A nationwide hunt against agents involved in such scams has revealed some insights into their operations

- Job seekers from across South Asia and South East Asia are recruited by agents operating in Cambodia, Laos, Myanmar and India
- They are promised IT jobs but once there, are forced to work in cyber fraud centres
- They then work over the phone and through social media and get people to invest in fraudulent cryptocurrency trading and other schemes
- MHA says they get over 2,000 calls a day about such scams involving firms in Cambodia and Myanmar
- MEA cautions people against accepting job offers from South East Asia region, asking them to go through authorised agents

GETTY IMAGES/ISTOCK

Editorials, Gists and Explainers

143. Mauritius, Maldives, and India

Context:

- Recent developments in the Maldives and Mauritius underscore **India's strategic interests in the Indian Ocean,** particularly in response to China's increasing presence in the region.

The Maldives case

- The President of Maldives, perceived as pro-China, requested India to withdraw its military personnel from Maldives, after coming to power in November 2023.
- The first team of Indian "technical personnel" reached the Maldives to take charge of one of the three aviation platforms stationed in the country.
- They will replace Indian military personnel whose first batch is required to leave the islands by March 10.
- This is in line with an agreement between India and the Maldives to withdraw Indian military personnel by May 10.

STRATEGIC OUTPOSTS IN INDIA'S NEIGHBOURHOOD

Port of Agalega — Airstrip

Agaléga

South Agaléga Island

ARABIAN SEA — India
Somalia
INDIAN OCEAN — Maldives
Kenya
Madagascar — Agaléga Island
Mauritius

India has upgraded the airstrip and jetty at Agaléga Island, a strategically located Mauritian dependency in the Indian Ocean
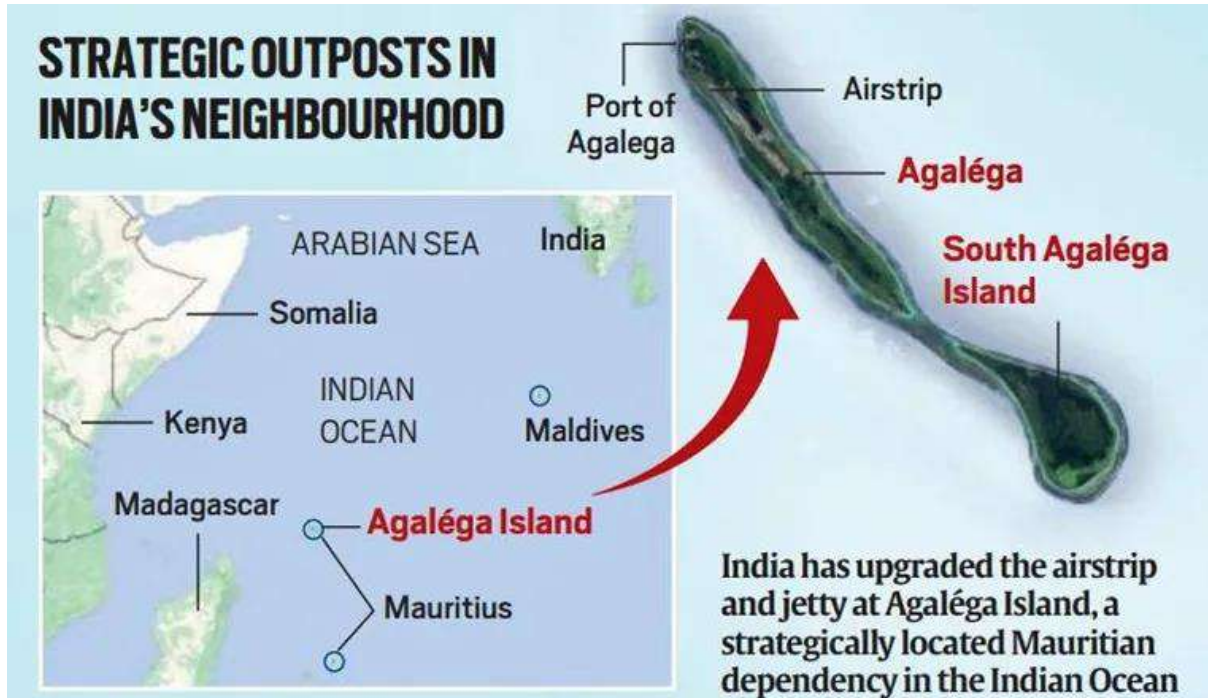
The Mauritius case	China's Presence in the Indian Ocean
- Following the Indian PM's visit to Mauritius in March 2015, India signed a MoU for the "improvement in sea and air transportation facilities" at Agaléga island. - Recently, India and Mauritius jointly inaugurated an airstrip and jetty on Agaléga island, enhancing connectivity and security in the region. - Agaléga is a two-island Mauritian dependency 1,100 km to the north of Port Louis and 2,500 km southwest of Malé. - The inauguration underscores India's commitment to supporting Mauritius in meeting its development goals and enhancing maritime security. - This would lead to more effective monitoring of Mauritius' vast 2.3 million sq km Exclusive Economic Zone. - Further, it will equip Mauritius to better counter-piracy, terrorism, narcotics and human trafficking, and illegal and unregulated fishing.	- China's increasing presence in the Indian Ocean poses challenges to India's strategic interests, particularly in maritime security and regional stability. - China is the only nation with an embassy in each of the six islands in the Indian Ocean viz. Sri Lanka, Maldives, Mauritius, Seychelles, Madagascar, and Comoros. - None of the traditional players viz. the United States, the UK, India, or France have embassies on all six. - China's diplomatic, economic, and military engagements with Indian Ocean island nations raise concerns about its long-term intentions in the region. - Analysts anticipate further expansion, highlighting the need for India to bolster its partnerships and strategic initiatives in response. **India's Response** - India recognizes the strategic significance of collaborating with Indian Ocean island nations to counterbalance China's influence. - Hence, diplomatic efforts are focused on managing domestic politics in island nations while advancing our strategic interests and security cooperation. - India's engagement with the Maldives and Mauritius reflects its commitment to upholding maritime security, regional stability, and economic development in the Indian Ocean region.

144. Mountains of plastics are choking the Himalayan States

Context:
- The **pristine beauty of the Indian Himalayas** is under siege by plastic pollution, fueled by a surge in urbanization, new industrial practices, and a growing tourist influx.
- This **plastic plague threatens the region's delicate** ecosystems and vital freshwater sources for millions downstream.

The Plastic Web:	Finding Solutions: To tackle this crisis, we need:
• Plastic waste is everywhere, from the mountain peaks to the depths of the ocean, even finding its way inside us! Improper disposal pollutes the soil and water, jeopardizing the region's unique biodiversity and the freshwater sources that sustain downstream communities. • **Tourists Leave Their Mark**: The growing popularity of the Himalayas comes at a cost. Popular destinations are drowning in plastic waste, with fragile ecosystems like Ramsar sites bearing the brunt. **Regulation:** • **A Patchy Solution**: While laws like the SWM and PWM Rules exist, they often fail to address the specific needs of mountainous regions. State-level initiatives like bans on plastic use are commendable but face challenges in enforcement and infrastructure creation. • **A Waste Management Gap**: Despite regulations, waste segregation and proper disposal remain inadequate. Overflowing landfills contribute further to the pollution, jeopardizing the entire ecosystem.	• **Investment and Empowerment:** Allocate resources, build infrastructure, and empower local governments to manage waste effectively considering the region's delicate ecosystem. • **Education and Participation**: Engage the public through continuous education campaigns and waste segregation initiatives. • **Pooling Resources:** Combine existing initiatives like Swachh Bharat Mission, grants, and corporate social responsibility funds to strengthen waste management infrastructure and operations.

Conclusion
- By working together, we can ensure that the majestic Himalayas remain a symbol of pristine beauty, not plastic pollution.

145. The status of india's nuclear program

Context:
- Prime Minister witnessed the **start of the process of core-loading the indigenous prototype fast breeder reactor (PFBR)** at the Madras Atomic Power Station in Kalpakkam, Tamil Nadu

Key Highlights	Significance of Prototype Fast Breeder Reactor (PFBR):
• India Starts Fuel Loading for Second Stage of Nuclear Program **India's Three-Stage Nuclear Program:** • Aims to achieve energy security and sustainable development through nuclear power. • **Stage 1:** Uses pressurized heavy water reactors (PHWRs) fueled by natural uranium. • **Stage 2 (**current): Reprocesses spent fuel from stage 1 to create plutonium for fast breeder reactors (FBRs). • **Stage 3** (future): Uses advanced heavy water reactors (AHWRs) that burn thorium-plutonium fuel and generate fissile uranium-233.	• Marks India's entry into the second stage of its nuclear program. • Makes India the second country (after Russia) to operate a commercial FBR. • Demonstrates India's advanced nuclear technology and commitment to peaceful applications. • FBRs are complex and many countries have abandoned them due to technical challenges. • PFBR uses mixed oxide (MOX) fuel initially, transitioning to a thorium-uranium blanket for breeding future fuel. • This project is significant for India's long-term goal of a thorium-based nuclear fuel cycle.

146. Why mineral are critical

News:
- Two important steps have been taken by the government in the past year on the subject of critical minerals.
- The first was to **identify a list of 30 critical minerals** (apart from rare earths, which are clearly identified in the periodic table) in July 2023
- the second was **to amend the existing mining laws** in November 2023 to allow private sector participation in the auction of 20 blocks of critical.

Critical minerals:	Challenges and concerns:
• **Identified**: India has identified 30 crucial minerals essential for various industries, including clean energy, defense, and fertilizers. • **Significance**: These minerals are vital for achieving clean energy goals and national development. The growing demand for electric vehicles and renewable energy creates a massive need for these resources. • **Global demand**: The global demand for critical minerals is expected to skyrocket due to climate change mitigation efforts, making strategic planning and resource security crucial for India.	• **Concentration**: Critical mineral reserves are heavily concentrated in a few countries, mainly China, creating vulnerabilities in global supply chains due to uneven distribution and processing capabilities. • **Chinese dominance**: China's dominance in refining critical minerals and rare earths raises concerns about its potential to influence global supply chains and technological advancements through its monopoly. • **Dependency risks**: India's ambitious clean energy goals rely heavily on critical minerals, particularly for battery manufacturing and renewable energy infrastructure. • Despite efforts to secure resources through agreements with other countries, India remains heavily reliant on imports, posing challenges for domestic industries and technological advancements. **India's response:** • **International collaboration**: India's participation in initiatives like the US-led Minerals Security Partnership • aims to strengthen supply chains by collaborating with countries holding critical mineral deposits and processing expertise, reducing dependency risks.

Long-term solutions:
- **Strategic planning**: The lack of access to critical minerals and processing technology could hinder India's decarbonization journey.
- Long-term strategic planning and resource diversification are essential to overcome these challenges.

147. Can a justice system without women bring justice to women?

Relevance: Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.

Context:
- The latest **India Justice Report (IJR) points out that the gender gap remains wide** in each of the subsystems that make up the justice delivery system — police, judiciary, prisons, legal aid, and human rights commissions.

Key highlights	This lack of women in leadership roles:
• A new report, the India Justice Report (IJR), reveals a concerning lack of women throughout India's justice system. • This is despite quotas meant to increase female participation. • The report shows a significant gender gap across all areas of the justice system, including police, courts, prisons, and human rights commissions. • While quotas have helped some women enter the system, they are mostly concentrated in lower-level positions. **The data is stark:** • only about 3 lakh (300,000) women work in the entire justice system. • Even in the judiciary, the numbers dwindle as you move up the ranks. Just 13% of high court judges are women, and the Supreme Court has only three female judges. There has never been a woman Chief Justice of India. • The report also criticizes the National Human Rights Commission (NHRC) for its lack of gender diversity. • The NHRC has never had a woman commissioner, and only six state human rights commissions have women members or secretaries.	• Suggests a broader apathy towards gender equality within these institutions. • The report criticizes decision-makers for deflecting responsibility and failing to take proactive steps to address the imbalance. • The report argues that a more diverse justice system would benefit everyone. • Research shows that workplaces with greater diversity are more effective. • Including women would bring new perspectives and experiences, leading to a more well-rounded understanding of complex issues. • A more inclusive justice system would also be seen as more legitimate and trustworthy by the public. People are more likely to trust a system that reflects the society it serves.

The report concludes with a call for action.
- Justice institutions need to be prepared to address the challenges that prevent women from fully participating in the system.
- This requires a thorough review of existing structures and practices to identify and eliminate barriers to women's advancement.

148. India's suboptimal use of its labour power

Context:
- A vast majority of **Indians earn the entirety of their incomes through labour as opposed to ownership** of capital or land.
- Further, about **90% of the working Indian population earns its livelihood through informal employmen**t that is characterised by little or no job security, no employment benefits, no social protection, and lower earnings.

A deeper reading of improvements
- At first glance it would seem that things have improved in the recent past for which we have yearly data from the Periodic Labour Force Survey (PLFS)
  - beginning 2017-18, which replaced the earlier periodic National Sample Survey (Employment-Unemployment).
- Overall, the Labour Force Participation Rate (LFPR) has gone up steadily to 58.35% in 2021-22, starting at 52.35% in 2017-18, a trend that is being driven largely by women in rural areas.
- Moreover, the overall unemployment rate has also declined from 6.2% in 2017-18 to 4.2% in 2021-22.
- For the youth, the unemployment rate numbers are higher (12% in 2017-18 to 8.5% in 2021-22) but display the same downward trend.
- For both the LFPR and the unemployment rate, the very latest data available for 2022-23, display the same trajectory.

India's jobs crisis, the macroeconomic reasons
- When we look at the different categories of the employed, namely, regular wage/salaried work, casual work, and self-employment and their trends, we can see that the improvements in LFPR and the drop in the unemployment rate are largely driven by self-employment.
- A disturbing trend emerges if we look at them separately to identify which subcategory explains the overall rise in the self-employed.
- While the fraction of the self-employed who are employers has gone up marginally by less than one percentage point from 3.78% in 2017-18 to 4.57% in 2021-22, t
- the bulk of the growth in self-employment has come from the rise of unpaid family workers, which has increased from 26% to 31.4% over the period.
- Though the absolute number of workers in each employment type is increasing over the period of study, within the employed pool
  - The sharpest rise is seen in the proportion of unpaid family labour such as a helper in the family-run kirana store.

The determinant in more women in the job market
- The average daily earnings for both the salaried and the self-employed stagnated over the period, showing no increase in real terms.
- However, those in casual work saw an increase from ₹162 a day in 2017-18 to ₹196 a day in 2021-22, which is about a 20% increase
- this is the category that is responsible for the moderate increase in the overall average earnings of the employed.
- While this is a positive development, we must put it in context: even with a 30-day work month, casual workers were making ₹6,000 a month at 2010 prices (or, ₹11,520 in 2021 prices).
- this is barely above the poverty line of ₹4,080 a month in rural areas and ₹5,000 a month in urban areas (poverty lines in 2011-12 prices).
- To sum up our findings, while the rise in the LFPR and fall in the unemployment rate since 2017-18 appears to be a positive sign,

Phase of demographic dividend
- Taken together, own-account workers, casual workers, and unpaid family workers form more than three quarters of the employed.
- That is to say, more than three quarters of our working population is engaged in work which is typically of low productivity.
- To put it in context, India is in its period of demographic dividend which is expected to peak in less than 20 years and exhaust in roughly another 30 to 35 years.
- In this golden period of reaping labour productivity, the economy continues to utilise its labour capital in a suboptimal fashion by engaging a majority in low quality work.

149. Poverty estimates the new weapons in India's statistics war

News:
- Although there are debates regarding many of the current government's claims, including about whether India has achieved as rapid growth as it claims, the fog of war is nowhere more present than in the arguments about poverty estimates.

Growing confusion
- At one point, India was the leading developing country to create a statistical system that monitored living standards and was also **the first to establish a widely accepted poverty line.**
- The concept was so influential that it became the reference point and primary basis for **the World Bank's earliest international poverty line developed in the late 1970s.**
- But confusion grew over the last decades as the poverty line for India previously thought suitable lost influence due to phenomena such as 'calorie drift'
  - in which people consume fewer calories but in new forms — and by changes to statistical methodologies, which led to endless debates about comparability.

the committee chaired by Suresh Tendulkar
- The committee held that a suitable poverty line for urban areas (in turn used to anchor the poverty line for all of India)
  - would be the one that happened to produce similar urban poverty estimates to those generated by the prior poverty line.
- The solution to the rot was not a fresh approach, but patch after patch placed upon the old one.
- Unfortunately, such an approach based on a careful reconsideration of concepts and methods has been lacking due to the premium on scoring points.

NITI Aayog's National Multidimensional Poverty Index
- It highlights the service-delivery attainments of the government without addressing whether incomes have been rising
- has added to the confusion, employing shortcuts and extrapolations to allow the government to claim victory just in time for the Lok Sabha election.
- If that were not enough, the government recently released a 'factsheet' of the Household Consumption Expenditure Survey (HCES) 2022-23, which declares, too, **that poverty has fallen sharply**
  - but the study depends on new methods that are insufficiently explained and have left experts reserving judgment.

150. A tribe in the Western Ghats in need of a lifeline

Context:
- The story of Makuta village sheds light on the ongoing **challenges faced by indigenous communities in India.**
- While the **Phani Yerava tribe successfully secured ancestral land rights** under the Forest Rights Act, their way of life is dramatically changing.

Shifting Livelihoods:	Forest Rights Act, 2006

• **Land rights granted:** The tribe secured legal recognition of their historical claim to the forest land.
 • **Decreased reliance on forests:** Market changes and exploitation by middlemen have reduced their dependence on forest resources for income.
 • **Wage labor on the rise:** Many individuals now seek daily wage jobs, often migrating to neighboring states due to better pay compared to traditional practices of collecting minor forest products.
 Emerging Social Issues:
 • **Alcohol addiction:** A concerning rise in alcohol abuse within the community is impacting overall well-being and hindering children's education.
 • **Limited support:** These crucial social issues often lack sufficient awareness and support from governing bodies.
	• The Act recognizes and vests the forest rights and occupation in Forest land in Forest Dwelling Scheduled Tribes (FDST) and Other Traditional Forest Dwellers (OTFD) who have been residing in such forests for generations.
	 • Forest rights can also be claimed by any member or community who has for at least three generations (75 years) prior to the 13th day of December, 2005
	    ○ primarily resided in forest land for bona fide livelihood needs.
	 • It strengthens the conservation regime of the forests while ensuring livelihood and food security of the FDST and OTFD.
	 • The Gram Sabha is the authority to initiate the process for determining the nature
	    ○ and extent of Individual Forest Rights (IFR) or Community Forest Rights (CFR) or both that may be given to FDST and OTFD.

Call to Action:
- Local leaders and activists urge the government to step up and provide targeted interventions to address these emerging social challenges. This would directly contribute to the improvement of living conditions and the well-being of these marginalized communities.

151. How nuclear waste is generated

Context:
- India's nuclear program achieved a milestone by loading its prototype fast breeder reactor core.
- This advancement aligns with their goal of using abundant thorium reserves for energy independence.
- However, a significant challenge remains: managing the nuclear waste produced.

Key Highlights	Nuclear waste concerns:
• **Nuclear waste generation**: When fuel in a reactor absorbs neutrons, it creates radioactive elements. • This waste, called spent fuel, is highly radioactive and requires underwater storage for decades. • Later, it's transferred to secured casks for further storage. • **Global challenge**: Countries with established nuclear programs face substantial waste accumulation. • The US, Canada, and Russia serve as examples.	• **Health hazards**: This waste remains radioactive and poses a threat to human health for millennia. • **Environmental impact**: Accidents like Fukushima and Chernobyl demonstrate the severe consequences of radioactive material release into the environment. • **Financial burden**: Strict regulations govern handling, transport, storage, and disposal of nuclear waste to ensure safety. Maintaining these facilities incurs significant costs and manpower requirements.

152. India's R&D funding, breaking down the numbers

Relevance: Achievements of Indians in science & technology; indigenization of technology and developing new technology.

Context:
- The announcement in the interim Budget for 2024-25, of a corpus of **₹1 lakh crore to bolster the research and innovation ecosystem within the country**

Key Highlights	Investment in R&D

• The significance of research and innovation cannot be overstated in fuelling economic growth, technological advancement, and global competitiveness.
• This entails examining India's comparatively lower R&D expenditure as a percentage of GDP alongside its noteworthy output in terms of patent grants, PhDs awarded, and publication outputs.
• Analyzing the quality of this output is equally imperative in understanding the true implications of these initiatives.
• India's R&D is witnessing significant growth, with a notable increase in Gross Expenditure on Research and Development (GERD) from ₹6,01,968 million in 2010-11 to ₹12,73,810 million in 2020-21.
• However, with research and development investment as a percentage of GDP standing at 0.64%
• India falls behind major developed and emerging economies such as China (2.4%), Germany (3.1%), South Korea (4.8%) and the United States (3.5%).
Research output, innovation
• Annually, India generates an impressive 40,813 PhDs and is in third place after the United States and China.
• Additionally, India's research output remains substantial, ranking third globally, with over 3,00,000 publications in 2022
   ○ highlighting the nation's robust research ecosystem and its commitment to advancing knowledge across diverse fields.
• India also demonstrates commendable performance in patent grants, securing the sixth position globally with 30,490 patents granted in 2022.
• In India, GERD is primarily driven by the government sector, with the private sector industry contributing only 36.4% during 2020–21.
• Collaboration between the government, business enterprises and HEIs is essential to maximise the positive impact of science, technology, and innovation on economic growth and technological advancement.
	• According to the R&D statistics (2022-23) of the Department of Science and Technology, India's total investment in R&D reached $17.2 billion in 2020-21.
	• Within this sum, 54% ($9.4 billion) is allocated to the government sector and predominantly utilised by four key scientific agencies
	   ○ the Defence Research and Development Organisation (30.7%), the Department of Space (18.4%), the Indian Council of Agricultural Research (12.4%), and the Department of Atomic Energy (11.4%).
	• Learning from the R&D ecosystem in other developed countries while maintaining India's strengths in streamlined decision-making and strategic alignment could be a powerful force to optimise its R&D landscape.
	• India must implement policies that incentivise private companies to invest in R&D.
	Impact of initiatives
	• Initiatives such as the National Deep Tech Startup Policy (NDTSP) signal a strong commitment to technological progress and innovation.
	• The recent enactment of the Anusandhan National Research Foundation (ANRF) Act, underscores the government's dedication to catalysing research and innovation as the cornerstone of development.
	• The Act aims to bridge India's persistent R&D investment gap while nurturing a robust research culture within HEIs.

Conclusion

- The interim Budget, combined with the NDTSP and ANRF Act, sends positive signals regarding India's commitment to incentivising private sector-led research and innovation, particularly in burgeoning industries.

153. CAA and status of judicial proceedings

Context:
- Four years after Parliament passed the Citizenship Amendment Act (CAA), 2019, **the Ministry of Home Affairs (MHA) notified the rules to implement the law.**
- The **CAA is also under challenge before the Supreme Court**, with several petitioners moving fresh pleas seeking a stay on the implementation of the rules.
- It fast-tracks citizenship for undocumented immigrants from **six non-Muslim communities — Hindu, Sikh, Buddhist, Parsi, Christian and Jain** — from Pakistan, Afghanistan and Bangladesh.

What are the implications of CAA?	What is the significance of the challenge to Section 6A?

• In December 2019, Parliament passed an amendment to The Citizenship Act, 1955 (1955 Act) introducing a new proviso to Section 2(1)(b) which defines "illegal migrants."
• Accordingly, undocumented immigrants who entered India on or before December 31, 2014,
  ○ whom the Central government has exempted under the Passport (Entry into India) Act, 1920, or the Foreigners Act, 1946
  ○ would be eligible for citizenship under the 1955 Act.
• However, certain tribal areas in Assam, Meghalaya, Mizoram, and Tripura were exempted from the legislation's ambit.
• To access these protected areas, an Inner Line Permit (ILP) is needed from the concerned State governments.
• On May 28, 2021, the Union government issued an order under Section 16 of the 1955 Act
  ○ granting District Collectors in five States with high migrant populations the power to grant citizenship to groups identified in the 2019 amendment.
• The CAA has also been dubbed as a move to subvert the Assam Accord of 1985 that deems any person who cannot prove his ancestry beyond March 24, 1971, as an alien and does not differentiate on grounds of religion.
	• The proceedings against the CAA are also dependent on the outcome of the challenge to Section 6A of the 1955 Act
	  ○ which was introduced in furtherance of a Memorandum of Settlement called the "Assam Accord" signed on August 15, 1985.
	• Section 6A determines who is a foreigner in Assam by establishing March 24, 1971, as the cut-off date for entry
	  ○ those who came to the State on or after January 1, 1966, but before March 25, 1971, were to be declared as "foreigners"
	  ○ would have all the rights and obligations of Indian citizens except that they would not be able to vote for 10 years.
	• If March 24, 1971, is upheld as a valid cut-off date for entry into the State, then CAA can be held to be violative of the Assam Accord since it establishes a different timeline.

154. How AI can accelerate production and dissemination of election disinformation

Context:
- The impact of Artificial Intelligence (AI) on elections gained widespread attention following the 2018 Cambridge Analytica scandal, **which underscored the role of social media in influencing electoral dynamics by exploiting user data from platforms like Facebook.**

Key Highlights	Regulatory steps of India
• AI presents three main avenues through which it can exacerbate the spread of disinformation in electoral contexts. • Firstly, it has the capacity to amplify the reach of false information on a massive scale. • Secondly, through the creation of hyper-realistic deep fakes, AI-generated content can sway voter opinions before it can be effectively debunked. • Thirdly, AI enables precise microtargeting, tailoring propaganda to individual voters with unprecedented accuracy, surpassing the effectiveness of traditional bots and automated accounts. • These risks are compounded by reductions in fact-checking and election integrity efforts by major social media platforms like Facebook and Twitter. • Although platforms like YouTube, TikTok, and Facebook mandate labeling of AI-generated election-related ads, this measure may not be foolproof. • Forecasts suggest that AI will increasingly disseminate harmful content across social media platforms on a near-daily basis by 2024 o potentially influencing elections in over 50 countries and undermining the legitimacy of governments, leading to societal destabilization.	• Recognizing these risks, India has taken regulatory steps to curb misinformation propagated by AI. • The government has called upon digital platforms to implement technical and procedural measures to prevent the spread of harmful misinformation. • The Ministry of Electronics and Information Technology (MeitY) intends to establish a legal framework to address deepfakes and disinformation post-elections. • Recently, MeitY issued an advisory to major tech companies like Google and OpenAI, urging them to ensure their services comply with Indian laws and do not compromise electoral integrity. • However, this move faced criticism from some startups in the generative AI sector, fearing excessive regulation that could stifle innovation. • This incident underscores the delicate balance regulators must strike between combating AI-driven misinformation and fostering innovation in the AI sector.

155. Amid Nepal's continuing political turmoil, confidence vote win for PM Prachanda, the task for India

News:
- **Nepal's Prime Minister won a vote of confidence** in the 275-member lower house of Parliament last week, securing the support of 157 of the 268 MPs who were present.

Nepal's Revolving Door of Power: A Political Tug-of-War	India's Stance
• Nepal's government has been a game of musical chairs, with constant change at the top. • Since becoming a republic in 2008, the country has seen a staggering 13 governments, often led by the same key players: Prachanda, Deuba, and Oli. **Impact of Instability in Nepal** • This constant political **churn has hurt Nepal's economy.** • Many young Nepalis are forced to seek work abroad due to lack of opportunities at home.	• India, Nepal's largest trading partner, is watching these developments with a mix of concern and caution. • While they have a good relationship with Prachanda, his new partner, Oli, has a strained history with India. • Oli's past actions as Prime Minister strained relations between the two countries. **Nepal Between Two Giants** • Nepal's location between India and China creates a complex geopolitical situation. Nepalese leaders have used China as leverage in their relationship with India. • China, in turn, has been increasing investments and aid to Nepal, potentially to counter India's influence.

Way Forward for India
- New Delhi needs a nuanced approach.
- They must prioritize the Nepali people, avoid alienating them, and work towards a strong partnership based on equality, not dominance.

156. The problem of equity in IPCC reports

News:
- UN Climate Report Shows Persistent Inequality in Emissions and Burdens

A new study analyzing UN climate scenarios reveals a troubling trend:
- income, energy use, and emissions disparities between developed and developing countries are projected to widen by 2050, despite considering over 500 future pathways.

Why Equity Matters	Inequities in the IPCC Report
• The UN Framework on Climate Change recognizes the principle of "common but differentiated responsibilities". • This means wealthier nations, who historically contributed more to emissions, should take on a bigger share of the climate action burden. • Focusing solely on technical and economic feasibility risks ignoring this principle. • Ideally, developed regions would achieve "net negative" emissions quickly, freeing up the remaining carbon budget for developing countries to grow sustainably. • However, the current scenarios don't reflect this.	The study examined scenarios from the IPCC's latest report (AR6) and found: • By 2050, Sub-Saharan Africa, South Asia, West Asia, and the rest of Asia (representing 60% of the world's population) are projected to have lower GDP per person than the global average. • Similar disparities exist in consumption of goods and services, energy use, and fossil fuel consumption, with the Global North consuming more than the Global South. • The scenarios project a greater reliance on land-based carbon sinks (forests) and carbon capture technologies (CCS) in developing countries compared to developed ones.

Conclusion
- These findings highlight the need for more equitable climate scenarios.
- Developing countries shouldn't be burdened with both reducing emissions and cleaning up the mess created by developed nations.

157. All eyes are now on the Indian Ocean region

Context:
- While the Indian government's focus from January 2021 was fixed on the Indo-Pacific with a sustained endeavour to strengthen the Quad
- policy attention has shifted back to the Indian Ocean since October 2023.
- Of course, the Indo-Pacific strategy covers both the Pacific and Indian Oceans, but when danger deepens, the immediate neighbourhood matters more than distant shores.

The policy shift	Besides the U.S., where do the U.K., European Union, France, and Germany stand

• The Maldives, seems to be heading on a collision course with India.
 • Despite New Delhi's patience and diplomatic tact, Male continues to deepen its embrace of China.
 • In contrast, Sri Lanka showed greater sensitivity to India's security concerns by imposing a year-long moratorium on foreign research ships, including Chinese ones, to its ports.
 • Last month, India's SAGAR policy produced a valuable dividend
    o as the Prime Ministers of India and Mauritius inaugurated a new airstrip and a jetty in the Agaléga Islands
    o boosting Mauritius's capability to curb illegal activities in its vast Extended Economic Zone.
 • Both the Western Indian Ocean littered with island nations and the Northern Indian Ocean stretching from the Arabian Sea to the Suez have become active geographies again.
 • A clear pattern is emerging behind Beijing's quest for naval bases in Djibouti, Kyaukphyu, Gwadar, and Hambantota.
 • India and the U.S., he underlined, were key stakeholders in the Indo-Pacific region. Cooperation helps them in addressing the strategic competition with China.
 • Collaboration in underwater domain awareness has been identified as a key goal in dealing with the "emerging" threats.
	• While they are concerned about Beijing's illegal claims in the South China Sea, they must see that a similar kind of assertiveness and hostile intent is building up in the Indian Ocean too.
	 • But they display a 'studied ambiguity' when it comes to interpreting China's behaviour and the long-term motivations driving it.
	 • The geographic distance of the European nations from China gives them a sense of security.
	 India's other options
	 • First, India needs to convey a clear message to its strategic partners that while it is conscious of its Indo-Pacific responsibilities
	    o it prioritises the Indian Ocean region.
	 • Second, a critical audit of the Indian Ocean Rim Association (IORA) and the Colombo Security Conclave (CSC) is needed.
	 • While IORA is underperforming and has become too amorphous to be effective, the CSC faces the danger of losing a key member
	    o The Maldives, if the island nation's partnership with China deepens.
	 • It may be time for New Delhi to encourage the creation of a new mechanism with the objective of bolstering maritime security and optimizing the potential for the Blue Economy.
	 • This group could comprise four nations from the neighbourhood (India, Sri Lanka, Bangladesh, and Myanmar) and four island states (Mauritius, Seychelles, Comoros, and Madagascar).
	 • The ninth seat may be kept for the Maldives if it adopts a sensible policy.
	 • This group can be named the 'Indian Ocean Cooperation Organisation'.
	 • As India aims to become the third largest economy, it should find new budgetary resources for its Navy to make it the third or fourth strongest.

158. India to generate 600 kilotonnes of solar waste by 2030

Context:
- **India generated about 100 kilotonnes (kt) of solar waste** in the financial year (FY) 2022-2023, according to a new study published
- The amount of solar waste produced by the country is expected to reach 600 kt by 2030, the study said.

Key Highlights	How to deal with solar waste?

Key Highlights
 • The analysis, was done by the Ministry of New and Renewable Energy (MNRE) and the Council on Energy, Environment and Water (CEEW), a climate think tank.
 • The current solar capacity of India stands at 66.7 GW as of March 2023
     ○ It has increased by 23 times in the past 10 years — and is slated to jump to 292 GW of installed solar capacity by 2030.
 what is solar waste?
 • Solar waste refers to the waste generated during the manufacturing of solar modules and waste from the field (project lifetime), according to the study.
 What are the findings of the study?
 • By 2030, India's current installed solar capacity will generate about 340 kt — three times more than the present.
 • Around 67 per cent of this waste is expected to be produced by five states, including Rajasthan, Gujarat, Karnataka, Tamil Nadu, and Andhra Pradesh.
 • As the discarded modules contain minerals such as silicon, copper, tellurium, and cadmium which have been classified as critical minerals
     ○ for the country's economic development and national security by the Indian government — the study focused on them also.
	How to deal with solar waste?
	 • It urged the policymakers to maintain a comprehensive database of the installed solar capacity, which would help in estimating solar waste in the following years.
	 • The report also said the policymakers should incentivise recyclers, and push stakeholders to effectively manage the growing solar waste.
	 • India needs to focus on creating a market for solar recycling.
	 • The general understanding is that solar waste occurs only when modules reach their end-of-life, which is around 25 years.
	 • However, report points out that there are other ways also through which solar waste is generated.
	 • In conventional recycling more valuable materials like silver and silicon cannot be recovered through this method.
	 • as high-value recycling- this method can recover silver and silicon also with the help of chemical processes.

159. Navigating the global waterscape, its challenges

context:

- **United Nations World Water Development Report** recently, published by UNESCO
- The report reminds us that a "large proportion of the world's freshwater resources are in transboundary waters" including in India.

Key Highlights	**Government schemes to promote water conservation**

• in the South Asian region, the extent of water pollution has worsened considerably in recent years, especially the Meghna, Brahmaputra, Ganga and Indus, warns the 2024 report.
• According to the World Resources Institute, 17 countries face 'extremely high' levels of water stress which is threatening to result in conflict, unrest and peace among people.
• India is not an exception to these problems. In India, water availability is already low enough to be categorised as water
• In almost every State and in the main cities of India, there is groundwater table depletion.
• The example of Bengaluru is one prominent example.
  ○ But, due to a lack of or inappropriate catchment treatment measures, bad design and poor maintenance of water bodies
  ○ most of the reservoirs/ waterbodies/ wetlands have silted up, resulting in reduced storage capacity and lower efficacy.
• There is a lack of proper surface and groundwater management.
• Rainfed regions in India which comprise over 48% of land area produces nearly 45% of the gross agricultural product.
Solution
• This can only be possible by adopting different resource conservation measures in general and rainwater harvesting (in-situ and ex-situ)
  ○ ensuring roof top rainwater harvesting in particular.
• Rain water harvesting (RWH) enables resilience against water scarcity and drought by augmenting recharge and aiding irrigation.
	• 'per drop more crop
	• 'Gaon ka pani gaon mein
	• 'Khet ka pani khet mein
	• 'Har Medh per ped' under various programmes such as the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)
	• watershed management
	• Mission Amrit Sarovar
	• the Jal Shakti Abhiyan programmes.
	• But there is the need for a protocol of the revival of ponds/waterbodies (it is unavailable right now).
	• To tackle all these problems there is a great need to study the condition of every waterbody, its water availability, water quality and the state of ecosystem services it There is a need also to create more waterbodies and their revival in every village by looking into the catchment-storage-command area of each waterbody.
	Additional steps
	• ensuring efficient irrigation techniques such as integrating water resources with micro-irrigations systems and IOT based automation; having integrated water resource management
	• installing water meters to reduce water use for domestic purposes
	• no free electricity, having a convergence and linkages of line departments; fostering community awareness and peoples' participation, awareness campaigns about water conservation; ensuring groundwater use neutrality;

160. Live Coral cover in Gulf of Mannar down to 27%

Context:
- **Climate change and anthropogenic pressures are overpowering corals'** resilience, but Tamil Nadu forest department's community-based initiatives have come as a ray of hope.
- **The Gulf of Mannar on the southeast coast of India** is a major reef region with a significant spatial extent of corals.

Key Highlights	Chief drivers
• The islands and the surrounding shallow coastal waters were declared the Gulf of Mannar Marine National Park (GOMMNP) by the Tamil Nadu government in 1986.	• Coral bleaching and ocean acidification due to climate change were primary reasons behind this colossal loss.
• The beautiful looking coral reefs not only serve as nursing grounds for fishes, but act as natural submerged breakwaters providing coastal protection and flood reduction through wave breaking.	• Annual surveys between 2005 and 2021 show that the coral cover was increasing and reached an all-time high of 42.9% in 2009. • The complete halt of coral mining activities after the 2004 Indian Ocean tsunami increased the trend. • For instance, Shingle island suffered the most with the loss of 72% of its coral cover followed by Krusadai and Pullivasal islands, which lost more than 55%, as per the SDMRI report. • Going by the climate models, there would be severe coral breaching this year.
• The Inter-Governmental Panel for Climate Change (IPCC) has predicted that global coral reefs would decline by 70-90% with global warming of 1.5°C by 2100 and go extinct, if it is 2°C or higher.	• Besides this, mechanised trawling, push net operation, shore seine, trap fishing, surface-supplied diving, spear-fishing, purse seine, bottom settling gill nets, ornamental fish collection o and seaweed collection are some fishing activities that damage the fragile reef ecosystems of the Gulf of Mannar. • However, the primary threats responsible for the declining trend are coral bleaching events o disease outbreaks, algal blooms and invasion of the exotic red alga, Kappaphycus alvarezii.
• During the recently concluded TN Climate Summit 2.0, a study report titled: 'Coral reefs of the Gulf of Mannar: was released.	**Saving sinking islands** • Vaan island. • The island had split into two due to severe erosion after which artificial reef modules were deployed, which worked like magic. **Community engagement reduces anthropogenic pressure**
• It showed that the live coral cover in the region had decline from 37% in 2005 to 27.3% in 2021.	• to reduce the anthropogenic pressures on the reserve, green jobs are being created by providing concessional micro-credit a small amount of capital to fund alternative livelihood. • Community-based eco-tourism is one of the methods to generate new green jobs. • Last year, UNESCO has awarded Bakan the 2023 Michel Batisse Award for Biosphere Reserve Management.

161. The need to curb black carbon emissions

News:
- At the COP26 climate talks in Glasgow in November 2021, India pledged to achieve net-zero emissions by 2070, positioning itself as a frontrunner in the race to carbon neutrality.
- According to the Ministry of New and Renewable Energy, India had installed a renewable energy capacity of over 180 GW by 2023 and is expected to meet its target of 500 GW by 2030.
- While carbon dioxide mitigation strategies will yield benefits in the long term, they need to go hand-in-hand with efforts that provide short-term relief.

Why is black carbon relevant?	What is the government's role?
• Black carbon is the dark, sooty material emitted alongside other pollutants when biomass and fossil fuels are not fully combusted. • It contributes to global warming and poses severe risks. • Studies have found a direct link between exposure to black carbon and a higher risk of heart disease, birth complications, and premature death. • According to a 2016 study, the residential sector contributes 47% of India's total black carbon emissions. • Industries contribute a further 22%, diesel vehicles 17%, open burning 12%, and other sources 2%. • Decarbonisation efforts in the industry and transport sectors in the past decade have yielded reductions in black carbon emissions, but the residential sector remains a challenge. **Has PMUY helped?** • In May 2016, the Government of India said the Pradhan Mantri Ujjwala Yojana (PMUY) would provide free liquefied petroleum gas (LPG) connections to households below the poverty line. • The primary objective was to make clean cooking fuel available to rural and poor households and reduce their dependence on traditional cooking fuels. • The PMUY has established infrastructure to go with LPG connections, including free gas stoves, deposits for LPG cylinders, and a distribution network. • The programme has thus, been able to play a vital role in reducing black carbon emissions, as it offers a cleaner alternative to traditional fuel consumption. • However, in 2022-2023, 25% of all PMUY beneficiaries — 2.69 crore people — availed either zero LPG refill or only one LPG refill, according to RTI data, meaning they still relied entirely on traditional biomass for cooking.	• The key to enhancing the quality of life in these areas lies primarily in securing access to clean cooking fuels. • While the future holds the promise of meeting energy needs in rural areas through renewable sources, the immediate benefits for rural communities are poised to come from using LPG. • Another big hurdle to the PMUY's success is the lack of last-mile connectivity in the LPG distribution network, resulting in remote rural areas depending mostly on biomass. • One potential solution to this issue is the local production of coal-bed methane (CBM) gas by composting biomass. • CBM is a much cleaner fuel with lower black-carbon emissions and investment. • Panchayats can take the initiative to produce CBM gas locally at the village level, ensuring every rural household can access clean cooking fuel.

Conclusion
- As India navigates its responsibilities on the global stage towards long-term decarbonisation, there is an urgent need to act.
- Recent estimates have indicated that mitigating residential emissions will avoid more than 6.1 lakh deaths per year from indoor exposure to air pollution.

162. Preventing a China-Taiwan conflict

Context:
- With expanding national interests, India has stronger compulsions to act against far-off hazards. India finds its interests entangled in disputes on the far edges of Asia, including in Taiwan.

Key Highlights	What India can do
• China claims Taiwan as its own, and is feverishly preparing to seize the island by force if necessary, while the U.S. has increasingly clearly signaled that it would probably fight to defend Taiwan. • India is highly unlikely to fight in a conflict over Taiwan. • It has vital economic and security interests, and valuable policy levers, to ensure that such a conflict never happens.	• Beijing Would doubtless prefer to pursue less costly and disruptive non-military ways as long as they remain viable. • Given the stakes involved, it would only resort to a military campaign once it is satisfied that it has adequately set the conditions for victory. • The military balance across the Taiwan Strait will therefore be the most critical deterrent, but non-belligerent states like India can buttress deterrence by convincing Beijing that it has not adequately set the conditions.

Maintain the status quo
• New Delhi has three main reasons to do so. First, it has a stake in the status quo, with Taiwan as a self-governing territory that does not declare independence.
• India and Taiwan have expanded trade seven-fold since 2001 and are exploring a possible free trade agreement.
• Second, any Chinese aggression against Taiwan would be catastrophically costly for India.
• A recent Bloomberg study estimates that the costs of a conflict would amount to over 10% of global GDP.
• A conflict over Taiwan is something that India simply cannot afford, especially as it seeks stability and growth for national development.
	• India has six types of policy options at its fingertips:
	  ○ international law arguments
	  ○ building narratives opposed to aggression
	  ○ coordinated diplomatic messagin
	  ○ economic de-risking
	  ○ active information operations to support the Taiwanese people
	  ○ military support to the U.S. forces in the Indian Ocean.
	• These options can also advance India's grand strategic position, regardless of their impact on the China-Taiwan dispute.
	• Such policies, therefore, are not a favour to Taiwan or the U.S.; they would be an act of Indian self-interest.

Conclusion
- Depending on the political context, they may invite Chinese retaliation, but no policy is cost-free, and India has recently shown a tough willingness to weather Chinese opprobrium when necessary.
- India's expanding interests and ambitions suggest the need for different policy settings, and the costs of such policies would be dwarfed by the costs of doing nothing.

163. WTO's investment facilitation negotiations are not illegal

News:
- One of the significant developments at the 13th Ministerial Conference (MC13) of the World Trade Organization (WTO) in Abu Dhabi was the non-adoption of the agreement on investment facilitation for development (IFD).

Key Highlights	Investment is not trade

• Despite opposition from countries such as India, negotiations for an IFD agreement at the WTO were launched in 2017 on a plurilateral basis by 70 countries.
 • This was done through a process known as the Joint Statement Initiative.
 • This agreement aims to create legally binding provisions to facilitate investment flows.
 • In Abu Dhabi, these 120 countries wanted to include the IFD Agreement as a plurilateral agreement (PA) within Annex 4 of the WTO Agreement.
 • These PAs bind those WTO member countries that accept them and do not create rights or impose obligations on the remaining members.
 India's concerns
 • The IFD Agreement, among other things, will require states to augment regulatory transparency, and streamline administrative procedures to bolster foreign investment inflows.
 • Importantly, this agreement does not contain provisions on market access, investment protection, and investor-state dispute settlement (ISDS).
 • ISDS, which allows foreign investors to bring treaty claims against the state admitting investment, has been a contentious issue in recent years.
	• On whether investment can be part of the WTO, India's chief contention is that investment per se is not trade.
	 • According to the Organisation for Economic Co-operation and Development, about 70% of international trade occurs through global value chains
	   o which are characterised by trade and investment, thus proving the close relationship between the two.
	 • Therefore, it is unsurprising that several modern-day free trade agreements, such as the Regional Comprehensive Economic Partnership (RCEP) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership include detailed investment provisions covering both facilitation and protection.
	 • Interestingly, India's newly minted trade agreement with the European Free Trade Association also contains provisions on investment
	   o though it is restricted to facilitation and promotion measures.
	 • India argued that in 2004, the WTO's General Council decided that the talks on the relationship between trade and investment
	   o one of the so-called 'Singapore issues' because it was introduced at the 1996 WTO Singapore ministerial conference
	   o would not take place as part of the Doha round of negotiations launched in 2001.

Conclusion
- An essential function of the WTO is to update existing rules and make new ones to govern the increasingly complex nature of international trade.
- However, the WTO's decision-making process remains deadlocked because of the colossal difficulties in arriving at consensus.
- From this perspective, PAs such as the IFD agreement are essential for reinvigorating the WTO's stalemated legislative function.
- India, which will soon be the third biggest economy, should reconsider its defensive approach towards PAs, as in the proposed IFD Agreement in the WTO.

164. Measuring internet freedom in Indiain the last 10 years

Context:
- For five straight years, India has topped the global list of countries imposing internet bans, with about 60% of all blackouts recorded in the world, between 2016 and 2022 having been in India.
- State imposed shutdowns in the last decade have cited national security and threats to public order.

Internet shutdowns	Reason for ban
• The Indian government imposed a total of 780 shutdowns between January 1, 2014, and December 31, 2023, according to data collected by the Software Freedom Law Centre (SFLC). • Shutdowns flared up during the protests against the Citizenship Amendment Act in 2019, the abrogation of Article 370 in 2019, and the introduction of Farm Bills in 2020. • Internet disruptions in India accounted for more than 70% of the total loss to the global economy in 2020. • Indian States and Union Territories can impose an internet shutdown only in case of a "public emergency" or in the interest of "public safety", according to the Indian Telegraph Act. • However, the law does not define what qualifies as an emergency or safety issue. **Anuradha Bhasin v. Union of India case** • The Supreme Court, in the landmark Anuradha Bhasin v. Union of India case, reiterated that internet shutdowns violate fundamental rights to freedom of expression 　o and shutdowns lasting indefinitely are unconstitutional. • Moreover, Courts have asked governments to make shutdown orders public, a provision poorly complied with, experts have noted.	• Between 2015 and 2022, more than 55,000 websites were blocked, according to SFLC data. • The biggest share of content censored was done under section 69A of the IT Act, by the Ministry of Electronics and Information Technology and the Ministry of Information and Broadcasting. • URLs were blocked due to links to organisations banned under the Unlawful Activities (Prevention) Act. • A commonly cited reason for blocking websites is the escalating threat of cybercrime. **India and global trends** • Global Internet freedom has declined for the 13th consecutive year, and the environment for human rights online has deteriorated in 29 countries, according to the latest Freedom House report. • India's ranking has hovered around the same benchmark in the last three years. • This is a dip from 2016 and 2017, when India scored 59 points, to 50 points in 2023.

165. Kerala govt goes to SC over Governor withholding assent to Bills

News:
- **The Kerala government** last week **approached the Supreme Court** saying **President had withheld assent to four Bills passed by the state "while disclosing no reason**
- Governor had withheld assent to seven Bills — some for as long as two years — before referring them to the President.
- Kerala urged the top court to declare the referring of state Bills to the President as "unconstitutional and lacking in good faith".

Governor a role	The Controversy: Taking Too Long
• The Indian Constitution **gives the Governor a role in the state's lawmaking process, but this can lead to friction.** **The Governor's Options:** • **Approve the Bill:** This is the most common scenario. • **Withhold Assent:** The Governor can temporarily block the Bill from becoming law. They can ask the legislature to reconsider it. • **Send to President:** In some cases, the Governor can send the Bill to the President for review.	• The Constitution doesn't specify how long a Governor has to decide on a Bill. • Some Governors hold onto Bills for a long time, frustrating lawmakers. **States Fighting Back** • Several state governments have gone to court arguing that Governors are exceeding their authority by delaying decisions. **President's Role:** • The President's role is more limited than the Governor's. • The President can either approve or reject Bills sent for review, but unlike Governors, Presidents must provide a reason for rejecting a Bill.

The Issue Remains:

- While the Court's decision clarifies the Governor's responsibility, it doesn't give a specific timeframe for decision-making.
- This means the potential for conflict remains. The Kerala government's recent petition to the Supreme Court highlights this ongoing debate.

166. On sustainable building materials

Context:
- India is witnessing an unprecedented construction boom, with over 3,00,000 housing units erected annually.
- This growth brings economic opportunities and improved **living standards but also poses significant environmental challenges.**
- The building sector, a major energy consumer, accounts for over 33% of India's electricity usage, contributing to environmental degradation and climate change.
- **The India Cooling Action Plan forecasts an eight-fold increase** in cooling demand between 2017 and 2037, emphasising the need for thermal comfort while reducing active cooling demand.

Eco-Niwas Samhita:	Residential Envelope Transmittance Value
• It is a Residential Energy Conservation Building code developed by Bureau of Energy Efficiency (BEE). • The code sets standards to limit heat gain and loss and ensure adequate natural ventilation and day lighting potential. **It was launched in two parts** • ENS 2018 (Part 1)sets minimum standards for building envelope designs for energy-efficient residential buildings. • ENS Part 2 launched by the Bureau as ENS 2021 focuses on the building's code compliance and electromechanical systems. • It also addresses other aspects such as, Energy Efficiency in Electro-Mechanical Equipment for Building Operation, Renewable Energy Generation, Embodied Energy of Walling Materials and Structural Systems.	• It is a metric measuring heat transfer through a building's envelope. • Lower RETV values lead to cooler indoor environments and decreased energy usage. • For optimal efficiency, improved occupant comfort and lower utility expenses, it's recommended to maintain an RETV of 15W/m2 or less.

What next?
- Interdisciplinary collaborations with sustainability experts to delve deeper into integrated design and optimise strategies can unlock the potential for a sustainable built environment.
- the journey toward sustainable construction is challenging but essential for a greener future.
- By re-imagining construction design and practices, manufacturing innovative walling materials, and fostering a culture of sustainability, we can create resilient and energy-efficient structures that align with environmental goals and significantly improve the quality of life for the masses.

167. India is making a big push for transnational transport corridors

Context
- From East to West, India today is spearheading **major transnational transport corridors that will eventually link the Atlantic to the Pacific via Asia.**

Key Highlights

- The Prime Minister is pushing hard for these corridors
  - The India-Middle East-Europe Economic Corridor (IMEC) initiative through the Arabian peninsula
  - The International North-South Transport Corridor (INSTC) in the West to the trilateral highway in South East Asia
  - The Chennai-Vladivostok route to the East.
- While IMEC aims to connect India to Europe via the Arabian Peninsula through rail and sea links
- INSTC — conceptualised two decades ago — spans 7,200 kilometres, encompassing ship, rail, and road routes connecting India through Iran and Central Asia to Russia.
- The Chennai-Vladivostok corridor holds promise for India's connectivity with the Russian Far East.
- The INSTC was initially intended to send goods from India to Russia through Iran. The first set of goods was transited through it in July 2022 via Iran's Bander Abbas port.
- The INSTC has been viewed as a viable solution for sanctioned countries like Iran and Russia.
- External Affairs Minister has started to link the IMEC and another regional connectivity project — the India-Myanmar-Thailand (IMT) trilateral highway.

Growing global push for economic corridors

- The trilateral highway has been a part of the South Asia Subregional Economic Cooperation (SASEC) programme since 2001.
- The programme brings together Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal and Sri Lanka to promote cross-border connectivity and facilitate faster trade connections among the countries.

Partnership for Global Infrastructure and Investment (PGII)

- The G7 recognised this infrastructure gap in 2021 when it announced the Build Back Better World (B3W).
- The B3W aimed to bridge the $40 trillion infrastructure gap in the developing world and offer an alternative to the BRI.
- The efforts were eventually renamed the Partnership for Global Infrastructure and Investment (PGII), on the sidelines of the G7 leaders' summit in Hiroshima, Japan, in 2023.
- The IMEC would see goods shipped from India's Western coast to the UAE and travel via rail to Saudi Arabia and then possibly through Jordan to Israel.
  - Neither Israel nor Jordan signed the original MoU.

Glimpses of global alliances

- As a part of the BRI, in 2017, China hosted the first Belt and Road Forum for International Cooperation (BRI Forum).
- The event drew participation from 29 heads of state and governments, along with delegations representing over 130 countries.
- India refused to attend the forum and even declined to join the initiative.
- The third forum held in 2023 saw the Taliban in attendance despite a lack of international recognition — underscoring Beijing's growing ties with the organisation that has been in power in Afghanistan since 2021.
- Turkey proposed its own "Iraq Development Road" right after IMEC was announced in September 2023.
- The project would see goods transferred to the Grand Faw port at the tip of Iraq and then carried by land to Turkey before they reached Europe.

Quick Look

168. Very Short-Range Air Defence System (VSHORADS)

- Recently, the DRDO successfully conducted two flight tests of the Very Short-Range Air Defence System (VSHORADS) missile.
- VSHORADS is a fourth-generation Man Portable Air Defence System (MANPAD) specially designed to counter low-altitude aerial threats over short distances.
- These are short-range, lightweight, and portable surface-to-air missiles that can be fired by individuals or small groups.
- It has been designed and developed indigenously by DRDO's Research Centre Imarat (RCI), Hyderabad, in collaboration with other DRDO laboratories and Indian industry partners.
- Key Features
  - It is designed to provide short-range air defence capabilities to protect ground forces and critical assets from aerial threats.
  - It incorporates many novel technologies, including a Dual-band IIR Seeker, a miniaturised Reaction Control System, and integrated avionics.
  - It is propelled by a dual-thrust solid motor.
  - The missile and its launcher are portable, which enables their quick deployment over difficult terrain.

169. BioTRIG

- A recent study claimed that BioTRIG, a new waste management technology based on the pyrolysis system, could help the rural Indians.
- It works by sealing the waste inside an oxygen-free chamber and heating it above 400 °C; useful chemicals are produced in the process.
- The researchers outlined three products of pyrolysis viz. bio-oil, syngas and biochar fertiliser that could help rural Indians live healthier and greener lives.
- Significance
  - The syngas and bio-oil facilitate heat and power the pyrolysis system in future cycles and surplus electricity is utilized to power local homes and businesses.
  - The environmentally friendly bio-oil is utilized as a substitute for traditional cooking fuels in households, and biochar is used for carbon storage, enhancing soil quality and fertility.
  - It could help reduce greenhouse gas emissions from communities by nearly 350 kg of CO_2-eq per capita per annum.
  - It could help rural Indians cut indoor air pollution, improve soil health, and generate clean power.

170. Juice Jacking

- Recently, the RBI has issued a cautionary message to mobile phone users about juice jacking.
- The term "juice jacking" was first coined in 2011 by investigative journalist Brian Krebs.
- It is a form of cyberattack where a public USB charging port is tampered to steal data or install malware on devices connected to it.
- The attack is used by hackers to steal users' passwords, credit card information, addresses, and other sensitive data stored on the targeted device.

171. Roen Olmi

- Recently, researchers in Goa synthesised gold nanoparticles from a wild mushroom species eaten as a delicacy widely in the coastal state.
- Roen olmi is a mushroom of the Termitomyces species that grows on termite hills.
  - They have no independent existence; they grow only in association with termites.
- It is an edible wild mushroom popular among Goans and consumed during the monsoons.
- It is endemic to the Western Ghats, where the thick forest cover and high humidity provide an ideal breeding ground.

- It plays a very important role as a powerful biodegrading fungus in forest and grassland ecosystems converting 50% of dead plant material on the ground into rich soil.
- Additionally, Termito-myces have been recognized for their ethno-medicinal importance in various indigenous communities throughout Asia and Africa.

172. Gamma Ray Astronomy PeV EnergieS phase-3 (GRAPES-3) Experiment

- GRAPES-3 is designed to study cosmic rays with an array of air shower detectors and a large area muon detector.
- Located in Ooty, India, it is operated by the Tata Institute of Fundamental Research.
- It aims to probe the acceleration of cosmic rays in different astrophysical settings.
- Objectives: To study
  - the origin, acceleration and propagation of >1014 eV cosmic rays in the galaxy and beyond.
  - the existence of "Knee" in the energy spectrum of cosmic rays.
  - the production and/or acceleration of the highest energy (~1020 eV) cosmic rays in the universe.
  - the astronomy of multi-TeV γ-rays from neutron stars and other compact objects.
- The GRAPES-3 experiment recently discovered a new feature in the cosmic-ray proton spectrum at about 166 tera-electron-volt (TeV) energy while measuring the spectrum spanning from 50 TeV to a little over 1 peta-electron-volt (PeV).

173. Obelisks

- Obelisks is a newly discovered class of virus-like entities present in the human body.
- It comprises a class of diverse RNAs that have colonized and gone unnoticed in human and global microbiomes.
- Named after the highly symmetrical, rod-like structures formed by their twisted lengths of RNA, the Obelisks' genetic sequences are only around 1,000 characters (nucleotides) in size.
- These mysterious bits of genetic material have no detectable sequences or even structural similarities known to any other biological agents.
- They're also significantly larger than other genetic molecules that coexist inside cells, from plants to bacteria, called plasmids, which are more commonly composed of DNA.
- Obelisks represent their own class of organism. They lie somewhere between viruses and viroids.
- Although the hosts of other obelisks remain unknown, there is a possibility that some of them may be found in bacteria.
- Different types of Obelisks appear to be present in different areas of our bodies.

174. Vyomitra

- India is preparing for its manned space mission, Gaganyaan, in 2025.
- The country plans to send a humanoid robot named Vyommitra to space first to test critical systems.
- Vyommitra, weighing 40 kg and developed by ISRO.
- It will simulate human functions within the spacecraft's orbit.
- It is equipped to operate control panels, monitor parameters, perform life support operations, and engage in conversations using artificial intelligence.
- Vyommitra aims to ensure the habitability and safety of the Gaganyaan module before crewed flights.
- Her deployment marks a significant step toward future Gaganyaan missions.

175. ABHYAS

- Recently, the Defence Research and Development Organisation (DRDO) successfully conducted four flight trials of the high-speed expendable aerial target 'ABHYAS'.
- ABHYAS is a high-speed expendable aerial target (HEAT).
- It is designed by the DRDO's Aeronautical Development Establishment (ADE).
- It offers a realistic threat scenario for the practice of weapon systems.

- It is the ideal platform for the validation of Armed Forces equipment slated for induction (only those that require aerial engagement).
- It is designed for autonomous flying with the help of an autopilot indigenously made by the ADE.
- It has a radar cross-section and a visual and infrared augmentation system required for weapon practice.
- The target drone has a laptop-based Ground Control System with which the aircraft can be integrated and pre-flight checks, data recording during the flight, replays after the flight and post-flight analysis can be carried out.

176. International Centre for Integrated Mountain Development (ICIMOD)

- Recently, experts from the ICIMOD declared the Hindu Kush Himalaya region a biosphere on the brink of collapse and called for bold action and urgent finance to prevent nature loss.
- The ICIMOD, established in 1983, is an intergovernmental knowledge and learning centre working on behalf of the people of the Hindu Kush Himalaya (HKH).
- Mission: To build and share knowledge that drives regional policy and action and attracts investment that enables the diverse countries and communities of the HKH to transition to greener, more inclusive, and climate-resilient development.
- Member countries: Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan.
- Headquarters: Kathmandu, Nepal
- Functions
  - It serves the region through information and knowledge generation and sharing to find innovative solutions to critical mountain problems.
  - It bridges science with policies and on-the-ground practices.
  - It provides a regional platform where experts, planners, policymakers, and practitioners can exchange ideas and perspectives towards the achievement of sustainable mountain development.

177. "State of the Judiciary" Report

- Recently, a report titled 'State of the Judiciary' was published by the Centre for Research and Planning of the Supreme Court.
- Key Findings
  - Nearly one-fifth (19.7%) of district court complexes in India do not have separate toilets for women.
  - Existing women's toilets often suffer from broken doors and irregular water supply, compromising the hygiene and dignity of users.
  - Some court complexes have shared washrooms for male and female judges.
  - Only 6.7% of women's toilets in district court complexes are equipped with sanitary napkin vending machines.
  - Most district courts lack toilets specifically designated for transgender persons.
  - Judges in some instances personally engage sweepers and cleaners to ensure the cleanliness of the toilets.

178. Exercise Desert Cyclone

- It is the inaugural edition of joint military exercise "Desert Cyclone 2024" between India and the United Arab Emirates (UAE).
- It will be held from January 2 to January 15 in Rajasthan.
- The exercise aims to enhance interoperability by learning and sharing best practices in Urban Operations.

- This exercise is marking a significant milestone in the strategic partnership.

179. National Judicial Data Grid

- NJDG is a database of orders, judgments and case details of Courts created as an online platform under the eCourts Project.
- It has been developed by National Informatics Centre (NIC) in coordination with the Computer Cell Registry.
- Data is updated on a near real-time basis by the connected District and Taluka courts.
- Aligned with the National Data Sharing and Accessibility Policy (NDSAP), NJDG provides an Open Application Programming Interface (API) to Central and State Governments.
- Through this one may access case related information, statistics such as institution, pendency and disposal of cases, case-types, year-wise break-up of the Supreme Court of India.

180. Sudarshan Setu

- Recently, the Prime Minister inaugurated Sudarshan Setu, India's longest cable-stayed bridge, in the Gulf of Kutch.
- Also known as Signature Bridge, it will link mainland Gujarat with Bet Dwarka island off Okha coast in Devbhumi Dwarka.
- It provides all-weather road connectivity to Bet Dwarka, the second largest island off Gujarat coast.
- It is technically a sea-link with a total length of 4,772 metres and a 900-metre cable-stayed section.
- This four-lane bridge was constructed at a cost of Rs 978 crore funded by the Union government.
- The bridge features 32 piers supporting seven cable-stayed spans.
- It includes walkways adorned with verses from the Bhagavad Gita and images of Lord Krishna, with solar panels serving as walkway roofs.

181. Savera Program

- Recently, the Haryana Chief Minister inaugurated the Savera program in collaboration with the Medanta Foundation and the Health Department in Gurgaon.
- Aimed at early detection and prevention of breast cancer, the initiative utilizes visually impaired individuals for screening due to their heightened tactile sensitivity.
  - Breast cancer is highlighted as a prevalent cancer type among women in urban areas.
  - Approximately 90,000 women lose their lives to breast cancer daily in India.
- Visually impaired individuals can detect breast cancer lesions as small as half a centimetre, compared to one centimetre by a normal doctor.
- In its initial phase, the programme will be launched at Civil Hospital in Sector 10, the polyclinic in Sector 31, and PHC in Wazirabad.

182. PSiFI System

- Recently, scientists unveiled a pioneering technology, named personalized skin-integrated facial interface (PSiFI), capable of recognizing human emotions in real-time.
- The technology is based on the phenomenon of "friction charging," where objects separate into positive and negative charges upon friction.
- The system features a first-of-its-kind bidirectional triboelectric strain and vibration sensor that enables the simultaneous sensing and integration of verbal and non-verbal expression data.
- Coupled with a sophisticated data processing circuit, the system facilitates seamless wireless data transfer, enabling the instantaneous recognition of emotions.
- Empowered by machine learning algorithms, it showcases remarkable efficiency in recognizing human emotions, even in scenarios where individuals wear masks.
- The PSiFI system is self-powered, facile, stretchable, and transparent.

183. Alaskapox

- Recently, an elderly man from Alaska became the first person to die after contracting Alaskapox.
- Alaskapox is an orthopox virus that was first discovered in Alaska, USA, in 2015.

- It is a double-stranded DNA virus belonging to the same genus Orthopoxvirus as smallpox, monkeypox, and cowpox.
  - Orthopoxviruses are zoonotic viruses that can infect various mammals, including humans.
- Current evidence indicates that the Alaskapox virus primarily occurs in small mammals.
  - The virus has been most commonly identified in red-backed voles and shrews.
- Symptoms: One or more skin lesions (bumps or pustules), swollen lymph nodes and joint and/or muscle pain. Immunocompromised people might be at increased risk for more severe illness.
- Transmission: While human-to-human transmission of Alaskapox has not yet been observed, some orthopoxviruses can spread by direct contact with lesions.

184. Bochasanwasi Akshar Purushottam Swaminarayan Sanstha (BAPS)

- The Prime Minister will inaugurate the Bochasanwasi Akshar Purushottam Swaminarayan Sanstha BAPS Mandir, the first Hindu temple in Abu Dhabi.
- BAPS is a socio-spiritual Hindu faith based on the Vedic teachings propagated by Bhagwan Swaminarayan (1781-1830 CE).
- It is an NGO with a Consultative Status with the Economic and Social Council of the United Nations.
- It was formally established in 1907 CE by Brahmaswarup Shastriji Maharaj.
- Five-lifetime vows of BAPS followers: No Alcohol, No Addictions, No Adultery, No Meat, No Impurity of body and mind.

185. SWATI Portal

- Recently, the Principal Scientific Advisor to the Government of India launched "Science for Women- A Technology & Innovation (SWATI)" Portal.
- Aim: To create a single online portal representing Indian Women and Girls in STEMM (Science, Technology, Engineering, Mathematics and Medicine).
- The database of the SWATI Portal will serve in policy-making to address the challenges of Gender-gap.
- It is developed, hosted and maintained by the National Institute of Plant Genome Research (NIPGR), New Delhi.

186. Gold Nanoparticles

- Gold nanoparticles (AuNPs) are small gold particles with a diameter of 1 to 100 nm.
- Once dispersed in water, AuNPs are also known as colloidal gold.
- These are also called as 'gold bhasma,'
- Spherical AuNPs possess useful attributes such as size- and shape-related optoelectronic properties, large surface-to-volume ratio, excellent biocompatibility, and low toxicity.
- Important physical properties of AuNPs include surface plasmon resonance (SPR) and the ability to quench fluorescence.
- Spherical AuNPs exhibit a range of colors (e.g., brown, orange, red and purple) in aqueous solution as the core size increases from 1 to 100 nm.

187. Golden Langurs

- It can be most easily recognized by the color of their fur, after which they are named.
- It has been noted that their fur changes colors according to the seasons.
- The color of the young also differs from adults in that they are almost pure white.
- It is limited to Assam, India and neighboring Bhutan where they live year-round.
- The area they inhabit is restricted to the region surrounded by four geographical landmarks: the foothills of Bhutan (north), Manas river (east), Sankosh river (west), and Brahmaputra river (south).

188. Inflection 2.5

- It is an "upgraded in-house model that is competitive with all the world's leading LLMs.
- The newly upgraded Large Language Model comes with its signature personality and uniquely empathetic fine-tuning.

- With the new upgrade, Pi has now been endowed with world-class real-time web search capabilities to ensure that users get access to high-quality and up-to-date information in real time.
- The new LLM, users are talking to the Pi chatbot about a wider range of topics including
    o discussing current events
    o getting local restaurant recommendations
    o studying for a biology exam
    o drafting business plans
    o Coding
    o even fun discussions on hobbies.

189. Multiple Independently Targetable Re-entry Vehicle (MIRV) technology

- The MIRV can target multiple targets that can be hundreds of kilometers apart with a single missile.
- As of now, the United States, Russia, China, France and the United Kingdom are known to have MIRV-equipped missiles.
- While Pakistan is developing such a missile system, Israel too is suspected to either possess the missile or be developing it.
- These missiles can be launched from land or from sea (or from a submarine).

190. Sandbox for Agricultural and Rural Security, Technology and Insurance (SARTHI) Portal

- Recently, the Union Agriculture minister unveiled the 'Sarathi' platform.
- Purpose: To provide a full suite of insurance products, including PMFBY, geared specifically for farmers and rural populations in India.
- It is the comprehensive digital insurance platform launched in collaboration with United Nations Development Programme (UNDP) India.
- The portal will be a single-window platform for viewing, purchasing, and availing insurance products.
- The platform has digital payment options and streamlined premium collection, effortless claim initiation, tracking and resolution besides user-friendly interfaces for stakeholders.

191. Build-Operate-Transfer (BOT) Model

- The National Highways Authority of India (NHAI) has come up with a list of high-traffic density corridors for private developers to build and operate under the build-operate-transfer (BOT) model.
- BOT is a type of agreement often used in infrastructure projects, particularly in the construction and operation of public facilities or utilities.
- It is a conventional public-private partnership (PPP) model in which a private entity is granted the rights and responsibilities to design, finance, construct, operate, and maintain a specific project or facility for a defined period of time.
- The private entity also bears the financial and operational risks associated with the project during the contract period.
- At the end of the contract period, the ownership and control of the facility are transferred back to the government or public authority, which may have been the original owner.
- The transfer is often accompanied by a predetermined valuation or compensation mechanism.
- The private company gains revenue during the concession period, while the government benefits from infrastructure development without upfront investment.
- BOT is particularly well-suited for greenfield projects (new projects without prior work) and large-scale, capital-intensive projects.

192. Zircon Missile

- In an attempt to hit a target in Kyiv, Russian forces recently launched a 3M22 Zircon missile.
- The 3M22 Zircon, or SS-N-33, is a scramjet-powered manoeuvring anti-ship hypersonic cruise missile developed in Russia.
- The missile is reportedly capable of flying with speeds up to Mach 9 and a range of 1000 km.

- It is a two-stage missile that uses solid fuel in the first stage and a scramjet motor in the second stage.
- The missile uses cooled supersonic combustion ramjet engines, which facilitate combustion by compressing air flowing at supersonic speeds due to the missile's forward motion.
- Guidance System: Active and Passive Radar Seeker.
- During flight, the missile is completely covered by a plasma cloud that absorbs any rays of radio frequencies and makes the missile invisible to radar

193. Exercise -Sada Tanseeq

- Recently, the militaries of India and Saudi Arabia are conducting their first Joint Military Exercise named as Sada Tanseeq at Mahajan, Rajasthan.
- Objective: To train troops of both sides for Joint Operations in Semi Desert terrain under Chapter VII of the United Nations Charter.
- It will enable both sides to share their best practices in the tactics, techniques and procedures of conducting operations in sub-conventional domains.
- It will facilitate developing interoperability, bonhomie and camaraderie between troops from both sides.
- It will involve Establishment of Mobile Vehicle Check Post, Cordon & Search Operation, House Intervention Drill, Reflex Shooting, Slithering and Sniper Firing.

194. Nonalcoholic Steatohepatitis (NASH)

- It is liver inflammation and damage caused by a buildup of fat in the liver. It is part of a group of conditions called nonalcoholic fatty liver disease.
- NASH can get worse and cause scarring of the liver, which leads to cirrhosis. But the disease doesn't always get worse.
- It is similar to the kind of liver disease that is caused by long-term, heavy drinking. But NASH occurs in people who don't drink alcohol.

195. Reusable Landing Vehicle (RLV) LEX 02

- This landing experiment is the second of the series conducted at Aeronautical Test Range.
- After the RLV-LEX-01 mission was accomplished last year, RLV-LEX-02 demonstrated
  - the autonomous landing capability of reusable launch vehicle (RLV) from off-nominal initial conditions at release from helicopter.

196. Magnetotactic bacteria

- These are mostly prokaryotic organisms that arrange themselves along the earth's magnetic field.
- These organisms were believed to follow the magnetic field to reach places that had optimal oxygen concentration.
- These bacteria contained "novel structured particles, rich in iron" in small sacs that essentially worked as a compass.
- These magnetotactic bacteria create tiny crystals made of the iron-rich minerals magnetite or greigite.

197. Meme coins

- These are a unique category of cryptocurrencies, have gained significant popularity in the digital currency space.
- These trace their origin to the growth of meme culture on the internet.
- These are also known as 'memetic tokens' or 'community coins', meme coins are digital currencies created as a form of satire or humorous tribute to the internet culture.

- They often feature names, logos and branding that reference popular memes, jokes or internet phenomena.

198. Afanasy Nikitin Seamount

- The AN Seamount is a structural feature in the Central Indian Basin, located about 3,000 km away from India's coast.
- It comprises a main plateau, rising 1200 m above the surrounding ocean floor (4800m). It is rich in deposits of cobalt, nickel, manganese, and copper.
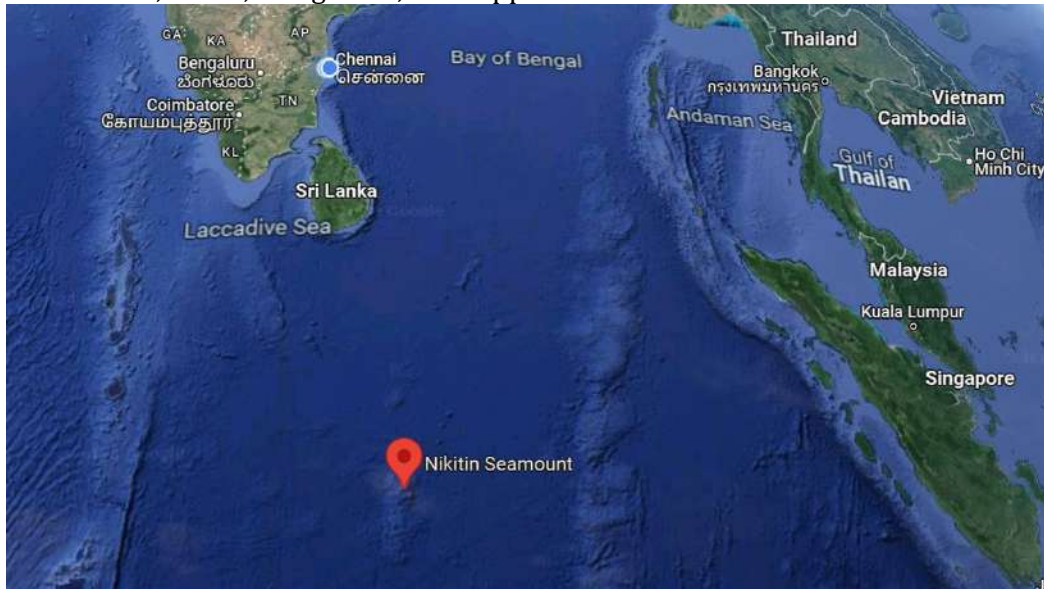
199. Food Waste Index Report 2024

- It a study jointly authored by the United Nations Environment Programme (UNEP) and WRAP (Waste and Resources Action Programme), a U.K.-based non-profit.
- It tracks the global and national generation of food and inedible parts wasted at the retail and consumer (household and food service) levels.
- The report defines "food waste" as "food and the associated inedible parts removed from the human food supply chain".
- "Food loss" is defined as "all the crop and livestock human-edible commodity quantities that, directly or indirectly, completely exit the post-harvest/slaughter production/supply chain up to, and excluding, the retail level".
- It noted that in 2022, there were 1.05 billion tonnes of food waste generated (including inedible parts), amounting to 132 kilograms per capita and almost one-fifth of all food available to consumers.
- Many low- and middle-income countries continue to lack adequate systems for tracking progress to meet Sustainable Development Goal 12.3 of halving food waste by 2030.

200. Konda Reddi Tribe

- Konda Reddis is a Particularly Vulnerable Tribal Group inhabiting the banks of the river Godavari and also in the hilly forest tracts of Godavari and Khammam districts of Andhra Pradesh.
- Their mother tongue is Telugu, with a unique accent.
- The Konda Reddy tribe is divided into exogamous septs for regulating matrimonial relations.
- Like other Telugu-speaking people, their surnames are prefixed to individual names.
- Generally, each sept is exogamous, but certain septs are considered as brother septs and marriage alliances with brother septs (agnate relations) are prohibited.

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