



Daily Current Affairs

GEO IAS

SOURCES



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Important News Articles

GSI

INDIAN SOCIETY

1. India risking demographic dividend

News:

- **The World Bank has warned that the South Asia** region including India was not making use of its demographic dividend as the pace of job creation in the region
- It will lead to **fell short of growth in the working-age population**, even as it projected a strong 6.0-6.1% growth for 2024-25 for the region in its South Asia regional update, Jobs for Resilience

Prelims Takeaway

- Demographic dividend
- TFR

Key highlights

- Observing that **India's employment growth was "well below" the average growth** in its working age population for the 2000-23 period
- the multilateral lender said consequently the country's employment ratio had declined more than in any other country in the region except Nepal up till 2022.
- Noting that India's economy was expected to post a "robust growth" of 7.5% in FY23/24, the lender said this growth coupled with recoveries in Sri Lanka and Pakistan, was largely driving the strong numbers for the South Asian region.
- Still, the region could have 16% higher output growth if the share of its working-age population that was employed was on a par with other EMDEs
- **"South Asia is failing right now to fully capitalise** on its demographic dividend, This is a missed opportunity
- The weak employment trends in the region were concentrated in non-agricultural sectors
- To encourage job growth the Bank recommended supporting the participation of women in the economy, increasing openness to trade, and improving education.

Demographic dividend

- It is as **defined by the United Nations Population Fund (UNFPA)**, is "the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)"

Status of India's demographic dividend and challenges

- 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.

2. Youth Suicides in India

News:

- Suicide is the tragic and untimely loss of human life, all the more devastating and perplexing because it is a conscious volitional act.
- India has the dubious distinction of having the highest number of suicides in the world.
- The National Crime Records Bureau (NCRB) reports that 1.71 lakh people died by suicide in 2022.
- The suicide rate has increased to 12.4 per 1,00,000 — the highest rate ever recorded in India

Prelims Takeaway

- National Suicide Prevention Strategy

Key highlights

- India faces a heartbreaking crisis - the highest number of suicides in the world.
- In 2022, a record number of people, over 1.7 lakh, died by suicide, with a disturbingly high rate among young people (under 30) - one every 8 minutes.

This troubling trend raises several concerns:

- **Underestimated Numbers:** The true figures are likely even higher.
- **Young Lives Lost:** Suicide is the leading cause of death for young Indian women.

What's driving this youth suicide problem?

- **Mental Health Issues:** Over half (54%) of youth suicides are linked to mental health problems.
- **Academic Pressure:** Competitive exams, parental expectations, and academic stress all contribute.
- **Substance Abuse:** Alcohol and drug use are known risk factors.
- **Social Issues for Girls:** Arranged marriage, early motherhood, low social status, domestic violence, and economic dependence all play a role.
- **Media Influence:** Sensationalized reporting of suicides, especially involving celebrities, can trigger copycat behavior.

How can India prevent these tragedies?

- **Helping Young People:** Teaching problem-solving skills, identifying mental health issues early, and promoting healthy lifestyles (including responsible internet use) are crucial.
- **Educational Reforms:** Alternative assessment methods can reduce exam stress.
- **Societal Changes:** Combating stigma and discrimination surrounding mental health is essential.
- A National Suicide Prevention Strategy, launched in 2022, aims to reduce suicides by 10% by 2030.
- This strategy focuses on leveraging schools, youth clubs, and student health ambassadors to promote mental well-being and reduce substance abuse.

HISTORY, ART & CULTURE

3. Harappans indigenous to India

News:

- The National Council for Education Research and Training (NCERT) has made revisions in the history book for Class 12 students, particularly regarding the origins and decline of the Harappan civilization,

Prelims Takeaway

- Rakhigarhi
- Mohenjodaro

Harappan Civilization

- The history of India begins with the birth of **the Indus Valley Civilization (IVC)**, also known as Harappan Civilization.
- It flourished around 2,500 BC, in the western part of South Asia, in contemporary Pakistan and Western India.
- The Indus Valley was home to the largest of the four ancient urban civilizations of **Egypt, Mesopotamia, India and China.**

- In 1920s, the Archaeological Department of India carried out excavations in the Indus valley wherein the ruins of the two old cities, viz. **Mohenjodaro and Harappa were unearthed.**
- In 1924, **John Marshall, Director-General of the ASI**, announced the discovery of a new civilisation in the Indus valley to the world.
- Rakhigarhi is an archaeological site located in Hisar district (Haryana), in the Ghaggar-Hakra river plain.

Rakhigarhi

- **It is the largest Harappan site** in the Indian subcontinent
- It is a mature Harappan phase and is represented by a planned township having mud-brick as well as burnt-brick houses with a proper drainage system.
- A cylindrical seal with five Harappan characters on one side and a symbol of an alligator on the other is an important find from this site.
- The ceramic industry was represented by red ware, which included dish-on-stand, vase, perforated jar among others.

4. The rock paintings at Kumittipathi

News:

- An elephant with prominent tusks, painted in white, draws the attention of visitors first at the rock art site at Pathimalai in Kumittipathi, a village around 30 km from Coimbatore city.
- Believed to be around 3,000 years old, these cave paintings are among the important rock arts in the Kongu region.

Prelims Takeaway

- Kumittipathi painting

Kumittipathi painting

- Deep inside a cave in Tamil Nadu, India, lie 3,000-year-old rock paintings.
- These significant works of art offer a glimpse into the lives of the region's earliest inhabitants.
- The paintings depict an elephant, a possible chariot or peacock, and scenes from daily life.
- Interestingly, the artists used a mixture of white pigment and natural gum to create their works on the cave walls.
- Unlike most rock paintings in Tamil Nadu found on sheltered rocks, the Kumittipathi paintings are hidden within a cave, adding to their mystery and intrigue.

5. Jorhat's Statue of Valour

News:

- Meleng-Hollongapar's newest landmark — the Statue of Valour to be inaugurated
- The 125-foot statue depicts Lachit Borphukan, the iconic Ahom general revered for leading the Battle of Saraighat in 1671 to prevent the Mughal army from occupying Assam.

Prelims Takeaway

- Jorhat
- Ahom

Key highlights

- The park encompasses the maidam, or earthen pyramid, where he was buried after the battle.
- **Jorhat town, said to be Assam's tea capital** because of the surrounding plantations, about 300 km east of Guwahati.
- The park is almost as far from the eastern edge of the town along NH-715 as the Sukhapha Samannay Kshetra is from its western edge.
- Dedicated to Swargadeo (or emperor) Sukapha, who came from China's Yunnan to establish the Ahom dynasty that ruled Assam for 600 years until the British takeover in the 1800s
- this represents Ahom pride as much as the Lachit statue park.

Lachit Borphukan

- Born on 24th November, 1622, Borphukan was known for his leadership in the **Battle of Saraighat, 1671** in which an attempt by Mughal forces to capture Assam was thwarted.
- The battle of Saraighat was fought on the banks of the Brahmaputra in Guwahati in 1671.
- It is considered as one of the greatest naval battles on a river **which resulted in the victory of Ahoms over the Mughals.**

- He was the inspiration behind strengthening India's naval force and revitalising inland water transport and creating infrastructure associated with it due to his great naval strategies.
- The Lachit Borphukan gold medal is awarded to the best cadet from the National Defence Academy.
- The medal was instituted in 1999 to inspire defence personnel to emulate Borphukan's heroism and sacrifices.

6. Mahad Satyagraha

News:

- The Mahad Satyagraha is considered to be the 'foundational event' of the Dalit movement.
- This was the first time that the community collectively displayed its resolve to reject the caste system and assert their human rights.

Prelims Takeaway

- Dr. Ambedkar
- PUNA PACT

Mahad Satyagraha of 1927

- It was a pivotal moment in the fight for equality in India.
- **Broken Promises:** In 1923, a law was passed allowing Dalits (untouchables) to access public spaces. However, this change wasn't reflected in reality.
- In response, Dr. B.R. Ambedkar was invited to lead a conference for Dalits in Mahad. Though initially labeled a conference, it transformed into a powerful protest.
- **Defying Tradition:** Around 2,500 Dalits marched to a public water tank, challenging their exclusion.
- Dr. Ambedkar himself drew water, a symbolic act of defiance.
- **Facing Backlash:** Upper-caste Hindus reacted by purifying the tank, highlighting the entrenched discrimination.
- **A Movement Ignited:** Undeterred, Dr. Ambedkar called for a larger-scale Satyagraha, a non-violent protest.
- This marked a turning point, with the movement openly challenging the caste system.
- **Lasting Legacy:** The Mahad Satyagraha is seen as the foundation of the Dalit movement in India.
- It was the first organized effort demanding equal rights under Dr. Ambedkar's leadership.
- This protest served as a blueprint for future struggles against caste discrimination and established Dr. Ambedkar as a leader for the oppressed.

7. Mahavir's focus on free will

News: Mahavir strongly emphasized the importance of free will (the freedom from external influences such as fate) as a core principle of his philosophy.

Mahavir's Philosophy:

- Mahavir strongly emphasized the importance of free will as a core principle of his philosophy.
- According to him life is a combination of "**niyati**" (fate) and "**purusharth**" (action based on free will) and fate is always a result of **purusharth** (previous karma).
- Mahavir preached the supremacy of the "Atma" (the self) in determining one's life. He believed in Atma as "**Paramatma**" (the supreme).
- Mahavir declares that only the one who accepts that it is, in fact, him who is the master of his own destiny, is a true follower of his principles of "**Atmavad**" (belief in souls characteristic of consciousness and supreme potential).

Jainism:

- Jainism became prominent in the **6th century B.C** it was propagated by Mahavira.
- There were **24 tirthankaras**, the last of whom was Mahavira.
- Spread of the new agricultural economy paved for its origin.
- **Three jewels or Triratna** of jainism include Right faith, Right knowledge, Right Action.
- **Doctrine of Jainism** revolves around Ahimsa, Satya, Asteya, Aparigraha, Brahmacharya.
- The fifth doctrine of **Brahmacharya** (observing continence) was introduced by Mahavira.

Prelims Takeaway

- Jainism
- Philosophy of Mahavira

GEOGRAPHY

8. Volcanic Vortex Rings

News:

- **Mount Etna**, the largest volcano in **Europe**, and among the world's most active and iconic volcanoes, has been sending up almost perfect rings of smoke into the air.
- The rings are a rare phenomenon that scientists refer to as **volcanic vortex rings**, which are produced roughly in the same way as the smoke rings that some cigarette smokers are able to blow out.

Prelims Takeaway

- Mt Etna
- Volcanic vortex rings

Mount Etna:

- Mount Etna, is an active volcano on the east coast of Sicily, the largest island in the Mediterranean Sea.
- Etna's peak is the highest in Italy south of the Alps, and it is **Europe's largest and one of the most active volcanoes**.
- Etna has been a **World Heritage Site** since 2013, and according to UNESCO, the volcano's eruptive history can be traced back 500,000 years. At least 2,700 years of this activity has been documented.

Volcanic Vortex Rings:

- Vortex rings are generated when **gas, predominantly water vapour**, is released rapidly through a vent in the crater.
- The vent that has opened up in Etna's crater is almost perfectly circular
- However volcanic vortex rings have been observed at volcanoes such as Redoubt in Alaska, Tungurahua in Ecuador, Pacaya in Guatemala, Eyjafjallajökull and Hekla in Iceland, Stromboli in Italy, Aso and Sakurajima in Japan.

9. Southwest monsoon and weakening of El Nino

News:

- INDIA IS likely to receive "above normal" rainfall this monsoon, the India Meteorological Department (IMD) said in its first long-range forecast for the season
- The country as a whole is expected to get 106 per cent of the long period average (LPA) rainfall, it said.

Prelims Takeaway

- El nino
- La- nina

Ocean temperatures and Indian Monsoon Rainfall:

- El Nino brings warmer than usual sea surface temperatures in the Pacific Ocean, which can lead to less rain during India's monsoon season.
- La Nina, on the other hand, cools the Pacific Ocean and is linked to more monsoon rain in India.
- When neither El Nino nor La Nina is happening, things are neutral, with sea surface temperatures around average.

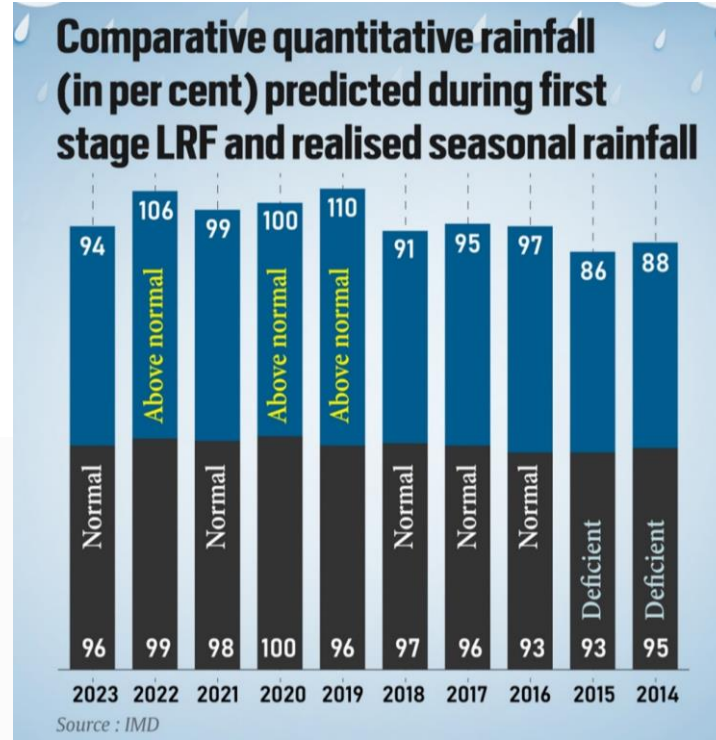
Indian Ocean Dipole (IOD):

- This is a climate pattern in the Indian Ocean where the difference in sea surface temperatures between the eastern and western sides is important.
- A positive IOD means cooler waters in the east and warmer waters in the west, and can also influence Indian monsoon rainfall.
- A negative IOD is the opposite, with warmer eastern waters and cooler western waters.

2024 Monsoon Forecast:

- India's weather service (IMD) predicts above average rainfall for most of the country in 2024.

- Normal rainfall is considered between 96% and 104% of the long-term average (average rainfall over the past 50 years).
- This year, the country is expected to receive 106% of the long-term average rainfall.



10. Three new fish species spotted in the Laccadive Sea

News:

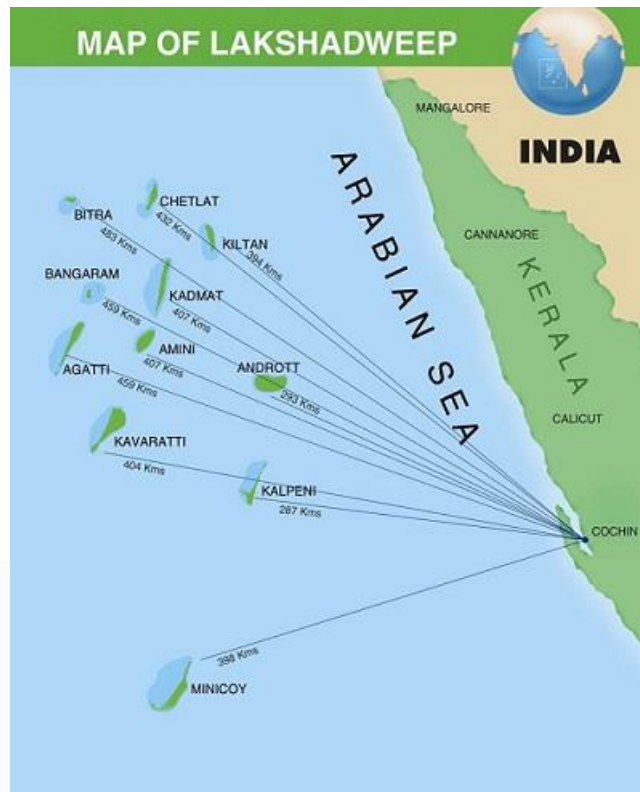
- Three fish species in the **Laccadive Sea** have been found to be capable of using tools.
- They used live or dead coral structures as anvils to break the hard shells of sea urchins so they could get to the edible bits inside
- Unlike primates, birds, otters, octopuses, and many other animals that scientists know are capable of wielding tools

Prelims Takeaway

- Lakshadweep Islands
- Coral

Lakshadweep Islands:

- India's smallest Union Territory, Lakshadweep is an archipelago consisting of 36 islands with an area of 32 sq km.
- It comprises **12 atolls, three reefs**, five submerged banks, and ten inhabited islands.
- All Islands are 220 to 440 km away from the coast of Kochi in Kerala, in the emerald Arabian Sea.
- It is directly under the control of the Centre through an Administrator.
- There are three main group of islands:
 - **Amindivi Islands**
 - **Laccadive Islands**
 - **Minicoy Island.**
- Amindivi Islands are the northernmost while Minicoy island is the southernmost.
- All are tiny islands of coral origin (Atoll) and are surrounded by fringing reefs.
- **Malayalam** is spoken in all the islands except Minicoy where people speak **Mahl** which is written in **Divehi script**.
- Lakshadweep has a tropical climate (27-32 degree celsius) around the year.



11. Eclipse

News:

- Recently, a total solar eclipse will cross North America, passing over Mexico, the United States, and Canada.
- This type of solar eclipse is a rare event for any particular spot.
- According to Royal Museums Greenwich, once a place on Earth witnesses a total solar eclipse, it will be about 400 years before that part sees the next one.

Prelims Takeaway

- Eclipses
- Penumbral eclipse

Rare solar eclipse

- In most calendar years there are two lunar eclipses; in some years one or three or none at all occur.
- Solar eclipses occur **two to five times a year**.
- There were five solar eclipses in 1935 and will be again in 2206.
- The average number of **total solar eclipses is 66 in a century**.
- Any point on the earth may, on the average, experience no more than one total solar eclipse in three to four centuries.

Lunar Eclipse:

- Lunar eclipse takes place when the Moon moves into the Earth's shadow.
- The Earth has to be directly between the Sun and the Moon, and a lunar eclipse can only take place during a full Moon
- Types of Lunar Eclipse:
 - **Total Lunar Eclipse:** A Total Lunar Eclipse happens when the earth is positioned between the sun and the moon and casts a shadow on the latter.
 - **Partial lunar eclipse:** An **imperfect** alignment between Sun, Earth and Moon results in the Moon passing through only part of Earth's umbra.
 - **Penumbral eclipse:** The Moon travels through Earth's penumbra, or the faint outer part of its shadow.
 - The Moon **dims** so slightly that it can be difficult to notice.

Solar Eclipse:

- A solar eclipse happens when the Moon passes between the Sun and Earth, casting a shadow on Earth that either fully or partially blocks the Sun's light in some areas.

- Types of Solar Eclipse
 - **Total Solar Eclipse** : Total solar eclipses occur when the New Moon comes between the Sun and Earth and casts the darkest part of its shadow, the umbra, on Earth.
 - **Annular Solar Eclipse**: Moon appears as a **dark disk** on top of a larger, bright disk, creating what looks like a ring around the Moon.
 - **Partial Solar Eclipse**: Only a part of the Sun will appear to be covered, giving it a crescent shape
 - **Hybrid Solar Eclipse**: Earth's surface is **curved**, sometimes an eclipse can shift between annular and total as the Moon's shadow moves across the globe.

12. India seeks overseas help for lithium processing

News:

- India is in talks with several countries seeking partnerships for technical help on lithium processing, said four sources familiar with the matter, to bolster its nascent lithium mining and electric vehicle industries and avoid relying on China.

Prelims Takeaway

- Cobalt
- Lithium

Key highlights

- India's Ministry of Mines began discussions with Australia and the United States last year
- The Indian government and some private companies have also sought help from Bolivia, Britain, Japan, and South Korea,
- to develop a lithium mining industry that could provide the chemical feedstocks for batteries for its domestic electric vehicle (EV) industry which could help cut its greenhouse gas emissions and oil dependence.
- India needs technology to process lithium and we are looking to collaborate with other countries which have some experience
- In the absence of processing plants, Indian companies would likely ship lithium ores to China and bring the processed metal back to India
- Neighbour and rival China accounts for almost two-thirds of the world's lithium processing capacity.
- The government's top policy think-tank NITI Aayog has recommended incentives for setting up lithium processing plants.
- India's battery industry will require an annual 56,000 metric tons of lithium carbonate by 2030, according to NITI Aayog.

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.

13. Anticyclones, hanging even now over India, link warming to heat

News:

- During its pre-monsoon demise El Nino's impact on the Indian Easterly Jet tends to produce a stronger and more persistent anticyclone which is leading to long lasting and intense heat waves.

Prelims Takeaway

- ANTICYCLONE
- CYCLONE

Highlights:

- In March, the **anticyclonic circulations over the North Indian Ocean created unusual rainfall over Odisha.**
- **Global warming creates unique features locally that modulate heat waves on top of cool background temperatures.**
- Heat waves over India have been of special concern this season
 - **Some persistent circulation patterns have been creating heat waves and this pattern serves as focal point for improving predictions.**

Anticyclones:

- In anticyclonic conditions winds move in a **clockwise direction**, with **air sinking down in the middle of it**. The air is compressed and warmed as it hits the ground and can **create a high pressure heat dome**.
- **During the pre-monsoon season,**
 - The upper-level **Indian Easterly Jet (IEJ)** begins to take shape in the upper atmosphere, across the Arabian Sea, peninsular India, and the Bay of Bengal.
 - A **strong westerly jet** exists to the north.
- During the monsoon season the **westerly jet is pushed north and the IEJ dominates the Indian subcontinent**.
- Anticyclonic conditions can be generated by these two over the Indian Ocean and the Indian subcontinent.
- A **strong anticyclone can bring dry and hot weather over many parts of India while a weak anticyclone produces milder weather.**

Way forward:

- India's prediction system and early warning systems have improved.
 - However, **challenges remain** to build resilience for the future by better predicting the trajectory of the weather at every location over India.
- **Governments, their departments, and the people at large need to be trained and engaged with to make this a sustained success.**

GS II

POLITY & GOVERNANCE

14. SC notice to EC on plea to check EVM, VVPAT counts

News:

- The Supreme Court issued notice to the Election Commission (EC) seeking a direction **to mandatorily cross-verify the count in electronic voting machines (EVMs)** with votes verifiably recorded as cast by counting all voter verifiable paper audit trail (VVPAT) slips.

Prelims Takeaway

- EVMs
- ECI

VVPAT

- It is an independent verification printer machine attached to electronic voting machines (EVMs) that allows voters to verify that their votes have been recorded accurately.
- As soon as the voter presses the **button on the EVM, the VVPAT machine prints the slip** that contains the name and symbol of the party they have voted for, for around 7 seconds.
- VVPAT Machines were first **introduced in India in the 2014 Lok Sabha** elections and were introduced to increase transparency and eliminate doubts about the accuracy of the EVMs.

- VVPAT machines can be accessed by polling officers only.
- According to ECI, EVMs and VVPATs are separate entities and are not connected to any network.

EVMs

- These are electronic voting machines which enable the voter with a button for each choice of candidate.
- It comprises two units – **control unit and balloting unit**.
- It can even be used in areas that have no electricity.
- The control unit is with the **Election Commission selected polling officer**.
- The Balloting Unit is in the voting section into which the voter enters to cast their vote in secret by pressing the button against the name and sign of the candidate of their choice

15. ED can summon anyone for 'any information': SC**News:**

- The Supreme Court **endorsed the sweeping powers of the Enforcement Directorate (ED)**
- It said the Central agency could call “anybody for any information” even as it castigated four Tamil Nadu District Collectors for failing to appear in person in response to a summons issued to them by the anti-money laundering body.

Prelims Takeaway

- Directorate of Enforcement
- FERA

50(2) of the PMLA

- It empowered the ED to summon “any person” whose attendance was considered necessary for giving evidence or production of records in the course of “any investigation or proceeding” under the statute.

Section 50(3)

- It mandated that the individual summoned was “bound to attend in person or through authorised agents” and would be required to make truthful statements and produce required documents.

Directorate of Enforcement (ED)

- The Directorate of Enforcement (ED) is a multi-disciplinary organization mandated with investigation of offences of money laundering and violations of foreign exchange laws.
- It functions under the **Department of Revenue of the Ministry of Finance**.
- The origin of this Directorate goes back to 1st May, 1956, when an ‘Enforcement Unit’ was formed in the Department of Economic Affairs for handling Exchange Control Laws violations under Foreign Exchange Regulation Act (FERA), 1947.
- It was headquartered in Delhi, **headed by a Legal Service Officer as the Director of Enforcement**.
- It had two branches – at Bombay and Calcutta.

Sharp censure

SC reprimands District Collectors of Vellore, Ariyalur, Karur and Tiruchi in T.N. for not appearing before investigative agency

■ Bench states that Section 50(2) of Prevention of Money Laundering Act (PMLA) empowered the ED to summon 'any person' whose attendance was considered necessary for giving evidence or production of records

■ District Collectors express inability to compile data and present it to ED on time owing to poll work and implementation of welfare programmes

■ Bench refuses to accept argument; lists case for May 6



16. Supreme Court to review Kerala verdict on Muslim women's unilateral right to divorce

News:

- The Supreme Court has agreed to examine a plea challenging the Kerala High Court judgment that gave Muslim women the absolute right to seek a divorce through 'Khula'.
- **Islamic law offers two main ways for marriages to end: Khula and Talaq.**

Khula: A Woman's Right to Initiate Divorce

- **Khula, mentioned in the Quran**, empowers women to seek separation from their husbands in court.
- Valid reasons like abuse, neglect, or simply being incompatible can be cited.
- The wife may return her dowry (Mehr) as part of the agreement.
- Importantly, the husband remains responsible for child support after a Khula divorce.

Talaq: Divorce Initiated by the Husband

- In contrast, **Talaq grants husbands the right to divorce their wives without needing court approval or providing a reason.**
- While the dowry and any property owned by the wife must be returned, the process is less structured.
- This system offers both spouses the ability to end an unhappy marriage, but Khula provides women with more control and safeguards their rights during the process.

Prelims Takeaway

- Talaq
- Khula

17. How are symbols allotted to political parties?

News:

- The Naam Tamilar Katchi (NTK) that secured 3.9% and 6.5% votes in Tamil Nadu in 2019 and 2021 respectively, has been allotted a new common symbol (Mike).
- The Viduthalai Chiruthaigal Katchi (VCK) that secured 1.09% and 0.99% votes in 2019 and 2021 has been denied a common symbol (Pot).
- This has raised questions **about the allotment of symbols to 'registered unrecognised parties'.**

What do the rules specify?

Prelims Takeaway

- Election symbol
- ECI

- A party is recognised as a 'national' or 'state' party under the provisions of the Election Symbols (Reservation and Allotment) Order, 1968 (Symbols Order) by the Election Commission of India (ECI).
- The criteria for recognition at the State level consists of
 - winning one Lok Sabha seat for every 25 seats or 3% of Legislative Assembly seats or
 - winning one Lok Sabha or two Assembly seats along with 6% of votes polled
 - securing 8% of votes polled in a general election.
- Symbols are allotted to political parties and contesting candidates as per the provisions of the Symbols Order by ECI.
- In the largest democracy where a sizeable population is still illiterate, symbols play a crucial role in the voting process.
- A recognised political party has a reserved symbol that is not allotted to any other candidate in any constituency.
- For registered but unrecognised political parties, one of the free symbols is allotted as a common symbol during an election
 - if that party contests in two Lok Sabha constituencies or in 5% of seats to the Assembly of a State as the case may be.

What is the current issue?

- Rule 10B of the Symbols Order provides that the concession of a common free symbol shall be available to a 'registered unrecognised party' for two general elections.
- Furthermore, a party shall be eligible for a common symbol in any subsequent general election if it had secured at least 1% of votes polled in the State on the previous occasion when the party availed of this facility.
- Such an unrecognised party should however apply for a symbol every time in the prescribed format.
- This application can be made any time during the period commencing six months prior to the expiry of the term of the Lok Sabha or State Assembly as the case may be.
- The symbols are thereafter allotted on a 'first-come-first-served' basis.

18. How to bridge the gaps in India's education system

News:

- In the Annual Status of Education Report, titled '**ASER 2023: Beyond Basics**', released in January, found that **more than half struggled with basic mathematics, a skill they should have mastered in Classes 3 and 4.**
- a survey by civil society organisation Pratham among rural students aged 14 to 18 years

Prelims Takeaway

- ASER
- ILO

Key highlights

- The household survey conducted in 28 districts across 26 States assessed the foundational reading and arithmetic abilities of over 30,000 students and discovered that about 25% in this age group could not read a Class 2 level text in their vernacular.
- As they grew older, the rate of dropouts increased.
- While 3.9% of 14-year-olds were not in school, the figure climbed to 32.6% for 18-year-olds.
- Also, only 5.6% had opted for vocational training or other related courses.
- Subsequent surveys, including the recent India Employment Report 2024, prepared by the Institute for Human Development and the International Labour Organization
 - Show that while access to education has improved for all social groups, "hierarchy between social groups persists; Scheduled Tribes are still the most disadvantaged."
- Transition rates from primary to upper primary and secondary school show significant dropouts and the gender gap is high too.
- To improve the quality of education imparted to ST children, there needs to be "improvised pedagogy"
 - Instruction in the mother tongue and support materials in tribal dialects.
- "There needs to be synchronisation between school activities and lives of students,

Gender and other inequalities

- Sex, caste, rich/poor, urban/rural divide — that persist in education.
- To implement quality services, bureaucracies need to solve complex problems and adapt to local needs, “

19. Supreme Court stays High Court order striking down law regulating U.P. madrasas

News:

- The Supreme Court recently **stayed the operation of an Allahabad High Court judgment which struck down a 20-year-old Uttar Pradesh law** regulating madrasas and ordered the transfer of their students to regular schools.

Prelims Takeaway

- Article 29
- Article 14

Key highlights

- A three-judge Bench headed by Chief Justice of India decided to freeze the implementation of the High Court judgment of March 22 in an interim order
 - even as the Uttar Pradesh government said it had learnt to “accept” the verdict.
- The State claimed to have fought tooth and nail for the survival of the Uttar Pradesh Board of Madrasa Education Act, 2004 in the High Court.
- However, it has now reconciled to the High Court’s point of view that the Act threatened the principles of secularism and **was violative of the Basic Structure of the Constitution.**
- “The remedy would not be to strike down the Madrasa Board Act
 - **but to issue suitable directions to enable students pursuing their education in madrasas to access the quality** of education made available by the State in other institutions,” Chief Justice dictated in the order for the Bench.

Uttar Pradesh Board of Madarsa Education Act, 2004

- The Act aimed to **regulate and govern the functioning of madrasas** (Islamic educational institutions) in the state of Uttar Pradesh.
- It provided a framework for the establishment, recognition, curriculum, and administration of madrasas across Uttar Pradesh.
- Under this Act, the Uttar Pradesh Board of Madarsa Education was established to **oversee and supervise the activities of madrasas in the state.**

20. VVPAT

News:

- With the first phase of voting set to take place on April 19, the Supreme Court (SC) last week said that petitions seeking 100% verification of Voter Verified Paper Audit Trail (VVPAT) slips would be taken up soon.
- In March 2023, the Association for Democratic Reforms had filed a petition before the apex court
- It says that to ensure free and fair elections, the tally from Electronic Voting Machines (EVMs) should be cross-verified with the VVPATs.

Prelims Takeaway

- VVPAT
- ECI

How VVPATs Work

- VVPAT machines are like receipt printers for electronic voting.
- When you vote on an EVM, a slip showing your chosen candidate pops out for seven seconds behind a glass window.
- This lets you verify your vote before it disappears into a secure box.
- You can't take the slip home, but it's saved to check against electronic results in a few randomly chosen polling stations.

Why VVPATs?

- Introduced in 2013, VVPATs came about after the Election Commission (EC) sought ways to make electronic voting more transparent.
- After trials and feedback, they were rolled out nationwide by 2017.

Legal Battles over VVPATs

- The use of VVPATs has been challenged in court.
- In 2013, a Supreme Court case ruled paper trails were necessary and ordered funding for VVPATs.
- The court ultimately sided with a five-station recount to verify VVPAT.

21. Candidates have a right to privacy from voters, rules SC

News:

- The Supreme Court recently, held that an election candidate has a right to privacy from voters
- It held that there is no need to lay out every scrap of his or her personal life and possessions, past and present, for the electorate to examine with a magnifying glass.

Prelims Takeaway

- RPA 1950
- RPA 1951

Key highlights

- a candidate's choice to retain his privacy on matters which were of no concern to the voters or were irrelevant to his candidature for public office did not amount to a 'corrupt practice' under Section 123 of the Representation of People Act, 1951.
- Such non-disclosure would not amount to a "defect of a substantial nature" under Section 36(4) of the 1951 Act.
- "It is not necessary that a candidate declare every item of movable property that he or his dependent family members own
- unless these items are of such value as to constitute a sizeable asset in itself or reflect upon his candidature, in terms of his lifestyle, and require to be disclosed
- The court said voters have a right to the disclosure of information which was essential for choosing the candidate for whom a vote should be cast.

Section 123 of the RPA 1951

- It defines 'corrupt practices' to include bribery, undue influence, false information, and promotion or attempted promotion of "feelings of enmity or hatred between different classes of the citizens of India
 - on grounds of religion, race, caste, community, or language" by a candidate for the furtherance of his prospects in the election.
- Section 123 (2) deals with 'undue influence' which it defines as "any direct or indirect interference or attempt to interfere on the part of the candidate or his agent, or of any other person
 - with the consent of the candidate or his election agent, with the free exercise of any electoral right."
- This could also include threats of injury, social ostracism and expulsion from any caste or community.
- Section 123 (4) extends the ambit of "corrupt practices" to the intentional publication of false statements which can prejudice the outcome of the candidate's election.

22. SC questions Centre's rigid position on exclusive control over industrial alcohol

News:

- A nine-judge Constitution Bench of the Supreme Court questioned the Centre's rigid position **to have exclusive control over industrial alcohol**
- It also questioned the centre about without giving States even the opportunity to regulate its inflow and clandestine conversion to potable liquor for human consumption, posing a grave threat to public health.

Prelims Takeaway

- Union list
- State list

Key highlights

- "There is a strong possibility of denatured spirit or industrial alcohol being misused for the purpose of human consumption.

- The State is the guardian of public health. States are concerned about liquor tragedies happening within their jurisdictions.
- Centre on the other hand, are a disconnected entity.
- The Centre claimed that industrial alcohol was an “industry” controlled by the Union government in public interest under a parliamentary law.
- **Such an industry was covered by Entry 52 of the Union List** in the Seventh Schedule of the Constitution.
- Though trade and commerce, supply, distribution, and production of the products of such industries were included as Entry 33(a) of the Concurrent List,

Limit of power

- However, States like Kerala, Maharashtra, Punjab and even a petition from Uttar Pradesh raised alarm about industrial alcohol being used to make intoxicating liquor.

Industrial alcohol framework in constitution

- **State List (Entry 8):** Entry 8 in the State List under the Seventh Schedule of the Indian Constitution pertains to the power of state governments to legislate on the production, manufacture, possession, transport, purchase, and sale of intoxicating liquors.
- **Union List (Entry 52):** Confers upon Parliament the authority to legislate on industries deemed expedient in the public interest.
- **Concurrent List (Entry 33):** Allows both states and the Centre to legislate on industries, with the caveat that state laws cannot contradict central laws.
- **Industries (Development and Regulation) Act, 1951:** Industrial alcohol falls under the Industries (Development and Regulation) Act, 1951 (IDRA), which lists it as a subject of regulation.
- This act of Parliament provides the central government with the power to regulate industrial alcohol.

23.SC declines apology by Ramdev, Patanjali

News:

- The Supreme Court refused to accept a second round of apologies from self-styled yoga guru Baba Ramdev, Patanjali Ayurved Limited

Key highlights

- The apex court had initiated contempt proceedings against Patanjali Ayurved for violating an undertaking given to it in November 2023 that they would refrain from advertising “cures” in violation of the 1954 Act.
- The hearing saw the court turn its ire on the Uttarakhand State Licensing Authority for choosing to turn a blind eye to the misleading advertisements.

Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954

- It is a legislative framework **to control the advertisement of drugs and prohibit claims of magical qualities in remedies.**
- It encompasses various forms of advertisements, including written, oral, and visual mediums.
- Under the Act, the term “drug” refers to medicines intended for human or animal use, substances for diagnosis or treatment of diseases, and articles affecting the body’s functions.
- Other than articles meant for consumption, the definition for “magic remedy” under this Act also extends to talismans, mantras, and charms that allegedly possess miraculous powers for healing or influencing bodily functions.
- It imposes strict regulations on the publication of advertisements related to drugs.
- It prohibits advertisements that give false impressions, **make false claims, or are otherwise misleading.**
- Violations of these provisions can result in penalties, including imprisonment or fines, upon conviction.
- The term “advertisement,” under the Act, extends to all notices, labels, wrappers, and oral announcements

Prelims Takeaway

- Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954

24. Supreme Court's curative petition

News:

- The Supreme Court ruled that the Delhi Metro Rail Corporation (DMRC) will not have to pay nearly Rs 8,000 crore to the Delhi Airport Metro Express Private Limited (DAMEPL)

Prelims Takeaway

- Review petition

Curative Petition

- A curative petition, is the final and last option for the people to acquire justice as mentioned and promised by the Constitution of India.
- A curative petition may be filed after a review plea against the final conviction is dismissed.
- Objective:** It is meant to ensure there is no miscarriage of justice, and to prevent abuse of process.
- The court ruled that a curative petition can be entertained if the petitioner establishes there was a violation of the principles of natural justice, and that he was not heard by the court before passing an order.
- It will also be admitted where a judge failed to disclose facts that raise the apprehension of bias.
- The SC has held that curative petitions must be rare rather than regular, and be entertained with circumspection.
- A curative petition must be accompanied by certification by a senior advocate, pointing out substantial grounds for entertaining it.

25. Is transparency lacking in candidate disclosure?

News:

- The Supreme Court** recently held that candidates need not disclose every piece of information and possession in their election **affidavit** unless it is substantial in nature.

Prelims Takeaway

- RPA, 1951
- ECI

Legal Provisions:

- RPA 1951:** Section 33 of the Representation of the People Act, 1951 (RP Act) read with rule 4A of election rules, requires every contesting candidate to file their nomination paper for elections along with an Affidavit.
- Association of Democratic Reforms (ADR) Vs Union of India (2002):**
 - The Supreme Court held that voters have the right to know about the criminal records, income and Assets of candidates along with their educational qualification.
 - This judgement resulted in Section 33A being added to the RP Act that requires details of criminal records to be part of the election affidavit.
- Section 125A** of the RP Act provides that failure to furnish required information, giving false information or concealing any information in the nomination paper or affidavit shall be punishable with imprisonment up to six months or fine or both.
- In Public Interest Foundation Vs Union of India (2018)** it was directed that both candidates as well as political parties to declare about criminal records of candidates
 - at least three times before the election, in local newspapers and electronic media.

Recommendations by Election Commission and Law Commission in its 244th report:

- The conviction for filing a false affidavit should be a minimum of 2 years imprisonment and be a ground for disqualification.
- The Trials of such cases on a must be conducted on daily basis
- Persons charged by a competent court with offences punishable by imprisonment of at least 5 years should be debarred from contesting in the elections provided the case is filed at least 6 months before the election in question.

26. Hindus must seek permission to convert to Buddhism

Prelims Takeaway

News:

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|----------------------------|
| • FUNDAMENTAL RIGHT |
|----------------------------|

- The Gujarat government has released a circular clarifying the recognition of Buddhism as an independent religion.
- It said that conversions from Hinduism to Buddhism, Jainism, or Sikhism must receive prior approval from the relevant district magistrate in accordance with the Gujarat Freedom of Religion Act, 2003.

LAW RELATED TO CONVERSION IN INDIA

- **Article 25 (FUNDAMENTAL RIGHT):** people have the freedom to practice, profess, and propagate any religion.
- Religious groups also have the right to govern their own religious affairs, as long as they abide by public morality, health, and order.
- There are currently **no national restrictions** or regulations on religious conversions in India.
- several states have enacted "Freedom of Religion" laws over the years to prohibit forced, fraudulent, or coerced conversions.
- In general, anti-conversion laws in India require individuals who wish to convert to another religion to obtain government permission beforehand.
- Some states have stricter laws than others, and some laws specifically target certain religious groups or activities.

S. Pushpabai vs. C.T. Selvaraj:

- The Supreme Court affirmed that provided the conversion is genuine and voluntary, individuals have the right to convert to another religion
- It emphasized that any form of coercion or misrepresentation in connection with religious conversions violates the freedom of religion.

27. 'Adjudicating Authority'

News:

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| Prelims Takeaway |
|-------------------------|

- **The Adjudicating Authority** under the Prevention of Money Laundering Act, 2002 (**PMLA**) confirmed the attachment of assets worth Rs 751.9 crore belonging to newspaper community

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An adjudicating authority

- It is appointed by the Indian government, reviews property seizures by the Enforcement Directorate (ED) within 180 days.
- The **ED can seize property** suspected to be linked to money laundering crimes.
- The ED seizes the property for 6 months (180 days) to prevent its disappearance before a trial.
- An adjudicating authority decides if the seizure is valid. If not, the property goes back to the owner.
- If the authority approves the seizure, the owner can appeal the decision through multiple courts.
- The property remains frozen until the legal process is complete.
- In the worst-case scenario, if convicted, the owner loses the property permanently to the government.
- This process can take years, leaving the seized property unusable and potentially damaged.

The Prevention of Money Laundering Act, 2002 (PMLA)

- It is an Act of the Parliament of India enacted to prevent money laundering and provide for the confiscation of property derived from money laundering.
- Section 45 provides for bail on money laundering charges.
- This provision in the law, like the stringent bail standard in the Unlawful Activities (Prevention) Act, 1967 (UAPA), puts the onus on the accused to prove that there is no prima facie case against them while seeking bail.
- However, there is a crucial exception to the bail standard.
- "Provided that a person, who is under the age of sixteen years or is a woman or is sick or infirm, may be released on bail, if the Special Court so directs," the law says.
- This exception is similar to exemptions under the Indian Penal Code for women and minors.

28. Right to sleep can't be violated

News:

- The Bombay High Court said that the right to sleep is a "basic human requirement" and not providing it violates a person's human rights.

Prelims Takeaway

- ED
- Article 21

Key highlights

- The court directed the Enforcement Directorate (ED) to issue directions for maintaining "earthly timings" for recording statements
 - When summons under the Prevention of Money Laundering Act (PMLA) are issued by the agency.
- A court threw out a businessman's complaint about an arrest, but faulted authorities for questioning him all night.
- This violated his right to sleep, which is considered part of the right to live with dignity under the Indian constitution.
- While there are limits to where, when, and how you can sleep (like not sleeping naked in public!), no one can unreasonably prevent you from getting a good night's rest.

Landmark judgement of supreme court

- Sayeed Maqsood Ali vs. State of Madhya Pradesh (2001):** The Madhya Pradesh HC ruled that every citizen is entitled under Article 21 of the Constitution to live in a decent environment and has the right to sleep peacefully at night.
- Re-Ramlila Maidan Incident vs. Home Secretary (2012):** The SC ruled that sound sleep is associated with sound health, which is an inseparable facet of Article 21. It is an unavoidable right of the Indian Constitution.

29. SC allows abortion of 30-week foetus**News:**

- The Supreme Court has allowed a 14-year-old victim of sexual assault to terminate her almost 30-week pregnancy.
- A Bench said it was a "very very exceptional case where we have to protect her (the girl)".

Prelims Takeaway

- MTP act 1971

Abortion law in India

- India's abortion law (MTP Act) from 1971 (amended in 2021) lets women terminate pregnancies.
- Up to 20 weeks, one doctor's approval is enough.
- From 20-24 weeks, it's only allowed in special situations (like rape or young girls) and needs approval from two doctors.
- Beyond 24 weeks, things get complicated.
- Special clinics can decide if an abortion is allowed, but only if there's a serious problem with the fetus (checked by a "viability test" to see if it could survive outside the womb).
- This test is controversial because it's based on a somewhat outdated timeframe (24 weeks).
- Courts can sometimes allow abortions even later.
- For example, a recent case allowed a 14-year-old girl to terminate her pregnancy due to potential mental and physical harm.

MTP act 2021

- The Act regulates the conditions under which a pregnancy may be aborted.
- It increases the time period within which abortion may be carried out.
- Currently, abortion requires the opinion of one doctor if it is done within 12 weeks of conception and two doctors if it is done between 12 and 20 weeks.
- It allows abortion to be done on the advice of one doctor up to 20 weeks, and two doctors in the case of certain categories of women between 20 and 24 weeks.
- It sets up state level Medical Boards to decide if a pregnancy may be terminated after 24 weeks in cases of substantial foetal abnormalities

30. Govt. should act on FMCG firms using 'misleading' ads: SC

News:

- The Supreme Court said the **Centre should “activate itself” against Fast Moving Consumer Goods (FMCG) companies** if they employ “misleading advertisements” about their products to target credulous consumers

Key highlights

- The misleading advertisements of FMCGs take the public for a ride, particularly families, affecting their health.
- The Union Consumer Affairs Ministry has asked the Food Safety and Standards Authority of India (FSSAI) to investigate the allegations against the leading FMCG.

Contempt case

- The court was hearing a contempt case against Patanjali Ayurved, its co-founder and yoga guru Baba Ramdev and his associate Acharya Balkrishna for continuing to advertise their ayurvedic drugs in violation of the Drugs and Magic Remedies Act despite an undertaking given to the Supreme Court.

Fast-moving consumer goods

- These are products that sell quickly and are generally sold at lower prices than slower-moving goods.
- These goods include food, drinks, toothpaste, household cleaning products, and other items that expire or are consumed in less than three years.

Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954

- It is a legislative framework to **control the advertisement of drugs and prohibit claims of magical qualities in remedies.**
- It encompasses various forms of advertisements, including written, oral, and visual mediums.
- Under the Act, the term “drug” refers to medicines intended for human or animal use, substances for diagnosis or treatment of diseases, and articles affecting the body’s functions.
- Other than articles meant for consumption, the definition for “magic remedy” under this Act also extends to talismans, mantras, and charms that allegedly possess miraculous powers for healing or influencing bodily functions.
- It imposes strict regulations on the publication of advertisements related to drugs.
- It prohibits advertisements that give false impressions, **make false claims, or are otherwise misleading.**
- Violations of these provisions can result in penalties, including imprisonment or fines, upon conviction.
- The term “advertisement,” under the Act, extends to all notices, labels, wrappers, and oral announcements.

Prelims Takeaway

- Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954

31. Significant human rights abuses in India, says U.S. report**News:**

- The U.S. State Department released its **2023 Human Rights Report (HRR)**, a country-wise compilation of human rights practices.
- It has flagged “**credible reports**” of more than a dozen different kinds of human rights abuses in India.

Prelims Takeaway

- UDHR
- NHRC

Key Highlights:

- The report highlighted “the outbreak of ethnic conflict between the **Kuki and Meitei ethnic groups.**”
- The report included extrajudicial killings, enforced disappearances, arbitrary arrest or detention, torture to coerce confessions, repeated **Internet shutdowns.**
- The country registered **813 cases of extrajudicial killings** between 2016-2022, with the most reported in **Chhattisgarh**, followed by Uttar Pradesh.

32. Art 244(A) of the Indian Constitution**Prelims Takeaway**

- Art 244(A)

News:

| |
|--|
| <ul style="list-style-type: none"> Sixth Schedule |
|--|

- In Assam's tribal-majority **Diphu Lok Sabha constituency**, candidates have promised the implementation of Article 244(A) of the Constitution to create an autonomous 'state within a state'.
- It covers legislative Assembly segments in three tribal-majority hill districts of Assam: **Karbi Anglong, West Karbi Anglong, and Dima Hasao**.
- The attitude of governments in the state and at the Centre has **not been to grant more autonomy** but to try and take powers back.

Art 244(A):

- Article 244(A)** was inserted by **The Constitution (Twenty-second Amendment) Act, 1969**, which enabled Parliament to pass an Act to "form within the State of Assam an autonomous State, including Karbi Anglong.
- This autonomous state would have its **own Legislature or Council of Ministers** or both.
- This provision gives **further autonomy than** the provisions under **the Sixth Schedule**, which are already in place in these areas.

Sixth Schedule:

- The objectives of the Sixth Schedule of the Indian constitution are:
 - To provide for the administration of tribal areas in the northeastern states of **Assam, Meghalaya, Tripura, and Mizoram**.
 - To protect tribal land and resources** and prohibits the transfer of such resources to non-tribal individuals or communities.
 - To ensure the tribal communities are not exploited or marginalized by non-tribal populations and that their **cultural and social identities** are preserved and promoted.
- The autonomous councils under the Sixth Schedule have elected representatives for more decentralized governance of these tribal areas.
- They have limited legislative powers, do not have control over law and order, and have only limited financial powers.

33. Can Govt redistribute privately owned property

News :

| |
|-------------------------|
| Prelims Takeaway |
|-------------------------|

- The Supreme Court (SC) began hearing an unrelated case about whether the **government can acquire and redistribute privately owned properties** if they are deemed as "material resources of the community" — as mentioned in Article 39(b) of the Constitution.

- | |
|--|
| <ul style="list-style-type: none"> DPSP Fundamental rights |
|--|

Key highlights

- Falling under Part IV of the Constitution titled "Directive Principles of State Policy" (DPSP), Article 39(b)
 - Places an obligation on the state to create policy towards securing "the ownership and control of the material resources of the community are so distributed as best to subserve the common good".
- DPSP are meant to be guiding principles for the enactment of laws, but are not directly enforceable in any court of law.

State of Karnataka v Shri Ranganatha Reddy

- Since 1977, the apex court has weighed in on the interpretation of Article 39(b) on multiple occasions — most notably, in State of Karnataka v Shri Ranganatha Reddy (1977).
- This case saw a seven-judge Bench, by a 4:3 majority, holding that privately owned resources did not fall within the ambit of "material resources of the community".
- However, it was Justice Krishna Iyer's minority opinion which would become influential in years to come.
- The concurring opinion of Justice Paripoornan in the nine-judge Bench case of Mafatlal Industries Ltd v Union of India (1996) held "the words 'material resources' occurring in Article 39 (b) will take in natural or physical resources and also movable or immovable property

- It would include all private and public sources of meeting material needs, and not merely confined to public possessions.”

Cessed properties dispute

- The case currently before the SC arose out of a challenge to the 1986 amendment to the Maharashtra Housing and Area Development Act, 1976 (MHADA) by owners of ‘cessed’ properties in Mumbai.
- MHADA was enacted in 1976 to address a major problem in the city — old, dilapidated buildings housing (poor) tenants despite becoming increasingly unsafe.
- MHADA imposed a cess on the buildings’ occupants, which would be paid to the Mumbai Building Repair and Reconstruction Board (MBRRB) to oversee repair and restoration projects.
- In 1986, invoking Article 39(b), Section 1A was inserted to MHADA to execute plans for acquiring lands and buildings
 - in order to transfer them to “needy persons” and the “occupiers of such lands or buildings”.
- The amendment also inserted Chapter VIII-A to the legislation, which contains provisions allowing the state government to acquire cessed buildings (and the land they are built on) if 70% of the occupants make such a request.
- a seven-judge Bench stated that we have some difficulty in sharing the broad view that material resources of the community under Article 39(b) covers what is privately owned,”
 - and referred the challenge to Chapter VIII-A of the MHADA to a nine-judge Bench — which is now hearing the matter.
- The court, however, held that laws enacted in furtherance of DPSP could not be challenged on the grounds that they violated the right to equality
 - as per Article 31C of the Constitution (“Saving of laws giving effect to certain directive principles”).

34. SC declines petition to end Collegium, revive NJAC

News:

- The Supreme Court Registry has refused to accept a petition to end the Collegium system of judicial appointments and revive the National Judicial Appointments Commission (NJAC).

Prelims Takeaway

- NJAC
- Collegium system

Highlights:

- The Supreme Court Registrar said that the **Collegium system had already been upheld, while the NJAC had been struck down by a Constitution Bench in October 2015.**
 - A review plea against the judgment was also subsequently dismissed by the court in 2018.

Collegium system:

- It is a mechanism devised for the **appointment and transfer of judges.**
- It came into existence through **Second and Third Judges Case judgments.**
- There is no law or **Constitutional Provision that mentions or defines the collegium system.**
- The Supreme Court Collegium is headed by **Chief Justice of India and comprises four other senior most judges of the Supreme Court.**
- Meanwhile, the High Court Collegium is headed by its **Chief Justice and four other senior most judges of that High Court.**

NJAC:

- **99th Constitutional Amendment Act, 2014** and the National Judicial Appointments Act, 2014 proposed to create a **National Judicial Appointments Commission (NJAC).**
 - NJAC was supposed to be an independent Commission to replace the Collegium System for the appointment of Judges to the higher Judiciary.
- NJAC gave an equal role to the government in judicial appointments. **The Commission was proposed to consist of 6 members:**
 - The Chief Justice of India as the ex-officio Chairperson
 - Two senior-most Supreme Court Judges as ex-officio members
 - The Union Minister of Law and Justice as ex-officio member

- Two eminent persons from civil society.

35. NHRC accreditation status

News:

- The National Human Rights Commission (NHRC) is preparing to defend the government's human rights processes at a meeting of the UN-recognised Global Alliance of National Human Rights Institutions (GANHRI) to retain its "A status".

Prelims Takeaway

- GANHRI
- NHRC
- Paris Principles

Highlights:

- The **NHRC's ratings were put on hold in 2023 over concerns on**
 - composition procedure
 - presence of police personnel in human rights investigations
 - lack of gender and minority representation.
- Whether the **NHRC is given an A or B rating will affect its ability to vote at the UN Human Rights Council and some UNGA bodies.**
- The meeting will be held as part of the **five-year peer review** for each member of the **114-member alliance.**
- India, since being accredited in **1999, retained its A ranking** in 2006 and 2011, while its status was deferred in 2016 and restored after a year.

GANHRI:

- Established in **1993 as the International Coordinating Committee of National Institutions for the promotion and protection of human rights**
 - It has changed its name to **Global Alliance of National Human Rights Institutions (GANHRI) in 2016**
- It gathers NHRIs from all over the world to form a member-based network organization
- **It is a respected partner of the international human rights system.**
- The aim of GANHRI's advocacy work is to **positively influence the substantive outcomes of international human rights mechanisms and processes** by bringing the voices and experiences of NHRIs into global discussions.
- In accordance with the **UN Paris Principles and the GANHRI Statute**, the following classifications for accreditation:
 - **A. Fully compliant with the Paris Principles;**
 - **B. Partially compliant with the Paris Principles.**

Paris Principles:

- These are Principles Relating to the **Status of National Human Rights Institutions**
 - They set out the **minimum standards that NHRIs must meet in order to be considered credible and to operate effectively.**
- The key pillars of the **Paris Principles are pluralism, independence and effectiveness.**

36. National Commission for Women (NCW)

News:

- Replying to a query under the **Right to Information Act, 2005, the National Commission for Women (NCW)** has said it has no information on whether its Chairperson and Members are members of any political party.

Prelims Takeaway

- NCW
- RTI

NCW:

- NCW is a statutory body set up under the NCW Act, 1990, by the Ministry of Women and Child Development.
- The Chairperson and Members of the Commission are nominated by the government of India.
- Functions of the commission include:
 - Reviewing the Constitutional and Legal safeguards for women;
 - recommending remedial legislative measures;

- facilitating redressal of grievances and
- advising the Government on all policy matters affecting women.
- NCW also make periodical reports to the Government on any matter pertaining to women and in particular various difficulties under which women toil
- Furthermore, the Commission shall, while investigating any matter referred to in the Act, have all the powers of a civil court.

INTERNATION RELATION

37. India- US joint naval exercise, Tiger Triumph 2024

News:

- The bilateral tri-service **humanitarian assistance and disaster relief (HADR) amphibious exercise between India and the US, Tiger Triumph 2024**, was held on recently.
- The exercise aimed at sharing best practices and Standard Operating Procedures in joint HADR operations

Prelims Takeaway

- HADR
- NDMA

HADR

- These are the exercises that Indian armed forces and Disaster response forces conduct to rescue civilians or demonstrate the capacity to conduct such operations.
- **The Ministry of Home Affairs** generally coordinates these with the Ministry of Defense.

Disaster Management in India:

- In India, NDMA is the apex statutory body for disaster management.
- It was formally constituted on 27th September 2006, in accordance with the Disaster Management Act, 2005 with the Prime Minister as its Chairperson.
- Indian defence forces, under the aegis of Headquarters Integrated Defence Staff (HQ IDS), have been carrying out HADR operations within the country as well as outside the country.
- The defence forces can deliver during various HADR contingencies because of their expertise in damage assessment, evacuation
 - setting up of relief infrastructure, restoring communication and providing medical facilities, distributing ration supplies, clothing etc.

38. India abstains at U.N. Human Rights Council on vote calling for Gaza ceasefire, arms embargo against Israel

News:

- **India abstained on a resolution at the Human Rights Council** that called on Israel for **an immediate ceasefire in Gaza** and called on states to implement an arms embargo, which was adopted by the 47-member Human Rights Council.

Prelims Takeaway

- Arms embargo
- UNSC

The United Nations Human Rights Council (UNHRC)

- It is an international organization that works to protect human rights around the world.
- It was created in 2006 and is based in Geneva, Switzerland.
- The UNHRC has 47 member countries that are elected by the UN General Assembly.
- These countries meet three times a year to discuss human rights issues and investigate human rights abuses.
- The Council has a number of important functions, including:
 - Monitoring human rights conditions in all UN member countries
 - Conducting investigations into human rights abuses
 - Reviewing the human rights records of all UN member countries (Universal Periodic Review)

- Appointing experts to investigate specific human rights issues
- India voted in favor of resolutions criticizing Israel for human rights abuses and calling for Palestinian self-determination, but abstained from a resolution calling for an arms embargo on Israel because it did not condemn Hamas.

Arms embargo

- **The UNSC imposed an arms embargo on Haiti in 2022.**
- It banned all supplies of arms and related materiel to individuals and entities.
- In 2023 it was modified to a full arms embargo on all non-government individuals and entities.
- **The embargo is time limited**

39. Indonesian delegation visits India to learn best practices in mid-day meal scheme & digital inclusion

News :

- Indonesia, following its recently concluded elections, wants to usher in new socio-economic initiatives under President and has approached India to adopt best practices in mid-day meal scheme and digital inclusion.

Prelims Takeaway

- Mid day meal

Mid day meal scheme

- **India's massive school lunch program:** This program, now called the Pradhan Mantri POSHAN Scheme, is the world's biggest of its kind.
- It provides hot meals every day to millions of children from grades 1 to 8, regardless of their background.
- **A long history of helping children:** The program started in 1925 with a focus on underprivileged kids.
- It became a national program in 1995 and has been through a few name changes.
- **Goals for a healthier future:** The program aims to get more children, especially those from disadvantaged families, enrolled and staying in school.
- It also works to fight hunger, improve children's nutrition, and promote social interaction among different castes.
- **Working together to make it happen:** Each state sets up committees to manage the program at different levels.
- The federal government shares the cost with the states, with a higher contribution going to some regions.

40. U.S., Britain, Australia mulling expansion of AUKUS security pact

News:

- The U.S., Britain and Australia are set to begin talks on bringing new members into their AUKUS security pact as Washington pushes for Japan to be involved as a deterrent against China

Prelims Takeaway

- AUKUS
- Map Based questions

Key highlights

- They are not considering expanding the first pillar, which is designed to deliver nuclear-powered attack submarines to Australia,
- AUKUS, formed by the three countries in 2021, is part of their efforts to push back against China's growing power in the Indo-Pacific region.
- China has called the AUKUS pact dangerous and warned it could spur a regional arms race.

AUKUS Grouping

- It is a trilateral security partnership for the Indo-Pacific, between Australia, the UK and the US (AUKUS) which was signed in 2021.
- The major highlight of this arrangement is the sharing of US nuclear submarine technology to Australia.
- Its Indo-pacific orientation makes it an alliance against China's assertive actions in the South China Sea.

- It involves a new architecture of meetings and engagements between the three countries, as well as cooperation across emerging technologies (applied AI, quantum technologies and undersea capabilities).

41. K Kavitha's bail plea

News:

- the stringent **bail provisions in the Prevention of Money Laundering Act (PMLA)** contain an **exception for women**
- A Delhi court is set to decide Bharat Rashtra Samithi leader's plea for bail on this ground in the Delhi excise scam case.

Prelims Takeaway

- PMLA
- UAPA

What is the bail provision in PMLA?

- The Prevention of Money Laundering Act, 2002 (PMLA) is an Act of the Parliament of India enacted to prevent money laundering and provide for the confiscation of property derived from money laundering.
- Section 45 provides for bail on money laundering charges.
- This provision in the law, like the stringent bail standard in the Unlawful Activities (Prevention) Act, 1967 (UAPA), puts the onus on the accused to prove that there is no prima facie case against them while seeking bail.
- However, there is a crucial exception to the bail standard.
- "Provided that a person, who is under the age of sixteen years or is a woman or is sick or infirm, may be released on bail, if the Special Court so directs," the law says.
- This exception is similar to exemptions under the Indian Penal Code for women and minors.

What is the legal precedent?

- The HC said that the PMLA or the Constitution does not make a distinction between a household lady, a businesswoman, or a political figure.

42. Will China flood globe with EVs green tech

News:

- China's burgeoning production of electric cars and other green technologies has become a flashpoint in a new US-China trade fight, highlighted by Treasury Secretary during her five-day visit to China

Prelims Takeaway

- EV
- Map based question

KEY HIGHLIGHTS

- The US and China are clashing again over trade, but this time the fight is about electric cars, solar panels, and other green technologies.
- China has been pouring money into these industries and is now producing a lot more than it can sell domestically.
- This cheap competition worries American companies and the government, who are concerned it could hurt US jobs.
- China argues the US is doing the same with its clean energy subsidies, but the US says they're also boosting American consumer demand, something China hasn't done as much.
- There's no clear solution yet to the US-China green tech trade fight.
- The US wants China to address its concerns, but China argues its cheap products benefit the environment.

However, both sides might have incentives to cooperate:

- China: They have a manufacturing glut and need new markets, plus their own economy depends on boosting domestic spending.
- US: They want to protect their industries but also benefit from lower-priced green tech.

Talks are ongoing, and potential solutions could involve:

- China: Finding ways to reduce production overcapacity and stimulate domestic demand for green products.
- US: Finding ways to ensure fair competition while still benefiting from China's advancements.

43. India to send new defence attachés to several missions in Africa

News:

- In a sign of expanding focus on military diplomacy, India is set to send defence attachés (DA) to a number of its missions in Africa for the first time, sources here have confirmed.

Prelims Takeaway

- Map based question
- Red Sea

Key highlights

- The move is part of a larger adjustment of the DA in Indian missions scattered across continents and regions and is being implemented as India deals with dynamic situations in **Indo-Pacific, Red Sea-Indian Ocean and Eurasia**
- Apart from the four countries in Africa, the Indian embassy in Poland is scheduled to get a new DA.
- At present the DA in the Indian embassy in the **Czech Republic concurrently serves for the Indian mission in Warsaw.**
- The readjustment in the post of DA in multiple regions is part of India's evolving requirements that stretch from defense production and cooperation to dealing with crisis situations that hinge on urgent mobilization.
- Similar new appointments and changes in the post of DA are also expected **to take place in the Indian missions in the United Kingdom, Russia, Philippines, Armenia.**
- While the Philippines and Armenia will host Indian DA for the first time, in case of Russia, the number of attachés is expected to be reduced.

44. India shifts its Myanmar staff to Yangon over conflict

News: Indian consulate in Sittwe relocates staff in view of situation in Myanmar's Rakhine state, says MEA

Key Highlights:

- In view of the ongoing conflict between the military junta of Myanmar and the **Ethnic Armed Organisations (EAOs)** India has 'temporarily moved' the staff from its consulate in the port city of Sittwe in the Rakhine province, stated by MEA.
- **Karen National Union**, an ethnic minority armed group claim to have seized the last remaining military base in the southeastern town of **Myawaddy**.

Prelims Takeaway

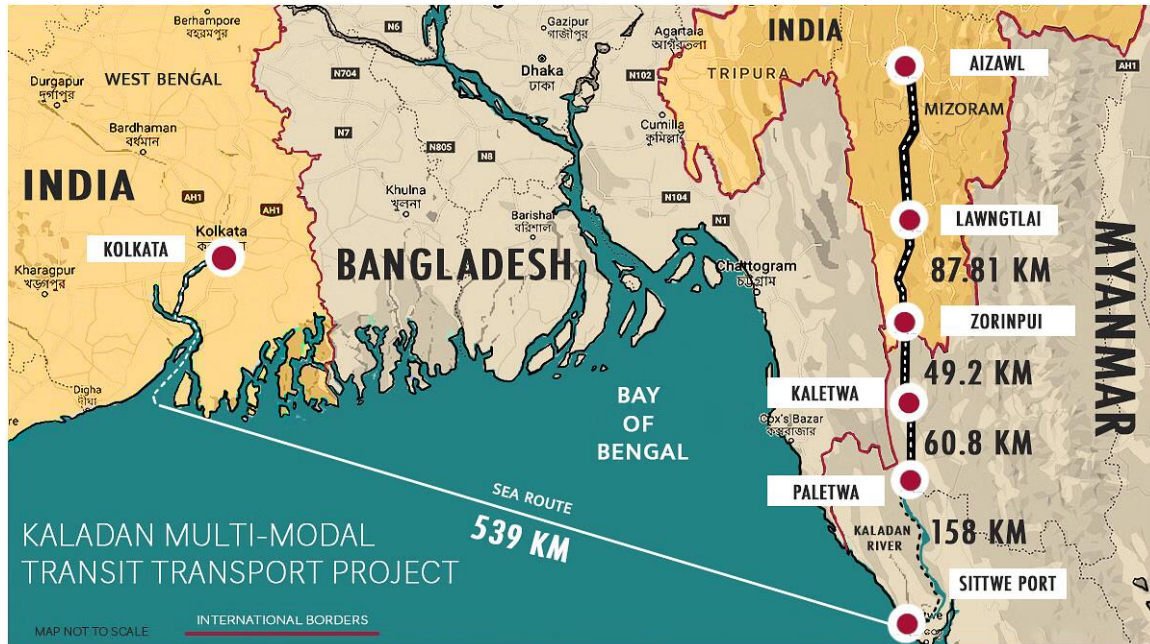
- Imbax
- Kaladan

India Myanmar Relations:

Myanmar is an important neighbour of India which has

- Geopolitical Importance as it is **the Gateway to Southeast Asia:**
 - Myanmar serves as a land bridge connecting South Asia to Southeast Asia.
- The proximity of Myanmar to India's northeastern states establishes a strategic link and is important for regional connectivity.
- India and Myanmar share maritime boundary in the Bay of Bengal which gives opportunities for maritime cooperation in fishing and navigation
- India's active engagement with Myanmar is important to counter China's growing influence in the region.
- India ranks as **Myanmar's fifth-largest trading partner**, registering bilateral trade at USD 1.03 billion in 2021-22

- **Kaladan Multimodal Transit Transport Project:** which aims to connect the North eastern states to the seaport of Kolkata via Sittwe port in Myanmar by sea.



- India-Myanmar Bilateral Army Exercise (**IMBAX**) is building and promoting closer relations between the two armies.
- India has extended **USD 2 billion in soft loans**. India has provided Myanmar with developmental assistance in the areas it wants rather than be prescriptive.
- India and Myanmar share cultural ties in terms of Buddhist heritage and shared history of British colonialism.
- People of Indian Origin constitute about **4 %** of the total population in Myanmar.

45. India welcomes steps by Taliban to restore assets to minorities

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

News: India has welcomed the Taliban's initiative to restore property to the minority Sikhs and Hindus of Afghanistan.

Key Highlights:

- In a bid to cleanse Afghanistan's major cities the 'Justice Ministry' of the Taliban administration in Kabul recently, has initiated a **large scale crackdown**
- Narender Singh Khalsa, a Sikh leader from Afghanistan, has returned to Kabul after the Taliban assured him and other members of the minority religious communities that their property rights would be safeguarded.
- With steps like **restoring property** of the Sikhs, Hindus and also of other Afghans who lost property in the decades beginning with the Soviet occupation and the warlord culture
- Taliban want to be seen as **rational actors and convey a message to the world at large which has so far blacklisted them**

India - Afghanistan Relations:

- India Afghanistan share rich historical ties with Afghanistan, **since the Harrappan Civilisation**.
- The Mountain passes of Hindu-Kush region have been the gateway to Indian subcontinent throughout Centuries.
- In the current scenario India seeks a cordial relationship with Afghanistan as an important regional **partner in South Asia**, and is committed to supporting Afghanistan's efforts towards peace, stability, and development.
- **It has financed and built significant projects such as:**

Prelims Takeaway

- Delaram Zaranj Highway
- Selma/hajigak

- **Delaram Zaranj Highway**, Parliament Building, India Afghanistan Friendship Dam/Selma Dam
- **Air Freight Corridor for Afghan Exports**, Transmission lines to Kabul, 800MW power plant and 6 MT steel plant by SAIL.
- However, with the revival of Taliban regime India's major concern is Revival of terrorism (Haqqani network) as well as Threat to financial and strategic investments in Afghanistan.
- However, the people of Afghanistan have immense respect for Indians, which is why Taliban has not shied away from garnering support from Indian Government
- **India has been Training Afghan diplomats** of the new regime in New Delhi, India has also committed over 3 billion US\$ for development efforts in Afghanistan.



46. Iran – Israel Issues and India

News:

- On April 14, **Iran launched hundreds of drones and missiles towards Israel**, in retaliation for an Israeli attack on its consulate that occurred in Damascus, Syria, two weeks ago.
- While **Israel is not believed to have suffered any major damage early on**, Iran warned that a military move from Israel would be met with a much larger response.

Prelims Takeaway

- Map based questions

India's stand in Iran-Israel tension

- India called for de-escalation in the aftermath of Iran's retaliatory strike against Israel.
- This approach is in contrast to India's instant expression of solidarity with Israel at the highest political level immediately after the October 7 terror attack by Hamas.

Significance of India's approach on recent Iran-Israel tension

- India is **navigating a tricky situation**.
- There's a big difference between a fight between two countries (like Iran and Israel) and terrorism by a non-state group (like Hamas).
- India wants both sides to calm down (show restraint) because it has good relations with both countries.
- If they see India as favoring one side, it could hurt peace in the region.

Complexity of the region's politics

- India's call for de-escalation between Israel and Iran is about recognising the complexity of the region's politics.
- Inter-state and intra-state conflicts in the Middle East are deep and pervasive.
- **India will have to forever balance** its engagement with key regional actors — Egypt, Iran, Israel, Qatar, Turkey, Saudi Arabia, and the UAE.
- Orientation and interests of these countries are different and often in conflict.

Shift in India's approach towards this region

- In the past, India's regional policy was framed in terms of contradictions between the West and the Middle East.
- E.g., India's steps to manage the fallout of US-Iran tensions.
- Today, Delhi pays attention to the region's internal contradictions.
- E.g., India's stand on Iran – Israel issue, Israel-Palestine issue etc.
- Religion can't be the dominant factor in dealing with the Middle East

- India's call for de-escalation also underlines that religion and associated vote-bank politics can't be the dominant factor in dealing with the Middle East.

India's expanding footprints in the Middle East

- India's ties with the Gulf go beyond just oil and manpower.
- Countries like Saudi Arabia and UAE are now key economic and political partners for India.
- This cooperation is broader than just trade, influencing the entire Indian Ocean region.
- These partnerships are essential for India's plan to create the India Middle East Europe Corridor (IMEC), a major part of its international strategy.

47. Hunger Crisis in Gaza

News:

- The food production system has been completely obliterated, **and the lack of entry of emergency aid within a short time has created a free fall,** a United Nations official said.

Key highlights

- A formal famine declaration comes from a group working with the UN i.e **The Integrated Food Security Phase Classification (IPC)**.
- There are three main conditions:
 - severe food shortages affecting many households
 - malnutrition in a large portion of children,
 - A high death rate.
- Since its **inception in 2004**, IPC has declared two famines—first, in Somalia in 2011 due to decades of conflict, drought and collapsed economy. Another in South Sudan due to years of drought, civil war destroying the country's economy, and aid blocked by rebel forces.
- Gaza was already subjected to Israeli blockade, backed by Egypt before the ongoing war.
- Under which, humanitarian aid, including food and commercial imports, was tightly restricted.
- But after the Hamas attack, Israel imposed a siege and imposed stricter restrictions by stopping anything it believes could potentially benefit Hamas from entering.
- It also blocked commercial imports of food that had filled Gaza's shops and markets, bombed Gaza's port and territorial farms and restricted fishing.
- Displacement due to airstrikes and fighting plus the destruction of businesses and a surge in prices, has made it hard for families to feed themselves.

Prelims Takeaway

- Map based questions
- The Integrated Food Security Phase Classification (IPC).

48. Ecuador - international laws and India

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

News:

- Ecuador's raid recently, at the Mexico embassy in **Quito** is a serious violation of the Vienna Convention on diplomatic relations on which nations operate their missions in foreign lands.
- The raid was to arrest a former Vice-President in the administration of leftist and former President, who has been sentenced for corruption.
- Mexico, said its sovereignty has been breached, has now moved the International Court of Justice in the Netherlands, demanding the expulsion of Ecuador from the UN.

India -Ecuador Relations:

- **Establishment:** Diplomatic relations between India and Ecuador were formally established on 19 September 1969, laying the foundation for a sustained diplomatic engagement.

Economic Collaboration:

- **Trade and Investment:** Bilateral economic collaboration has been positive .
- Both countries are actively exploring opportunities to improve trade with an emphasis on mutual benefit.

Prelims Takeaway

- ICJ
- India- South America

- During 2021, Ecuador had a large net trade with India in the exports of **Mineral Products (\$569M)**, Wood Products (\$64.5M), and Precious Metals (\$17.3M). During 2021, India had a large net trade with Ecuador in the exports of Transportation (\$93.9M), Chemical Products (\$92.1M), and Metals (\$44.1M).

Key Agreements:

- **Memoranda of Understanding (MoUs):** The signing of MoUs across various sectors, including traditional medicine, health, and pharmaceuticals, reflects deepening of the bilateral relationship and a shared vision for cooperation.
- **Renewable Energy:**
- **International Solar Alliance (ISA):** Both India and Ecuador are active members of the International Solar Alliance, with a joint commitment to renewable energy and sustainable development practices.
- **South-South Cooperation:** The India-Ecuador partnership contributes significantly to the concept of South-South cooperation, as both nations actively engage in forums and alliances advocating for the interests of developing countries on the global stage.

International Court of Justice:

- The ICJ, also known as the **World Court**, is the principal judicial organ of the United Nations (UN).
- It was **established in June 1945** by the **Charter of the UN** and began work in April 1946.
- The seat of the Court is at the Peace Palace in **The Hague (Netherlands)**.
- It is one of the six principal organs of the UN.
- The hearings of the ICJ are always public.
- Official Languages: **French and English**
- Powers and Functions: The Court entertains two types of cases:
 - First, it can act as a dispute settlement body between two member States in what are called “contentious cases.”
 - Second, it can accept requests to issue an advisory opinion on a legal question referred to it by a UN body or specialized agency.
- It consists of **15 judges**, all from different countries, who are elected to nine-year terms by majority votes in the UN General Assembly and the Security Council.
- The judges, **one-third of whom are elected every three years**, are eligible for reelection.

49. Solomon Islands

News:

- Solomon Islanders will head to the polls recently, voting in an election that promises to bolster or blunt China’s regional ambitions.

Prelims Takeaway

- Solomon Islands
- Quad

- The archipelago, one of the world's least-developed countries, is the unlikely focal point of a diplomatic scramble pitting China against Western rivals.

Solomon Islands:

- Solomon Islands is a nation in **Melanesia**, east of Papua New Guinea, comprising more than 990 islands.
- Its capital is Honiara, located on the island of Guadalcanal.
- The Solomon Islands comprises six major Island groups- **Choiseul, the Shortland Islands, the New Georgia Islands, Santa Isabel, the Russell Islands, the Florida Islands**



- The former **British colony** gained independence in 1978, establishing diplomatic relations with Taiwan as one of its earliest foreign partners.
- It consists of a double chain of volcanic islands and coral atolls in Melanesia.
- It is an important chain of Islands in the Pacific Ocean. In the Quad meeting held recently, the US has said that it is committed to a “free and open, connected, prosperous, secure, and resilient” Indo-Pacific region.

50. India - Iran Relations and Detained crew

News:

- **The External Affairs Minister** says he told the Foreign Ministers of both Iran and Israel to de-escalate tensions, as New Delhi takes a more neutral position on Iranian strikes given India's strong strategic ties with both West Asian countries.

Prelims Takeaway

- Farzad -B Gas Field
- North-south Corridor

India Iran Relations:

- Iran has emerged as India's most viable transit option for trade with Central Asia and Russia.
- India, Russia and Iran signed an agreement in 2000 for sending Indian Cargo to Russia via Iran through a '**North-South Corridor**'.
- India lined up USD 20 billion as investment in oil & gas, petrochemical and fertiliser projects in Iran. In May 2016, PM Modi visited Iran, where the historic Chabahar port agreement was signed.
- India-Iran bilateral trade during the FY 2022-23 was **\$2.33 billion**, registering a growth of 21.76% YOY.
- **Farzad-B Gas Field:** India has expressed interest in developing the Farzad-B gas field, signalling a commitment to energy cooperation.
- India's dependency on Iranian oil has been a point of contention, especially considering the fluctuating geopolitical dynamics in the region.
- Balancing energy needs with geopolitical pressures, such as those from the United States, poses a challenge to India's relationship with Iran

51. Sri Lanka govt. to resume talks with bond holders soon, The Hindu

Prelims Takeaway

- Paris Club

News:

- India- Sri Lanka ties

- Sri Lanka has already reached an agreement with its bilateral creditors, including **India and Paris Club members**.
- The Sri Lankan government, which is trying to finalise a **debt treatment plan** with its private creditors, will resume talks with them in London after the World Bank's Spring Meetings.
- In its latest development update on Sri Lanka, the World Bank has noted that Sri Lanka's economy has shown "early signs of stabilisation" with improved fiscal and external balances.

Paris Club Members:

- The Paris Club is an **informal group** of creditor countries that work together to support nations facing financial difficulties, chiefly those struggling to pay off debts.
- Established in **1956**, headquartered in **Paris**
- The group aims to help stabilise the macroeconomic and financial situation of countries and promote sustainable economic growth.
- India is among the observers in the Paris Club

India's Bilateral Negotiation with Sri Lanka

- In Sri Lanka's case, India, China, and Japan are the largest bilateral creditors.
- Sri Lanka's debt to India is **12%** of its total Debt.
- India launched its own bilateral negotiations with Sri Lanka in January 2023.
- India plans to allow Sri Lanka up to **12 years** to repay its debt to help ease the financial burden on the island-nation, which is **\$1.6 billion**.

52. Taiwan Strait

News:

- The U.S. Navy's **Poseidon** Aircraft transited the **Taiwan Strait** in international airspace.

Prelims Takeaway

- Taiwan Strait
- South China Sea

Taiwan Strait:

- The strait is 160 kilometers wide and divides China from the self-governing island democracy Taiwan.
- It is also called **Formosa Strait**, the Strait containing **Pescadores Islands** under the control of Taiwan.
- The chief ports are **Amoy** in mainland China and **Kao-hsiung** in Taiwan.
- Although it lies in international waters, China considers the passage of foreign military aircraft and ships through it a challenge to its sovereignty.
- China claims the island of Taiwan, threatening to defend it by force if necessary despite U.S. military support for the island.

53. Portuguese Citizenship

News:

- MEA could provide relief for people from erstwhile Portuguese territories in India (**Goa and Daman & Diu**), whose Indian passports were revoked after acquiring Portuguese citizenship.
- The Ministry of External Affairs has instructed passport authorities in the country to mandatorily issue a "**revocation order**".
- According to **Portuguese law**, it offers those born in Goa before December 19, 1961 the day Goa was liberated from Portuguese rule and two future generations the option of registering as Portuguese citizens.

Prelims Takeaway

- Portuguese Rule
- Overseas Citizens of India

Portuguese in India:

- Portuguese India was a colonial state within the Indian Subcontinent from 1505 to 1961.
- The Portuguese established trading posts and forts along the Indian coastline, with a significant presence in Goa, Daman, Diu, Dadra and Nagar Haveli.
- Their influence was limited, unlike the English who expanded their control over larger parts of India.
- In 1961, the Indian government annexed the Portuguese territories, marking the end of Portuguese rule in India.

- In 1843 the capital was shifted to **Panjim, then renamed Nova Goa**, it became the administrative seat of Portuguese India.
- In **December 1961**, the Indian military initiated an invasion of Goa.
- marked the end of **450 years** of Portuguese rule in Goa
- Merger of the Union Territories of Daman and Diu (D&D) and Dadra and Nagar Haveli (DNH), also erstwhile Portuguese territories, happened in 2019.

54. India is a top-tier security partner: Australia

News:

- India is a top-tier security partner for Australia, stated its new National Defence Strategy-2024 released last week
- **Through the Comprehensive Strategic Partnership between Australia and India**, the government is continuing to prioritise practical and tangible cooperation that directly contributes to Indo-Pacific stability.

Prelims Takeaway

- COP26 meeting
- Mutual Recognition of Educational Qualifications

Key highlights

- The 2024 Integrated Investment Programme (IIP) was also released which sets out the specific defence capabilities Australia will invest in to give effect to the NDS.
- Australia will also invest in deepening our defence relationships with partners across Southeast Asia and the Pacific, as well as in the Indian Ocean and North Asia regions, the NDS said.

India- Australia bilateral relation

- India and Australia's relationship goes back a long way, starting with a trade office established in Sydney even before India's independence.
- There have been ups and downs, like tensions after India's nuclear tests in 1998.
- Both countries share democratic values, traditions from the British Commonwealth, and a growing economic partnership.
- There are also strong **cultural connections, with a large Indian-origin population** in Australia.
- In 2020, the countries upgraded their partnership to a "**Comprehensive Strategic Partnership**."
- This involves close cooperation on issues like climate change (COP26 meeting) and defense (joint military exercises and agreements).
- The Mechanism for Mutual Recognition of Educational Qualifications (MREQ) was signed in March 2023. This will facilitate mobility of students between India and Australia.

55. Mauritius yet to ratify tax treaty protocol

News:

- The Mauritius Revenue Authority (MRA) said last week that the protocol amending the Mauritius-India Double Taxation Avoidance Agreement (DTAA) to comply with the base erosion and profit shifting minimum standards, is yet to be ratified.
- The MRA said the protocol will amend the DTAA once it is ratified and notified by both countries.
- "The protocol shall come into force on the date of the later of these notifications.
- Prior to the ratification of the protocol, stakeholders will be provided with clarificatory information on the amendments being brought to the Mauritius-India DTAA
- India and Mauritius signed an amendment to the DTAA on March 7 and included a principal purpose test in the pact in order to ensure that treaty benefits are granted only for transactions with a bona fide purpose.

Prelims Takeaway

- Map Based questions
- Double Tax Avoidance Agreement

Double Tax Avoidance Agreement (DTAA) Between India and Mauritius:

- Governments of India and Mauritius came to a unanimous decision in 1983 regarding the avoidance of double taxation.
- This is the Double Tax Avoidance Agreement or DTAA between India and Mauritius.

- The conventions of DTAA signed between India and Mauritius will be applicable to residents of one or both contracting states.

Objective:

- To promote bilateral economic relations and investment between India and Mauritius by providing tax certainty and reducing tax barriers.

Impact of the Amendment:

- Following the amendment, there were concerns that foreign portfolio investments coming via Mauritius would face increased scrutiny by tax authorities.
- Also, there were apprehensions that past investments could be covered by the amended protocol.
- This led to India's benchmark equity indices Sensex and Nifty falling by 1 per cent on April 12, 2024.

56. SCO Defence Ministers' meeting in Kazakhstan

News:

- The Indian delegation went to **Astana, Kazakhstan** for the Annual Meeting of the Defence Ministers' of **Shanghai Cooperation Organisation (SCO)** Member States.
- The meeting will review the **regional security issues** within the SCO, including the defense cooperation initiatives.
- India will hold meetings with Defence Ministers of the friendly countries of the SCO to discuss issues of bilateral defense cooperation.

| Prelims Takeaway |
|--|
| <ul style="list-style-type: none"> • SCO • Shanghai Five |

Shanghai Cooperation Organisation:

- The Shanghai Cooperation Organisation is an organization that focuses on political, economic, international security, and defense matters in **Eurasia**.
- It holds the distinction of being the largest regional organization in terms of geographic coverage and population.
- It emerged as a successor to the **Shanghai Five**, established in 1996 by China, Kazakhstan, Kyrgyzstan, Russia, and Tajikistan.
- These countries, along with Uzbekistan, came together on 15 June 2001 in Shanghai to announce the formation of a new organization aimed at deepening political and economic cooperation.
- Over time, the organization expanded its membership to include **eight states**, with India and Pakistan joining in 2017.

Significance of the SCO-

- **Cooperation on Security:** It addresses regional issues like human trafficking, weapons trafficking, and terrorism through initiatives like the Regional Anti-Terrorist Structure (RATS).
- **Military Activities:** It conducts joint military exercises to enhance cooperation and coordination against terrorism and external threats.
- **Economic Cooperation:** It aims to enhance economic cooperation among member states.
- **Cultural Cooperation:** Culture ministers of the Shanghai Cooperation Organisation meet regularly to strengthen cultural cooperation and exchange.

57. G-7 Ministers agree to phase out coal-fired power plants by 2030s

News:

- G-7 Energy Ministers have agreed a time frame for phasing out **coal-fired power plants**, as the UN warned "excuses" for failing to take bold actions on climate change were "not acceptable".

| Prelims Takeaway |
|--|
| <ul style="list-style-type: none"> • G7 • COP-28 |

Key Highlights:

- The Group of Seven agreement is the first big political session since the world pledged at the UN's COP-28 climate summit to transition away from coal, oil and gas.
- Its timeline is consistent with keeping a limit of 1.5°C temperature rise within reach, in line with countries' net zero pathway.

G7 Grouping:

- An **informal grouping** of seven industrialised democracies consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
- It was established to discuss and cooperate on issues of **mutual interest**, such as global economic governance, international security, and **energy policy**.
- The G7 operates **without a formal charter or secretariat**, and its presidency rotates among member countries each year.
- The G7 originated after the **1973 oil crisis**, which led to a global economic recession and highlighted the need for greater international economic cooperation.

GOVERNMENT SCHEMES

58. Suvidha portal

News:

- The Election Commission on Sunday said its Suvidha portal has received over 73,000 applications since the Lok Sabha polls were announced, seeking permission for various campaigning activities.

Prelims Takeaway

- Suvidha Portal
- ECI

Suvidha Portal

- It is **developed by the Election Commission of India (ECI)** to ensure a level playing field upholding the democratic principles of free, fair and transparent elections.
- It streamlined the process of obtaining and acting upon requests for permissions and facilities from political parties and candidates during the election period.
- It caters to a diverse range of permission requests transparently on the **First in First Out principle**.
- Political parties and candidates can seamlessly submit permission requests online from anywhere, at any time.
- Offline submission options are available.
- It caters to permissions for organising rallies, opening temporary party offices, door-to-door canvassing, video vans, helicopters, obtaining vehicle permits, distributing pamphlets.
- It is supported by a robust IT platform, managed by nodal officers across various state departments.
- It also has a companion app that enables applicants to track the status of their requests in real time.
- Furthermore, the permission data available on the portal serves as a valuable resource for scrutinising election expenditures, contributing to greater accountability and integrity in the electoral process.

59. CDP-SURAKSHA platform

News:

- government has come up with a new platform to disburse subsidies to horticulture farmers under the Cluster Development Programme (CDP)
- It is the Centre's initiative to promote horticulture crops.
- The platform is known as CDP-SURAKSHA.

Prelims Takeaway

- CDP-SURAKSHA
- GVA

Key highlights

- The move seeks to push the growth of India's horticulture sector, which contributes nearly one-third to the agriculture gross value addition (GVA)
 - making a substantial contribution to the Indian economy.
- The total production of horticulture crops has also spiked in recent years.
- While in 2010-11, it stood at 240.53 million tonnes, the number rose to 334.60 million tonnes in 2020-21.

- SURAKSHA (System for Unified Resource Allocation, Knowledge, and Secure Horticulture Assistance) is essentially a digital platform.
- The platform will allow an instant disbursement of subsidies to farmers in their bank account by utilising the e-RUPI voucher from the National Payments Corporation of India (NPCI).
- The CDP-SURAKSHA has features such as database integration with PM-KISAN, cloud-based server space from NIC, UIDAI validation, eRUPI integration, local government directory (LGD), content management system, geotagging, and geo-fencing.

60. National Curriculum for Early Childhood Care and Education 2024 'Aadharshila'

News:

- National Curriculum for Early Childhood Care and Education 2024 titled 'Aadharshila' was released by Ministry of Women and Child Development (MWCD)

Prelims Takeaway

- Aadharshila
- Anganwadis

Highlights:

- The Union government has released this curriculum to teach children aged three to six years.
- Children who have **received early childhood education** are expected to do much **better in school and are psychosocially better adapted** in comparison to those who did not receive any formal education before six years of age.

Aadharshila:

- The curriculum includes a **mix of academic and extracurricular activities** like storytelling, arts and crafts, exploring, free play, conversation etc.
- This curriculum will give an impetus to **pre-school learning in children aged three to six**
- The curriculum will help children **to easily transition into Grade 1** by developing skills.
- This framework will serve as a **base for States to develop their own culturally appropriate curriculums** seen as a solution to tackle challenges of children.

ECONOMY

61. India must invest more in education, health to tap demographic dividend: IMF

News:

- **India should focus on investing heavily in education and health** to ensure that its growing young population is adequately employed the International Monetary Fund (IMF) has suggested.

Prelims Takeaway

- IMF
- Reports by IMF and World Bank

Key highlights

- The World Bank, the IMF's 'twin' multilateral institution, had said that India and other South Asian countries were squandering their demographic dividend.
- The labour force needs to have the right skills, competing with AI and other such challenges
- The IMF has projected a growth rate of 6.8% for India's economy in FY2024/25 notwithstanding the high rate of unemployment among youth
 - Which according to some estimates was just above 40% in 2022-23.
- Growth in India was led by public investment and private consumption
- While public capex spending (for example infrastructure) had had a "very beneficial" impact on growth
- The issue was whether it had crowded in private investment, observed the IMF official.

INTERNAL SECURITY

62. First batch of BrahMos supersonic missiles to Philippines

News:

- India delivered the first batch of BrahMos supersonic cruise missiles to the Philippines.
- The Philippines concluded a **\$375-million deal** with India for an anti-ship variant of the BrahMos becoming the **first export customer** for the joint venture missile between India and Russia.

Prelims Takeaway

- BrahMos
- Philippines

Highlights:

- The first batch was delivered aboard a transport aircraft of the **Indian Air Force** which landed in the **Philippines**
- The delivery comes amid the showdown between the Philippines and China in the South China Sea and will significantly augment the defensive posture of the Philippines armed forces once the systems are operationalised.

BrahMos:

- BrahMos is a long-range **nuclear-capable supersonic cruise** missile system.
- It possesses the capability to be deployed from several platforms, including air, sea, and land.
- It is capable of traveling at speeds of up to **Mach 3**, and it is one of the world's fastest cruise missiles.
- It was developed by BrahMos Aerospace and tested for the first time in **2001**.
- BrahMos is named after the rivers Brahmaputra and Moskva (Russia). BrahMos is the potent offensive missile weapon system already inducted into the Armed Forces.

BrahMos Aerospace:

- Following the Gulf War of the 1990s, it became clear that the country needed a cruise missile system.
- As a result, in 1998, India and Russia signed an intergovernmental agreement in Moscow.
- It paved the way for the formation of BrahMos Aerospace, a joint venture between India's **Defence Research and Development Organization (DRDO)** and Russia's **NPO Mashinostroyeniya (NPOM)**.

India's Relations with Philippines:

- India and the Philippines are two democratic countries in the Indo-Pacific region that share a common approach towards the **Indo-Pacific**, emphasizing the importance of a free, open, and stable region.
- Political Relations: India and the Philippines formally established diplomatic relations on 26 November 1949, shortly after both countries gained independence. (Philippines in 1946 and India in 1947).
- When India launched the Look East Policy and intensified partnership with Association of Southeast Asian Nations (ASEAN) in 1992, it also resulted in intensified relations with the Philippines both bilaterally and in the regional context.
- With the **Act East Policy (2014)**, the relationship with the Philippines has diversified further into political-security; trade and industry, etc.
- Economic Relations: India is currently the Philippines' fifteenth largest trading partner, with trade worth approximately **USD 3 billion** in 2022.
- Also, Philippines has been a net importer in goods trade with India

63. Efforts to reconnect with Naxalite Regions

News:

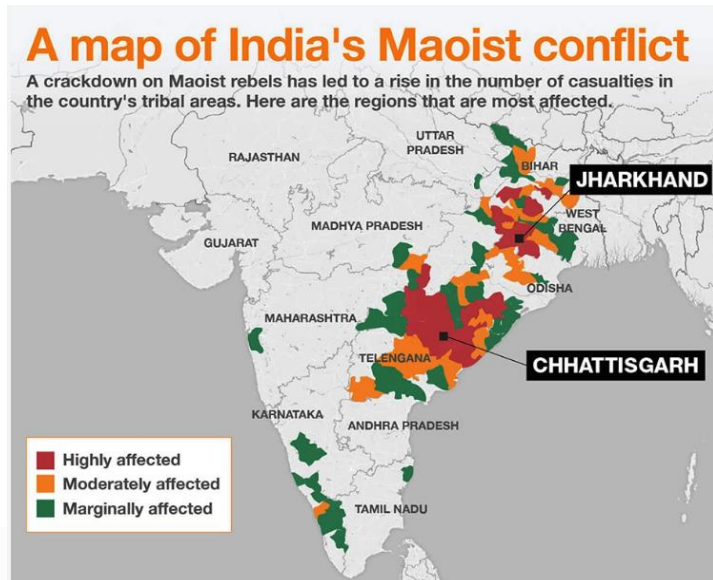
- Security forces dealt a decisive blow to the Maoists in Chhattisgarh- Maharashtra border.
- A joint force of the **BSF and district reserve guard** killed 29 of them, including three senior commanders.

Prelims Takeaway

- LWE
- SAMADHAN

Left Wing Extremism:

- Left-wing extremism (LWE), also known as left-wing terrorism refers to political ideologies and groups that advocate for societal and political change through revolutionary means.
- The LWE movement in India originated in a 1967 uprising in Naxalbari, West Bengal.
- The 2006 **D Bandopadhyay Committee** identified governance gaps and **Social discrimination** against tribals in economic, political, and cultural spheres as the primary causes of Naxalism's proliferation.
- The **failure of land reforms** and land redistribution after independence is another cause for rise in Extremism.
- **Forced Displacements** by projects of mining, irrigation and power projects without adequate arrangements for rehabilitation.
- Non-regularisation of traditional land rights under FRA, 2006, rejections of land grants to tribals.

**Government Initiatives:**

- **'National Policy and Action Plan to address Left Wing Extremism 2015:** comprehensive approach that involves various facets of governance, security, and development.
- **Juvenile Justice (Care and Protection of Children) Act, 2015:** The Act plays a crucial role in protecting children affected by LWE.
- **Solution SAMADHAN:** It is the one-stop solution for the LWE problem. short-term policy to long-term policy formulated at different levels.

GS III**INTERNAL SECURITY****64. In an all-time high, defence exports cross ₹21,000 crore****News:**

- **India's defence exports crossed ₹21,000 crore** for the first time, Defence Minister said.
- The figures indicated that defence exports had grown by 31 times in the past 10 years compared with FY 2013-14, the Defence Ministry said.
- "Delighted to inform that defence exports have scaled to unprecedented heights and crossed ₹21,000-crore mark for the first time in the history of Independent India

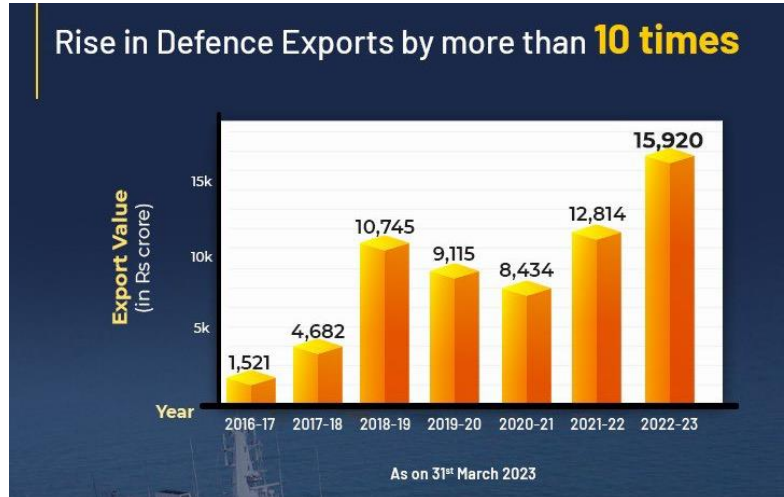
Prelims Takeaway

- Akash missile
- Dhruv helicopter

Major Exports:

- Defence exports have reached the level of ₹21,083 crore in the financial year 2023-24 which is a spectacular growth of 32.5% over the previous fiscal."
- India has exported **BrahMos cruise missiles** to countries like Vietnam, the Philippines, and Indonesia.
- The **Dhruv helicopter** is a multi-role helicopter developed by Hindustan Aeronautics Limited (HAL).
- It has been exported to several countries, including **Nepal, Maldives, Ecuador, and Peru.**

- The Akash missile system is a surface-to-air missile system developed by the Defense Research and Development Organization (DRDO) of India.
- India has exported sonar systems to several countries, including Vietnam and Myanmar.
- India has exported bulletproof jackets to several countries, including Nepal, UAE, and Malaysia.
- These jackets are used by military and law enforcement agencies to protect their personnel from gunfire and shrapnel.



65. Nuclear power key to India's development, says report

News:

- **For India to be a developed country by 2047** and be on track to achieve net zero — or effectively **zero carbon dioxide emissions by 2070**
- it must significantly prioritise investments in nuclear energy and expand related infrastructure, says a study by academics at the Indian Institute of Management, Ahmedabad.

Prelims Takeaway

- Uranium
- Nuclear fission

Key Highlights

- To put in perspective, it means **nuclear power contributing 4% of India's total energy by 2030 and sharply rising to 30% by 2050.**
- In the same scenario, the share of solar power falls from 42% in 2030 to 30% in 2050.

Uranium availability

- Currently, figures from the Central Electricity Authority say **solar energy accounts for 16% of India's installed generation capacity and coal 49%.**
- To achieve these idealistic figures for nuclear energy would require a doubling of investments as well as the assumption that uranium
- a critical fuel but restricted by international embargo, is available in necessary quantities.
- Coal would likely be the "backbone" of the Indian energy system and if the country has to phase down coal in the next three decades
- it would need to build adequate infrastructure for alternative sources such as nuclear power, in addition to flexible grid infrastructure and storage to support the integration of renewable energy.

ENVIRONMENT

66. IMD warns of heatwave spells

News:

- The India Meteorological Department (IMD) has forecast a harsh and arid summer over a majority of regions of the country during April- June, with a high probability of heatwave episodes lasting as long as 10 to 20 days during the period.

Prelims Takeaway

- HEAT WAVES
- IMD

Heat Waves in India

- Heat waves are stretches of unusually hot weather.
- They typically hit India between March and June, sometimes lasting into July.
- Northern India experiences around five or six heat waves a year.

- Heat waves are declared when temperatures reach specific thresholds:
- Plains: 40°C (104°F) or higher
- Hills: 30°C (86°F) or higher
- The severity of a heat wave is determined by how much temperatures exceed normal levels or by how high they actually climb.
- Heat waves can be dangerous because they make it hard for the body to regulate temperature, leading to health problems like cramps, exhaustion, and heatstroke.

67. T.N. accuses Centre of delaying disaster relief funds

News:

- Tamil Nadu filed a suit in the Supreme Court accusing the Union government of treating the people of the State in delaying the release of disaster relief funds of nearly ₹38,000 crore sought by Chief Minister

Prelims Takeaway

- Michaung
- cyclone

Key highlight

- It is to help tide over the **twin calamities of Cyclone Michaung and unprecedented floods**.
- Tamil Nadu's suit follows recent suits by Kerala and Karnataka in the Supreme Court.
- Kerala has accused the Centre of arbitrarily interfering in its net borrowing limits, pushing the State to the brink of a financial emergency.
- Karnataka has moved the Supreme Court for the release of drought relief under the National Disaster Response Fund.

Cyclone Michaung

- The cyclone developed from a **low pressure area in the southwest Bay of Bengal**.
- It gradually intensified into a deep depression, a cyclonic storm, and finally a super-cyclonic storm.
- They were aided by warm sea surface temperatures and the Madden-Julian oscillation, a weather anomaly that influences rainfall patterns.
- It moved northward towards the **Andhra Pradesh coast, while bringing heavy rain and strong winds to north Tamil Nadu**.
- It made landfall near Bapatla district, and weakened into a depression over land.
- **The name Michaung was suggested by Myanmar** symbolises strength and resilience following the list of names prepared by World Metrological Organisation and the United Nations Economic and Social Commission for the Bay of Bengal and the Arabian Sea.

68. India rejects report on abusive conditions at shrimp hatcheries

News:

- India, the biggest supplier of shrimp, U.S.'s favourite seafood, has strongly refuted allegations of human rights and environmental abuses raised by a Chicago-based human rights group.

Prelims Takeaway

- Shrimp cultivation
- Blue economy

Key highlights

- In 2022-23, India's seafood exports stood at \$8.09 billion, or ₹64,000 crore, and shrimps accounted for a bulk of these exports at \$5.6 billion.
- India has emerged as one of the world's largest shrimp exporters and its share in the U.S. market has risen from 21%, to 40% in 2022-23, far ahead of rivals such as Thailand, China, Vietnam, and Ecuador.
- the entire value chain for India's shrimp exports is certified by the Marine Products Export Development Authority and there is no scope for such concerns about overseas shipments.

- **State:** About a lakh shrimp farms in Andhra Pradesh alone account for almost 70% of India's shrimp output.
- **Women participation :** Women are reckoned to account for 70% of the eight million-odd jobs in the sector, including two lakh in hatcheries and aquaculture farms, and the rest in processing and freezing units.
- The Ministry is likely to advise exporters to commission independent studies on the working conditions at shrimp farms to dispel the concerns in major markets like the U.S. and the EU.

SAIME initiative

- Under Sustainable Aquaculture In Mangrove Ecosystem (**SAIME**) initiative, farmers have taken up cultivation of shrimp at 30 hectares in West Bengal.
- **The mangrove ecosystem is integrated with shrimp cultivation**, but when fisheries were expanded inwards, the mangrove ecosystem was excluded.
- Fishing, particularly shrimp cultivation, is one of the **key occupations of the people of Sundarbans**, which is a complex network of rivers and low-lying islands that face a tide surge twice a day.

69. Green Steel

News:

- The Union Minister of Steel and **Civil Aviation approved 13 Task Forces for defining the roadmap for 'Green Steel'**.
- The task forces with the involvement of experts and the industry stakeholders have been identified to deliberate on various aspects of 'Green Steel' production, and chalk out action points.

Prelims Takeaway

- National Hydrogen Energy Mission
- Green Steel

Green Steel

- It is the manufacturing of steel **without the use of fossil fuels**.
- This can be done by **using low-carbon energy sources such as hydrogen, coal gasification**, or electricity instead of the traditional carbon-intensive manufacturing route of coal-fired plants.
- It eventually lowers greenhouse gas emissions, cuts costs and improves the quality of steel.
- Low-carbon hydrogen (blue hydrogen and green hydrogen) can help reduce the steel industry's carbon footprint.
- **National Hydrogen Energy Mission (NHM)** capitalizes on hydrogen for a cleaner alternative fuel option.

70. EV subsidy

News:

- Ola Electric, TVS Motor, Bajaj Auto, Hero MotoCorp and Ather Energy have managed to **get certificates from the Ministry of Heavy Industries (MHI)** in a manual format for getting subsidies **under the Electric Mobility Promotion Scheme (EMPS) 2024**.

Prelims Takeaway

- Electric Mobility Promotion Scheme
- Electric vehicle

Key highlights

- Although the online portal for completing the process for availing subsidy under EMPS is not ready, companies are getting a 'go ahead' certificate from the Ministry of Heavy Industries (MHI) in a manual format.
- There is relief among the companies as vehicles manufactured from April 3 will be eligible for the subsidies under the scheme,

Electric Mobility Promotion Scheme (EMPS) 2024:

- The Indian government has introduced the EMPS 2024 to promote the purchase of **electric two-wheelers (e2W) and three-wheelers (e3W)**.
- With a budget of Rs 5 billion, it will replace the FAME-2 scheme and will be effective from April to July 2024, with the possibility of being replaced or extended thereafter.

- The main goal is to increase the adoption of e2Ws and e3Ws while gradually reducing industry reliance on subsidies.
- The scheme **does not cover electric four-wheelers (e4Ws) and e-buses.**

71. Right against adverse effects of climate change part of rights to life, equality: SC

News:

- IN A significant ruling, the Supreme Court has expanded the scope of Articles 14 and 21 to include the “right against the adverse effects of climate change”.

Prelims Takeaway

- Article 21
- Article 14

Key highlights

- “**Article 48A** of the Constitution provides that the State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country.
- **Clause (g) of Article 51A** stipulates that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures.
- **Article 21** recognises the right to life and personal liberty while Article 14 indicates that all persons shall have equality before law and the equal protection of laws.
- These Articles are important sources of the right to a clean environment and the right against the adverse effects of climate change

72. Unnecessarily complex’ GST needs urgent reform: Kelkar

News :

- A key architect of India’s tax reforms and the chairman of the Thirteenth Finance Commission Vijay Kelkar has called upon the country’s next government to undertake urgent reforms in the “unnecessarily complex” Goods and Services Tax (GST) regime,
- such as switching to a single tax rate of 12% and sharing revenues with local governments and municipal corporations.

Prelims Takeaway

- GST
- GST council

Thirteenth Finance Commission Vijay Kelkar recommendation

- mooted the creation of an independent secretariat for the GST Council, the apex-decision making body for the indirect tax rolled out in July 2017 was also mooted,
- as the current arrangement of the Union Government driving the secretariat may be considered problematic by States.
- Setting the tax rates “largely with the objective to maintain revenue neutrality”, as done by India, is “counter-productive

Single GST rate needed

- The genesis of the current GST frauds lies in the very structure of the GST rates, as high rates of GST make it lucrative for the fraudsters to evade taxes
- A single GST rate of 12%, with revenues shared equally with all the tiers of the government and Union Territories, be introduced at the earliest.
- The countries having a single rate and simple GST or VAT laws have been successful in optimising tax revenue and minimising tax disputes
- Of countries with GST or VAT systems, 80% have opted for a single tax rate, including Singapore, New Zealand, the United Arab Emirates, and Japan.
- Stating that a single GST rate is “an unmet goal” in India, he recalled that a single rate of 12% had been recommended by the 13th Finance Commission “very early on in the GST debate”.
- The revolutionary reform of introduction of a single GST rate, with additional non-VAT-able taxes such as carbon taxes on a few demerit goods like hydrocarbons, is now essential

Share GST with local bodies’

- The veteran economist also pleaded for GST revenues to be shared with the third tier of the government created by the 73rd and 74th Amendments to the Constitution.

- Equitable sharing of the GST with the third tier will go a long way in strengthening the fiscal base of our urban governments and also to deepen democracy and governance at the grass root level
- To enable this, we will require a Constitutional amendment, firstly to create the consolidated fund for the third tier of government;

73. 'Black Swan' Events

News:

- Army Chief Gen called upon the force to be always prepared for 'black swan' events and "expect the unexpected" even as he identified technology as the new area for strategic competition among nations.

Prelims Takeaway

- Black swan

Black Swan Events: Unforeseen Shocks with Big Impacts

- A black swan is a rare, unpredictable event that comes as a surprise and has a significant impact on society or the world
- These rare occurrences come as a surprise, leaving a major mark on the world.
- Impact: They disrupt economies, businesses, and our daily lives.
- This concept comes from Nassim Nicholas Taleb's book, "The Black Swan."

Black Swan Effects:

- **Disruption:** Economies, industries, and societies can get thrown into chaos.
- **Uncertainty:** They're tough to predict, making planning a challenge.
- **Vulnerability:** They expose weaknesses in our systems, showing where we need to be more prepared.

74. India's climate policy

News:

- **India's climate policy is informed by its vision of inclusive growth for all-round economic and social development, the eradication of poverty, declining carbon budget, firm adherence to the foundational principles of the UNFCCC, and climate-friendly lifestyles.**

Prelims Takeaway

- UNFCCC

Key highlights

- The 1990s were a time of great change in India and the world, which led to the forging of new policies in many areas, including on the environment.
- **The Rio Summit of 1992 saw the emergence of the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity and Forest Principles.**
- After Rio, the divisions of climate change and biodiversity in India's then Ministry of Environment and Forests came to life slowly and steadily.
- India's long-term low emissions development strategy to the UNFCCC showcases its belief in the multilateral process to achieve net zero by 2070.
- India has been successfully decoupling its economic growth from greenhouse gas (GHG) emissions, resulting in a reduction of the emission intensity of its GDP by 33% between 2005 and 2019.
- This is despite having no binding mitigation obligations under **the UNFCCC in the pre-2020 period.**
- India's solar energy capacity has increased by more than 26 times, and wind energy capacity has more than doubled in the last 10 years.
- It now has the fourth largest installed capacity of wind, and fifth largest solar in the world, achieving a target of 40% installed electric capacity from non-fossil fuels in November 2021, nine years ahead of schedule, and then increasing the target to 50%.
- There is also an unprecedented focus to provide basic services such as pucca housing, round-the-clock electricity, clean drinking water, universal health insurance, and clean cooking gas, which will leave an indelible mark in the fight against climate change.

- India recognises that development and environment are two sides of the same coin, and must be taken together for all-round holistic development.
- India's model of sustainable development must act as a rallying cry for developing countries to counter the narratives presented by the developed world, bringing science and evidence to the forefront of policy-making.

75. Baobab reforestation efforts show rapid impact in Madagascar

News:

- In a groundbreaking conservation endeavor, the **Global Society for the Preservation of Baobabs and Mangroves (GSPBM)** has initiated a mission to rejuvenate the iconic baobab trees.
- These ancient giants, threatened by deforestation and climate change, are receiving a lifeline through seedling transplantation.

Prelims Takeaway

- Baobab
- africa

The Mighty Baobab: A Survivor in Dry Lands

- Found in Africa's hot, dry savannas, the Baobab tree (*Adansonia digitata*) is a champion of survival.
- In Madagascar, these giants are crucial to the island's unique environment.
- With massive trunks and deep roots, they act like giant water tanks, storing water during the rainy season to see them and nearby plants through the harsh droughts.
- Like a cactus, the Baobab is a succulent, soaking up water whenever it rains.
- These impressive trees can live for thousands of years, reaching up to 30 meters tall and an incredible 50 meters around!
- The Baobab even produces a fruit packed with nutrients, one of the most nutritious in the world. Interestingly, it's the only fruit that dries on the branch naturally.

76. Invasive species threaten natural ecosystems

News:

- In a bid to manage the teeming population of chital (spotted deer) in Ross Island (officially known as the Netaji Subhash Chandra Bose Island), the Andaman and Nicobar Islands administration recently sought help from the Wildlife Institute of India.

Prelims Takeaway

- Invasive species of india
- CBD

Key highlights

- Chital, native to mainland India, were introduced to the tiny island (0.3 sq km small) by the British in the early 20th century.
- Having no natural predators or competitors, and being good swimmers, chital swiftly spread across the Andamans.

How invasive species hurt ecosystems and economies:

- They disrupt the food chain and unbalanced ecosystems.
- For example, the African catfish in Keoladeo National Park eats native birds.
- They also cause economic damage.

77. Scientists grasp at straws to save corals from fish

News:

- Scientists around the world have been working for years to **address the decline of coral reef populations.**
- Reef rescue groups in South Florida and the Florida Keys were trying to save coral from rising ocean temperatures.

Prelims Takeaway

- Coral Reef
- Marine Ecosystem

Key highlights

- Besides working to keep existing coral alive, researchers have also been growing new coral in labs and then placing them in the ocean.

- It is challenging to make sure coral grown in a laboratory and placed into the ocean doesn't become fish food.
- The fish eventually lose interest in the coral as it matures, but scientists need to protect the coral in the meantime.
- Stainless steel and PVC pipe barriers have been set up around transplanted coral in the past, but those barriers needed to be cleaned of algae growth and eventually removed.

78. Lake levels of Victoria Nyanza

News:

- The variations in the lake levels of Lake Victoria from 1896 to 1922 and Lake Albert from 1904 to 1922 was observed by scientists as recorded by tide gauge.

Prelims Takeaway

- African Rift Valley
- Lake Victoria

Lake Victoria:

- Lake Victoria, **largest lake in Africa** and chief reservoir of the Nile, lying mainly in Tanzania and Uganda but also bordering Kenya.
- It is the **2nd largest freshwater lake** in the world after Lake Superior in North America.
- Its waters fill a shallow depression in the centre of the great plateau that stretches between the Western and Eastern Rift Valleys.
- Many archipelagos are contained within the lake, as are numerous reefs, often just below the surface of the clear waters.
- Lake Victoria has more than 200 species of fish.



Lake Albert:

- Lake Albert, northernmost of the lakes in the Western Rift Valley, in east-central Africa, on the border between Congo (Kinshasa) and Uganda.
- The Lake was named after Queen Victoria's Husband Albert
- Lake Albert is a shallow body of water, the **Semliki River** brings into the lake the waters of Lake Edward, of the Congo Escarpment, and of the rain-soaked **Ruwenzori Range**, building a large alluvial plain in the process.
- There is a considerable expanse of lowland at the northern end, where the Victoria Nile enters as a sluggish stream in a swampy delta.
- Almost immediately the lake narrows into the **Albert Nile**, through which it supplies water to the **White Nile**. In the west and east, the lake is bordered by forested cliffs and ravines.



79.Center tweaks Green Credit Programme norms; to focus on restoration of ecosystem

News:

- Amid concerns that the Green Credit Programme (GCP) may encourage tree planting for financial gains the Union Environment Ministry— has clarified that primacy must be accorded to restoring ecosystems over mere tree planting.

Prelims Takeaway

- Green Credits
- Greenwashing
- Mission LiFE

Key highlights

- Forest departments of 13 States have offered 387 land parcels of degraded forest land worth nearly 10,983 hectares.
- Applications can be submitted by individuals and companies to Indian Council of Forestry Research and Education (ICFRE) to pay to “restore” these forests.
- The actual afforestation will be carried out by State forest departments.
- Two years after planting and following an evaluation by the ICFRE, each such planted tree could be worth one ‘green credit’.
- These credits can later be claimed by the financing organization
- The credit can be used by these organization in two ways:
 - Used for reporting under environmental, social and governance leadership norms to meet corporate social responsibility (CSR) requirements.

Green Credit:

- Green Credit is an **unit** of incentive which is provided to individuals and entities engaged in activities that deliver a **positive impact on the environment**.
- Green Credit operates under **Green Credit Rules, 2023** which is independent of the carbon credit under **Carbon Credit Trading Scheme 2023**.

Green Credit Programme:

- The Green Credit Initiative was launched by the Prime Minister on the side-lines of **COP 28**.
- It is an initiative under the government's Lifestyle for Environment or Mission LiFE.
- GCP is an **innovative market-based mechanism designed** to incentivize voluntary environmental actions across diverse sectors, by various stakeholders like individuals, communities, private sector industries, and companies.
- This initiative involves creating an inventory of **degraded wastelands**, which can be utilized for planting by individuals and organizations.
- Participants undertaking environmentally positive actions will receive **tradable green credits**.

80. Over 21,000 birds to be culled in Alappuzha

News:

- The Animal Husbandry Department will carry out bird culling operations in the avian **flu-hit regions of Kuttanad in Kerala**.
- “The Centre has notified the **outbreak of disease**.”

Prelims Takeaway

- Influenza
- Avian flu

Avian Influenza:

- Avian influenza, often referred to as bird flu, is a highly contagious viral infection that primarily affects birds, particularly wild birds and domestic poultry.
- Human transmission of avian influenza **occurs occasionally**, but it is difficult to transmit the infection from person to person.
- As per World Health Organisation(WHO), when people do become infected, the mortality rate is about 60%.
- It can range from mild **flu-like symptoms**, including fever, cough, and muscle aches, to severe respiratory issues like pneumonia, difficulty breathing, and even cognitive problems such as altered mental status and seizures.

Avian Influenza and India:

- The initial outbreak of Highly Pathogenic Avian Influenza (HPAI) H5N1 in India occurred in 2006 in Navapur, Maharashtra, and was followed by annual outbreaks.
- **H5N8** was first observed in India in November 2016, mainly affecting wild birds across five states, with **Kerala** reporting the most cases.

- India's approach to controlling Highly Pathogenic Avian Influenza (HPAI) follows a "detect and cull" policy as outlined in the **National Action Plan for Prevention, Control, and Containment of Avian Influenza (2021)**

Influenza:

- HPAI stands for Highly Pathogenic Avian Influenza and LPAI stands for Low Pathogenic Avian Influenza

| Types | A Subtypes | HPAI vs LPAI |
|--|---|--|
| Influenza A (Infects a wide range of animals including birds) | Avian (Can infect humans) H5N1 H7N3 H7N7 H7N9 H9N2 H10N8 | HPAI H5N1 LPAI H5N1 HPAI H5N8 LPAI H5N8 Subtypes can be classified as high path or low path based on the ability of the specific virus strain to kill chickens in the lab setting. |
| Influenza B (Mainly infects humans) | Swine (Can infect humans) H1N1 H1N2 H3N2 | |
| Influenza C (Infects humans and pigs but more rare than types A and B) | Most common human H1N1 H3N2 | |
| Influenza D (Infects cattle) | | |

81. NGT shows concern over chemicals in Chennai waterbodies

News:

- Recently, National Green Tribunal (NGT) took Suo Motu cognisance and has expressed concerns about the **presence of polyfluoroalkyl substances (PFAS) in water bodies of Chennai** based on a study conducted by IIT Madras.

Prelims Takeaway

- Polyfluoroalkyl Substances (PFAS)
- Stockholm Convention

Key Highlights of report

- The report noted a presence of **Polyfluoroalkyl Substances (PFAS) in water bodies**
- The study found out the groundwater near the Perungudi dumpyard contained 2.72 nanogram per litre (ng/L) of perfluoro octane sulfonic acid (PFOS) which significantly exceeded the EPA's safe level of 0.02ng/L.
- It was also observed, when compared to raw water the concentration of all eight target PFAS increased in the treated water.
- As the conventional water treatment only makes PFAS more prevalent the study called for an advanced polishing treatment system.

Polyfluoroalkyl Substances (PFAS):

- PFAS are also known as **Forever chemicals due to their ability to stick around in the environment** for a long period of time.
- They are synthetic chemicals which degrade the environment and are used to make non-stick cookware, water-repellent clothing, cosmetics and other products that repel water or oil
- PFAS are known to **cause adverse health effects such as liver damage, hormonal imbalance, immune system issues, and cancer.**

Stockholm Convention:

- The Stockholm Convention is a global treaty to protect human health and the environment from persistent organic pollutants (POPs).
- The Stockholm Convention focuses on eliminating or reducing releases of POPs.
- Over 152 countries ratified the Convention and it entered into force, on 17 May 2004. India ratified the Convention in 2006

82. Forests a national asset and major contributor to financial wealth: SC

News:

- Amid concerns over Forest (Conservation) Amendment Act (FCAA) 2023 an appeal was filed in Supreme court by the State of Telangana against a High Court decision for “graciously gifting” forest land to a private person.

Prelims Takeaway

- FCAA
- Carbon Sink

Highlights:

- The Supreme Court in a recent judgment has asserted that forests in India are a national asset and are a major contributor to the nation's financial wealth.
- Forests play a pivotal role and serve as a major sink of carbon dioxide (CO₂).
- The mitigation value of CO₂ locked in forests was put as \$5 per tonne of CO₂, this sink of about 24,000 mt of CO₂ is worth \$120 billion, or ₹6 lakh crores.
- The court also quoted **report** of the Ministry of Environment and Forests titled '**India's Forest and Tree Cover: Contribution as a Carbon Sink**',
 - The report stated from the year 1995 to 2005, the carbon stocks stored in our forests and trees have increased from 6,245 million tonnes (mt) to 6,662 mt, registering an annual increment of 38 mt of carbon or 138mt of CO₂ equivalent”.
- Another **2022-23 report by the Reserve Bank of India** (RBI) highlights the macroeconomic impact of climate change and changing patterns of rainfall.
 - These macroeconomic factors cost the economy 2.8% of its GDP and lower the living standards of nearly half of its population by 2050.
 - Moreover, climate change could cost India 3% to 10% of its GDP annually by the year 2100

Forest (Conservation) Amendment Act (FCAA) 2023

- The Forest (Conservation) Amendment Act, 2023, amended the Forest (Conservation) Act, 1980 (FCA) and came into force in December last year.
- The amendment introduced major changes in FCA the key focus was on explanation of its applicability to different types of land and exemptions to specific land categories.
- The Act has been criticized of giving exemptions without an appropriate 'assessment and mitigation plan
- The FCAA also paves the way of giving States the power to regularize encroachments in protected forests and determine diversions of forestlands.

83. Green Credit Programme rules

News:

- The Environment Ministry issued **further guidelines** on its Green Credit Programme (GCP), after it had prescribed rules governing the first initiative.

Prelims Takeaway

- Carbon Credit
- Mission LIFE

Key Highlights:

- **Green Credit Programme:** It has its origin in Mission Life.
- The GCP programme presents itself as an “innovative, **market-based mechanism**” to incentivise “voluntary actions” **for environmental conservation.**
- Individuals, organizations and companies public and private would be encouraged to invest in sectors ranging from

- Afforestation water conservation, stemming air-pollution, waste management, mangrove conservation and in return be eligible to receive **'green credits'**.
- An autonomous body, the **Indian Council of Forestry Research and Education (ICFRE)**, is in charge of administering the programme.
 - They will define methodologies to calculate **'green credits'** that result from the activities prescribed.
 - They will also manage a **trading platform** whereby such credits could be traded.

84. Fourth global mass coral bleaching triggered

News:

- The **fourth global mass coral bleaching** event has been triggered by extraordinary ocean temperatures, the US National Oceanic and Atmospheric Administration (NOAA) said
- This could have **serious consequences for ocean life and millions of people** who rely on reefs for food, jobs, and coastal defence.

Prelims Takeaway

- Coral
- Great barrier reef

Key highlights

- Corals are tiny sea creatures that live together in massive colonies, building undersea structures called reefs.
- These reefs are like underwater rainforests teeming with life.
- The Great Barrier Reef is the world's biggest, stretching for over 2,300 kilometers.
- Reefs are vital for healthy oceans.
- They provide food and shelter for countless fish and other marine animals.
- They also protect coastlines from waves and storms.
- Sadly, rising water temperatures threaten coral reefs.
- When stressed, corals expel colorful algae living inside them, turning them white. This is called bleaching.
- Bleached corals are more likely to die.
- Corals are tiny animals that build large reefs.
- Coral reefs are vital for marine life and coastal protection.
- Rising water temperatures threaten coral reefs through bleaching.

85. World Earth Day 2024

News:

- World Earth Day, also known as International Mother Earth Day, is a globally recognised event dedicated to raising awareness and promoting the sustainability of our planet.

Prelims Takeaway

- WWF
- Earth day

Key highlights

- Earth Day, celebrated every year on April 22nd, is a global movement that began in 1970 (marking its 54th year in 2024).
- It started in the US with millions protesting environmental damage caused by events like the Santa Barbara oil spill.
- The United Nations officially recognized Earth Day in 2009.
- Now celebrated in 192 countries and organized by Earthday.org

Objective

- it aims to be the world's biggest environmental movement.
- The purpose of Earth Day is to encourage everyone to work together to fix the planet's ecosystems, fight climate change, and protect the variety of life on Earth.

- This global effort has seen success, like the Paris Agreement to reduce greenhouse gases being signed on Earth Day 2016.
- This year's theme, "Planet vs. Plastics," highlights the growing problem of plastic pollution, which now reaches over 380 million tons a year worldwide.
- It emphasizes the danger plastic poses to our planet and health, calling for a dramatic reduction in plastic production by 2040.

86. Karnataka plea for drought relief - The Hindu

News:

- The Supreme Court reminded the Centre and Karnataka about the need to amicably resolve differences that arise in a federal structure.
- The Union government assured that "something will be done" to resolve the drought worries of Karnataka in a week's time.
- The State said the **Centre was violating the statutory scheme of the Disaster Management Act, 2005**,
- The Manual for Drought Management and the Guidelines on Administration of the State Disaster Response Fund and the NDRF.

Prelims Takeaway

- Sendai Framework
- NDMA

87. Plastic Treaty Talks

News:

- Global Leaders met in Canada, to discuss a **global treaty** to end the Plastic Pollution by the end of year.

Key Highlights:

- The **U.N. Environment Assembly** in 2022, nations agreed to develop a legally binding agreement by the end of 2024 to address the world's plastic pollution crisis.
- **The treaty** is set to address plastics through their entire lifecycle
- Many plastic and petrochemical-producing countries including Saudi Arabia, Iran and China, known collectively as the group of **Like-Minded Countries** have opposed mentioning production limits.
- Meanwhile, the 60-nation "**High-Ambition Coalition**", which includes EU countries, island nations, Japan and the UAE, wants to end plastic pollution by 2040.

Efforts taken by India:

- **Plastic Waste Management Amendment Rules, 2021** prohibits identified single use plastic items by 2022
- Thickness of plastic carry bags increased from **50 to 75 microns** in 2021 and to **120 microns** with effect from 2022
- **Plastic Waste Management Amendment Rules, 2022** The guidelines provide a framework to Strengthen the **circular economy** of plastic packaging waste
- Promote the development of new alternatives to **plastic packaging**
- Provide the steps for moving towards sustainable plastic packaging by businesses

Organisation for Economic Co-operation and Development

- Released the interim report '**Towards Eliminating Plastic Pollution by 2040**:'
- 21 million tonnes (MT) of plastics leaked into the environment globally.

88. No forests or animals will be left if human-wildlife conflicts continue: SC

News:

- The Supreme Court while hearing a case concerning the demarcation of the boundaries of the **Pobitora wildlife sanctuary** warned human-wildlife conflicts pose a danger to the existence of forests and wildlife.

Prelims Takeaway

- Pobitora wildlife sanctuary
- Human wildlife conflict

Highlights:

- The Supreme Court stated, to conserve forest there needs to be a **balance between the rights of human and wildlife**.
- The observations came while hearing a case concerning the demarcation of the boundaries of **Assam's Pobitora wildlife sanctuary and the settlement of rights of villagers who reside within the sanctuary**.
- The Bench said the State's **proposals** regarding the sanctuary would be cleared by the **National Board of Wildlife and also undergo the scrutiny of the Supreme Court**.
 - The court ordered the States to include the **Chief Wildlife Warden and the Field Director of the Pobitora wildlife sanctuary** to be made members of the special committee to represent the concerns of the wildlife.
- The court noted in its order that "from the prima facie perusal of the map, it appears that the **State proposes to delete smaller areas of the wildlife sanctuary and include a larger area** so as to account for the land of the settlers and also the issue of the growing population of rhinoceros".
- Last month the **Supreme Court also stayed** Assam government's decision to **denotify the Pobitora wildlife sanctuary**.

Impacts of Human-wildlife conflict:

- Financial losses to humans along with threats to health and safety. Livelihoods, food security and property are also affected.
- Increase in road and railway infrastructure increases the chances of accidental death of animals.
- Habitat loss and Fragmentation of animals which leads to biodiversity loss or extinction.

89. Ministerial Round Table Conference at World Energy Congress

News:

- Ministerial Round Table Conference was held on 24th April, 2024, at the ongoing 26th edition of World Energy Congress in Rotterdam, Netherlands.
- The Conference discussed the positives of COP28 UN Climate Change Conference.

Prelims Takeaway

- World Energy Council
- 26th World Energy Congress
- COP28

Highlights:

- The round table conference **also discussed energy innovation and collaboration**, and implications in managing the evolving energy trilemma trade-offs.
- During the conference, the Union Power Secretary highlighted India's pivotal role in **COP28**, emphasizing its significance as a policy catalyst in global energy transition.
 - He also highlighted the **G20 New Delhi Leaders' Declaration** as a testimony of India's efforts for building convergence towards the **COP28 commitments**.
 - **COP28's** recognition of **transitioning towards carbon neutrality**, with emphasis on **Carbon Capture, Utilization and Storage (CCUS)** and green hydrogen.
 - Role of technology deployment and cooperation, with tools such as the **Revamped India Energy Security Scenarios (IESS) 2047 dashboard** aiding informed decision-making.
 - Balancing energy security, access, and sustainability, with initiatives like the **PM-KUSUM Scheme** and solar rooftop programs promoting environmental sustainability and job creation.

26th World Energy Congress:

- **Theme: Redesigning Energy for People and Planet'**,
- This gathering marks the **World Energy Council's centenary in world energy**.
- According to the Council, the Congress seeks to explore the **role of connected energy societies in driving forward global energy transitions in a world context which is less predictable, more turbulent and faster-shifting**.

90. Study says solar radiation available for producing power falling in India

News:

- India Meteorological Department (IMD) suggests quantity of solar radiation available in several locations in India that can be economically converted by solar panels to electricity is showing an “alarming decreasing trend”

Prelims Takeaway

- SPV
- Solar energy commitment

Highlights:

- The **role of aerosols in blocking sunlight** available on earth has been apparent since the 1980s, several studies have shown that there are **variations both over time and location**.
- Global solar radiation showed a generally decreasing trend from 1981-2006. 1971-2000 showed greater dimming compared to 1981-2006.**
 - However, on the whole, there was a reversal in trends after **2001 with the exact causes unclear**.
- SPV potential which is the amount of radiation practically available to be converted to electricity by panels, showed a general decline in the studied stations.**
- India's largest solar parks particularly Gujarat and Rajasthan are also showing a decrease in SPV potential.**
- As of today, **India's installed solar power capacity is about 81 GW** (1 GW is 1,000 megawatt), or roughly 17% of the total installed electricity.

Reasons for decreasing Solar radiation:

- Increased aerosol load-**
 - Fine particles from carbon emissions, fossil fuel burning, dust and clouding are said to be causative factors
- Aerosols absorb the sunlight** and deflect it away from the ground and they can also **precipitate the formation of dense clouds that again block sunlight**.
 - The **efficiency of solar panels** are significantly influenced by the amount of sunlight falling on them.

91. Warming of Indian Ocean set to accelerate: study**News:**

- An analysis by scientists at IITM Pune has found out that the tropical Indian Ocean will likely be in a near-permanent heatwave state.

Prelims Takeaway

- Marine Heatwaves
- Zetta- Joules

Highlights:

- The **Indian Ocean has become warmer by 1.2 degrees Celsius** from 1950 to 2020, and climate models expect it to heat up a further 1.7 degrees Celsius to 3.8 degrees Celsius from 2020 to 2100.
- When measured from surface to a depth of 2,000 metres, the heat content of the Indian ocean is currently increasing at the rate of 4.5 zetta-joules per decade, and is predicted to increase at a rate of 16–22 zetta-joules per decade in the future.
- Mostly attributable to global warming, this phenomenon will accelerate coral bleaching, seagrass destruction, and loss of kelp forests, affecting the fisheries sector adversely.

DEFENCE**92. Tejas Mk-1A****News:**

- The first aircraft of the **Tejas Mk-1A series, LA 5033**, took to the skies from the Hindustan Aeronautics limited (HAL) facility in Bengaluru, marking an important milestone for the fighter that the Indian Air Force (IAF) is desperately waiting for.

Prelims Takeaway

- TEJAS
- LCA programme

LCA Mk-1A aircraft.

- The manufacturer of Tejas LCA Mk.1A be Hindustan Aeronautics Ltd (HAL).

- Tejas LCA Mk.1A will be superior over previous variants of LCA Tejas, in terms of avionics, performance, and weapons capabilities.
- Tejas LCA Mk.1A will be able to fire different types of Beyond Visual Range (BVR) missiles.
- This proves LCA Tejas Mk.1A will be flexible enough for smooth hardware and software integration, that would be required for carrying a variety of BVR missiles, which are available in the inventory of the Indian Air Force (IAF).

93. 'Akashteer Command and Control Systems'

News:

- The Indian Army has initiated the induction of control and reporting systems under '**Project Akashteer**' to **bolster its air defense capabilities**.
- This project aims to deliver an unprecedented level of situational awareness and control for the force to ensure the safety of friendly aircraft and engage hostile aircraft in contested airspace.

Prelims Takeaway

- Akashteer
- Atmanirbhar Bharat

Project Akashteer

- It is a game-changer for India's air defense.
- This high-tech system automates air defense control by **using digital tools**.
- This provides the military with a clear picture of what's happening in the sky (situational awareness) and lets them quickly take control.
- The system can track low-altitude airspace and **manage ground-based air defense weapons**.
- **Developed by Bharat Electronics Limited**, Akashteer is a key part of India's push for self-reliance (Atmanirbhar Bharat).
- **Faster Response and Less Friendly Fire:** By automating tasks, Akashteer lets the military react quicker to threats while minimizing the risk of accidentally hitting their own aircraft.
- **Clearer Picture:** By connecting radar and communication systems, Akashteer gives the military a complete view of the airspace, making it easier to find and deal with enemy targets.
- **Future-Proofed Defense:** Project Akashteer paves the way for a fully automated air defense system, ensuring India's air safety for years to come.

94. Indigenously built cruise missile successfully tested

News:

- The Defence Research and Development Organisation (**DRDO**) **conducted a successful flight test of a "long range subsonic indigenously developed cruise missile"** from the Integrated Test Range (ITR) in Chandipur off the coast of Odisha
- The missile followed the desired path using waypoint navigation and demonstrated very low altitude sea-skimming flight.

Prelims Takeaway

- DRDO
- Indigenous Technology Cruise Missile

Key highlights

- During the test, all subsystems performed as per expectation
- The performance of the Indigenous Technology Cruise Missile (**ITCM**) **was monitored by several range sensors like radar, Electro Optical Tracking System (EOTS)** and telemetry deployed by ITR at different locations to ensure complete coverage of the flight path
- The flight of the missile was also monitored from the Su-30-Mk-I aircraft of the Indian Air Force."
- The missile is developed by Bengaluru-based DRDO laboratory **Aeronautical Development Establishment (ADE)** along with contribution from other laboratories and domestic industries.
- This successful flight test has also established the reliable performance of the indigenous propulsion system developed by **Gas Turbine Research Establishment (GTRE)**, Bengaluru
- The cruise missile is also equipped with advanced avionics and software to ensure better and reliable performance

95. DRDO hands over first batch of indigenous Leading Edge Actuators & Airbrake Control Module to HAL for LCA Tejas Mk1A

Relevance: Various Security Forces and Agencies and their Mandate.

News:

- DRDO's Aeronautical Development Agency (ADA) has handed over the first batch of the indigenous Leading Edge Actuators and Airbrake Control Module to Hindustan Aeronautics Limited (HAL).
- Marking a significant leap towards self-reliance in aeronautical technologies. The HAL, Lucknow has already made preparations for the production of these units for the current **83 LCA Tejas Mk1A order**.

Key Highlights

- The Secondary Flight Control of LCA-Tejas, comprising Leading Edge Slats and Airbrakes, now boasts state-of-the-art servo actuators and control modules.
- The production of these critical components is underway at the Accessories Division, HAL, Lucknow, marking a significant stride towards bolstering **India's aerospace manufacturing capabilities**.

Prelims Takeaway

- DRDO
- Defence technology

96. 'ROCKS', India's first air-launched quasi-ballistic missile

News:

- Recently, the Indian **Air Force (IAF) quietly test fired a quasi-ballistic missile — ROCKS** from the Su-30 MKI
- It marked a significant increase in India's ability to target deep inside enemy territory without even crossing its own air space.

Key highlights

- The missile, a next generation extended **stand-off air-to-surface missile**
 - Has been designed and manufactured by Israeli defence major Rafael Advanced Defense Systems keeping India's needs in mind.
- the missile is a spin-off from the **Sparrow series of air launched ballistic missile** targets using capabilities of its Spice series of missiles.
- With several components used in the missile being sourced from India, the IAF is looking at placing a larger order under the Atmanirbhar initiative
- The IAF wants the missiles to be manufactured in India.
- Quasi ballistic means that the missile does not fire and perform like a regular air-to-ground weapon system.
- The pilot of the aircraft can choose the trajectory of the missile to be horizontal or even vertical.
- It is designed to strike high-value stationary and relocatable targets above ground, or underground, and heavily fortified targets with pinpoint accuracy in GPS-denied arenas.
- Due to the ballistic nature of its flight, its high velocity during the terminal stages of flight would greatly help it penetrate deeper into a target.
- Incidentally, the missile was used by the Israeli military to target a S-300 battery of the Iran last week.
- Operating autonomously, and launched at an extended stand-off range well outside the areas of heavily-defended surface-to-air threats
 - ROCKS incorporates technologies inherited from the legacy Popeye and SPICE air-to-surface weapons.

Prelims Takeaway

- Ballistic missile
- ROCKS

97. Mission ISHAN

News:

- India has kickstarted the process of **unifying its four airspace regions** into one spanning the entire nation in order to streamline and enhance air traffic management.

Key highlights

- The Airports Authority of India (AAI), the public entity responsible for air traffic management (ATM) services, last month invited expressions of interest (EoI)
- The move is expected to benefit not just the airlines through more seamless operations and increased flight handling capacity

Prelims Takeaway

- AAI

- but also passengers by reducing congestion and flying times.
- This airspace is controlled through four flight information regions (FIRs) at Delhi, Mumbai, Kolkata, and Chennai, and a sub-flight information region at Guwahati.
- “A single continuum FIR would yield a lot of benefits in terms of safety, efficiency, user satisfaction, reduced carbon footprint and optimum manpower utilisation
- The AAI emphasised that the consolidation of FIRs into continuous airspace centred in Nagpur is designed to refine and bolster ATM operations in the area.
- For the implementation of ISHAN, a thorough study of current and projected air traffic growth, and the challenges related to the management of increased air traffic,

SCIENCE & TECH

98. India's PRATUSH

News:

- Astronomers are looking forward to opening a new window on the universe by posting **high-resolution telescopes on the moon**, and in orbit around it.
- There are numerous proposals to do this from **astronomers** around the world — including one **from India called PRATUSH**.

Prelims Takeaway

- Cosmic rays
- Pratyush

Key highlights

- India's PRATUSH telescope, built by RRI and ISRO, aims to unlock the secrets of the universe's early days.
- This radio telescope will be positioned on the far side of the moon. To avoid Earth's interference, it will first orbit Earth before being launched towards the moon.
- PRATUSH will listen for faint radio signals from the very first stars and galaxies.
- This will help us understand when these first stars emerged, what they were like, and the nature of the light they emitted during the universe's "cosmic dawn."
- The telescope is equipped with special instruments to capture these weak signals amidst the cosmic noise.
- These instruments include a wideband antenna, a self-calibrating receiver, and a digital correlator.
- The goal is to achieve a sensitivity of a few millikelvin, allowing for clear detection without distortions.

99. Technology behind manufacturing a semiconductor chip

News:

- **Semiconductor chip manufacturing** capabilities are currently limited to very few regions in the world.
- With supply chain disruptions during the pandemic and recent geopolitical tensions, many companies and countries
 - including India, have realised the importance of investing in chip manufacturing infrastructure.

Prelims Takeaway

- Semiconductor
- Taiwan's

How are Semiconductor Chips Made?

- The process resembles creating postage stamps.
- Hundreds of chips are etched onto a circular wafer, similar to a sheet holding many stamps.
- This wafer is then sliced, giving us individual chips.
- Each chip needs a protective shell with tiny wires for power, data, and signals.

India's Semiconductor Scene

- The TATA group is teaming up with Taiwan's PSMC to build a cutting-edge chip factory in India.
- This facility will focus on 28nm chip production by 2026.
- Since chip-making involves many fields, it opens doors for a wide range of professionals like process engineers and data scientists.

100. ISRO's 'zero orbital debris' milestone

News:

- The Indian Space Research Organisation (ISRO) has said its PSLV-C58/XPoSat mission has practically left zero debris in earth's orbit.

Prelims Takeaway

- NASA
- PSLV

Key highlights

- The space agency explained that the last stage of the Polar Satellite Launch vehicle (PSLV) used in the mission was transformed into a kind of orbital station — called the PSLV Orbital Experimental Module-3 (POEM-3)
 - before it was left to re-enter the earth's atmosphere instead of floating in orbit once its mission was completed.

POEM-3: A Clean Mission

- In 2024, **ISRO's PSLV C-58 mission deployed a satellite and then transformed** the 4th stage into POEM-3.
- After completing its experiments, **POEM-3 safely re-entered Earth's atmosphere**, reducing space debris.
- This is important because there's a growing problem with space junk, which can crash into satellites and create a chain reaction of collisions.

101. Peter Higgs, Nobelist Who Predicted the 'God Particle,'

News:

- Peter Higgs, who **predicted the existence of a new particle** that came to be named after him (as well as God) and a **Nobel Prize a year later**, died recently

Prelims Takeaway

- God particle
- boson

God particle

- The Higgs boson is the **fundamental force-carrying particle of the Higgs field**, which is responsible for granting fundamental particles their mass.
- This field was first proposed in the mid-sixties by Peter Higgs, for whom the particle is named.
- The particle was finally discovered in 2012, by researchers at the Large Hadron Collider (LHC)
 - the most powerful particle accelerator in the world, located at the European particle physics laboratory CERN, Switzerland.
- The LHC confirmed the existence of the Higgs field and the mechanism that gives rise to mass and thus completed the standard model of particle physics.
- It is one of the 17 elementary particles that make up the Standard Model of particle physics, which is scientists' best theory about the behaviours of the universe's most basic building blocks.
- Higgs boson plays such a fundamental role in subatomic physics that it is sometimes referred to as the "God particle."
- The Higgs boson has a mass of 125 billion electron volts, meaning it is 130 times more massive than a proton.
- It is also chargeless with zero spin, a quantum mechanical equivalent to angular momentum.
- It is the only elementary particle with no spin.

102. Why is there a WHO alert on viral hepatitis?

Prelims Takeaway

- Hepatitis

News:

- WHO Report

- According to the World Health Organization's **(WHO) Global Hepatitis Report 2024** released recently, Bangladesh, China, Ethiopia, India, Indonesia, Nigeria, Pakistan, the Philippines, the Russian Federation and Vietnam, collectively shoulder nearly two-thirds of the global burden of **hepatitis B and C**.
- The report suggests the disease is the second leading infectious cause of death globally with **1.3 million deaths per year**, the same as tuberculosis, a top infectious killer.

Hepatitis Disease:

- Hepatitis is an **inflammation of the liver** that is caused by a variety of infectious viruses and non-infectious agents leading to a range of health problems
 - Some of which can be fatal. There are five main strains of the hepatitis virus, referred to as types **A, B, C, D and E**.
- India is vulnerable as a large number of cases remain unaware, lack of awareness of symptoms, screening and treatment and not having access to good hygiene practices.
- Hepatitis B and C are most widespread of the virus found majorly in people, Hepatitis B can be prevented through vaccination, while hepatitis C is curable with medicines.
- Half the burden of chronic hepatitis B and C infections is among people aged 30-54 years old, with 12% among children under 18 years of age.
- Men account for 58% of all cases.
- Mother to child transmission is responsible for most new infections, and in India, elimination of hepatitis B requires extensive treatment coverage, immunizing and ending any discrimination against patients.
- The WHO data reveals results fall well below the global targets to treat **80%** of people living with chronic hepatitis B and hepatitis C **by 2030**.

103. SC acknowledges Railways' roll-out of anti-collision system

News:

- The Supreme Court recorded the steps taken by the Railways to prevent train accidents, including the implementation of the indigenous anti-collision system Kavach, and acknowledged the measures taken by the Ministry.

Prelims Takeaway

- Kavach
- Rashtriya Rail Sanraksha Kosh

KEY HIGHLIGHTS

- The Supreme Court had asked the Centre to file a status report on rail safety measures, including the Kavach system.
- Kavach, which literally means armour, was developed in 2002 by the Research Designs and Standards Organisation in collaboration with three Indian vendors.

Efforts taken by railway to reduce accident

- **Rashtriya Rail Sanraksha Kosh (RRSK)**
- **Technological Upgradation:** It also includes installing KAVACH - an indigenously developed Automatic Train Protection (ATP).
- **LHB Design Coaches:** Lighter and safer coaches for Mail/Express trains.
- **GPS based Fog Pass Device:** A device to help loco pilots navigate in foggy conditions.
- **Modern Track Structure:** Stronger and more durable tracks and bridges.

Committee related to recommendation of safety of railway

- Kakodkar Committee (2012)
- Bibek Debroy Committee (2014)

104. Meta 'court' to analyse cases of deepfake

News:

- **Meta's** oversight board said that **it was scrutinising the social media titan's Deep Fake policies**, through the lens of two cases.

Prelims Takeaway

- Deepfake
- Digital Personal Data Act 2023

- The move by what is referred to as a Meta “supreme court” for content moderation disputes comes just months after the widespread sharing of explicit **AI-generated** images.

DeepFake:

- Deep Fakes are a compilation of artificial images and audio put together with machine-learning algorithms to spread misinformation and could replace a real person’s appearance, voice, or both.
- **Origin:** The term deep fake originated in 2017 when an anonymous Reddit user called himself “Deepfakes.”
- Deep Fakes are a part of **Deep Synthesis**, which uses technologies, including deep learning and augmented reality, to generate text, images, audio and video to create virtual scenes.

India Stand:

- India does not have specific laws or regulations that ban or regulate the use of deepfake technology.
- India has however called for a global framework on the expansion of “ethical” AI tools.
- Existing laws such as Sections 67 and 67A of the **Information Technology Act, 2000** have provisions
 - That may be applied to certain aspects of deep fakes, such as defamation and publishing explicit material.
- Section 500 of the **Indian Penal Code (1860)** provides punishment for defamation.
- **The Digital Personal Data Protection Act, 2023** provides some protection against the misuse of personal data.

105. The mpox virus uses a ‘genomic accordion’ to evolve and infect humans

News:

- The mpox family of viruses is known to be able to evade selective evolutionary pressures.
- In a recent study, scientists reported the part of the mpox genome where such changes happen.

Prelims Takeaway

- Small pox
- Mpox virus

Highlights:

- poxvirus Mpox was in the headlines after a rapidly expanding global outbreak in 2022-2023.
 - The virus was previously called ‘**monkeypox**’ after a spillover event in a research facility involving monkeys in **1958**.
 - However, researchers have identified mpox in many sporadic outbreaks **among humans**.
- Without immediate intervention, the outbreak has the potential to spread rapidly across national, and even continental, boundaries and come out as another global outbreak.
 - To mitigate this emerging danger rigorous genomic investigations and coordinated public health efforts are required for world’s health security.

Mpox Virus:

- Mpox (previously monkeypox) is a viral illness caused by the mpox virus, a species of the genus **Orthopoxvirus**. Two different clades exist: **clade I and clade II**
- Mpox is treated with **supportive care**. In some circumstances Vaccines and therapeutics developed for smallpox approved for use in some countries can be used for mpox.
- Due to a mpox outbreak in 2022 in more than 118 countries **World Health Organisation (WHO) declared it as a public health emergency**.
 - The outbreak was due to one clade (strains of the virus descended from a common ancestor) — called **Ib**

ECONOMY

106. India plans to build first commercial crude storage

Prelims Takeaway

- Strategic petroleum reserves

News:

- India plans to build its **first commercial crude oil strategic storage** as part of efforts to shore up stockpiles as insurance against any supply disruption.

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| <ul style="list-style-type: none"> International Energy Agency |
|---|

Key highlights

- Indian Strategic Petroleum Reserves Ltd. (ISPRL), an SPV created by the government** for building and operating strategic petroleum reserves in the country
 - Has invited bids for constructing 2.5 million tonnes of underground storage at **Padur in Karnataka**
- ISPRL had in the first phase built a strategic petroleum reserve in underground unlined rock caverns at three locations.

Strategic petroleum reserves (SPRs)

- These are stockpiles of crude oil maintained by countries ensuring a stable supply of crude oil even during times of geopolitical uncertainty or supply disruptions.
- These underground storage facilities play a crucial role in maintaining a steady flow of energy resources for the nation's growth and development.
- as per the terms of the International Energy Programme (I.E.P.) agreement, every nation belonging to the **International Energy Agency (IEA) is required to maintain emergency reserves** of oil amounting to a **minimum of 90 days'** worth of their net oil imports.
- In 2017, **India attained the status of an associate member** within the International Energy Agency.

107. RBI Keeps Repo Rates Unchanged at 6.5 Percent

News:

- The Reserve Bank of India's Monetary Policy Committee (MPC) kept the key repo rate unchanged at 6.5 per cent for the seventh consecutive meeting, as it focused on reigning in retail inflation that has stayed above its 4 per cent target.

Prelims Takeaway

- | |
|--|
| <ul style="list-style-type: none"> MPC Inflation |
|--|

The Monetary Policy Committee (MPC)

- It is a **committee of the Reserve Bank of India (RBI)** that is responsible for setting the repo rate, the interest rate at which banks borrow from the RBI.
- The MPC was **established in 2016**.
- The MPC meets at least four times a year to review the monetary policy stance. In its latest meeting, the MPC kept the repo rate unchanged at 6.5%.
- The MPC also maintained its focus on withdrawing liquidity from the system to control inflation.
- The MPC's decision to keep the repo rate unchanged was in line with expectations.
- Analysts had predicted that the MPC would hold the rate steady, given the recent slowdown in economic growth.
- The MPC's focus on withdrawing liquidity is **aimed at curbing inflation, which has been running above the RBI's target of 4% for several months**.
- The RBI's latest economic forecast predicts that GDP growth will slow to 7% in 2024-25, from 8.7% in 2023-24.
- The slowdown is expected to be driven by a number of factors, including the ongoing global economic slowdown and the tightening of monetary policy by central banks around the world.
- The RBI also revised its inflation forecast upwards to 4.5% for 2024-25, from 4.2% earlier.
- The MPC's next meeting is scheduled for August 2024.
- At that meeting, the MPC will review the latest economic data and decide on the future course of monetary policy.
- The MPC's decisions are important for the Indian economy as they can impact factors such as inflation, interest rates, and economic growth.
- The MPC's actions are closely watched by businesses, investors, and consumers alike.

108. RBI to enable UPI for cash deposit

News:

- The Reserve Bank of India (RBI) has proposed to enable the **Unified Payment Interface (UPI) for cash deposits** considering the app's popularity and convenience.

Prelims Takeaway

- FPIs
- International Financial Services Centre

Key highlights

- It is now proposed to facilitate cash deposit facility through the use of UPI."
- Cash Deposit Machines (CDMs) deployed by banks** enhance customer convenience while reducing cash-handling load on bank branches.
- The facility of cash deposit is presently available only through the use of debit cards.
- The Governor said operational instructions on enabling UPI for cash deposit facility will be issued shortly.
- In another measure, to facilitate wider non-resident participation in **Sovereign Green Bonds (SGrBs)**,
 - the RBI decided to permit eligible foreign investors in the International Financial Services Centre also to invest in such bonds.
- A scheme for investment and trading in SGrBs by eligible foreign investors in IFSC is being notified separately in consultation with the Government and the IFSC Authority.
- At present, foreign portfolio investors (FPIs) registered with SEBI are permitted to invest in SGrBs under different routes available for investment by FPIs in government securities.

Retail Direct scheme

- The RBI also decided to introduce a mobile app for its Retail Direct scheme, introduced in November 2021.
- The scheme gives **access to individual investors to maintain gilt accounts with RBI and invest in government securities.**
- The scheme enables investors to buy securities in **primary auctions and buy/sell securities through the NDS-OM platform.**

109. Mercenary spyware attack**News:**

- Apple has warned its users in India and 91 other countries** that they may have been the **victims of a "mercenary spyware"** attack, according to multiple media reports.
- Apple has warned users that they are being attacked by mercenary spyware that is trying to gain remote access to their iPhones.

Prelims Takeaway

- Spyware
- Malware

Key highlights

- Spying software (spyware):** This sneaky software watches what you do on your computer, like the websites you visit, the things you type, and even your personal information.
- It does this without you even knowing! Spyware often steals this information to show you unwanted ads or even steal your identity.
- Malicious software (malware):** This is a broader term for bad software that can mess up your computer in different ways.
- Malware can include things like viruses, worms, and ransomware.
- Malware can try to damage your computer, steal your information, or stop your computer from working properly.

110. Global trade to pickup in 2024: WTO

News:

- **Global goods trade is expected to pick up gradually** this year following a contraction in 2023, the **World Trade Organization (WTO)** said in a forecast
- The volume of world merchandise trade should increase by 2.6% in 2024 and 3.3% in 2025 after falling 1.2% in 2023, it said but cautioned that regional conflicts, geopolitical tensions and economic policy uncertainty pose substantial downside risks to the forecast.

Prelims Takeaway

- WTO
- Inflation

111. India needs a simpler tariff policy to boost manufacturing: ADB**News:**

- **India needs to take greater efforts to simplify its tariff policy**, enhance its trade competitiveness and redress its 'limited' integration with global value chains, the Asian Development Bank (ADB) said
- It also stressed that this was particularly imperative for its manufacturing sector, which was critical to sustain the growth trajectory over the medium term.

Prelims Takeaway

- ADB
- Tariff barrier

Key highlights

- India's growth strategy was predicated on substantial export growth that could be achieved through integration into global value chains
- The \$2 trillion in exports by 2030 goal set by the government would require considerable growth, the ADB said in its Asia Development Outlook report.

'Improve logistics infra'

- "A simplified tariff policy is needed along with continued efforts to improve trade and logistics infrastructure

112. IPC issues alert on painkiller drug nimesulide over adverse reaction**News:**

- Pharma standards body Indian Pharmacopoeia Commission (IPC) has issued a drug safety alert over nimesulide, saying the pill can trigger rashes on the skin (fixed drug eruption).
- It asked consumers and healthcare professionals to closely monitor the use of the drug and report any adverse reaction to the National Coordination Centre-Pharmacovigilance Programme of India of the IPC.

Prelims Takeaway

- IPRS
- Nimesulide

Indian Pharmacopoeia Commission:

- It is an autonomous Institution of the **Ministry of Health and Family Welfare**, Government of India.
- It is created to set standards of drugs in the country.
- Its basic function is to **regularly update the standards of drugs** commonly required for the treatment of diseases prevailing in this region.
- It publishes official documents for improving the Quality of Medicines by way of adding new and updating existing monographs in the form of Indian Pharmacopoeia (IP).
- It further promotes the rational use of generic medicines by publishing the National Formulary of India.
- It prescribes standards for identity, purity and strength of drugs essentially required from the health care perspective of human beings and animals.
- It also provides **IP Reference Substances (IPRS)** which act as a fingerprint for identification of an article under test and its purity as prescribed in IP.

113. Railways' dedicated freight corridor**Prelims Takeaway**

- Railways

News:

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|-------|
| • DFC |
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- India's ambitious Dedicated Freight Corridor (DFC) has reached **80% completion**, with the Railways targeting June 2024 for the final touches.
- The foundation for the ambitious project was laid 18 years ago, but it has seen more capital outlay and construction pace under the current government.
- The Dedicated Freight Corridor, once fully operational, will prove to be a gamechanger for India since at present freight trains move along with passenger trains on common rail lines, not an ideal situation for a fast-growing economy that aims to become an industrial superpower.

The Dedicated Freight Corridor:

- It is a high speed and capacity railway corridor that is exclusively meant for the transportation of freight (goods and commodities).
- DFC involves the seamless integration of better infrastructure
- The Ministry of Railways has taken up construction of two Dedicated Freight Corridors (DFCs) viz. Eastern Dedicated Freight Corridor (EDFC) from **Ludhiana to Sonnagar (1337 Km)** and Western Dedicated Freight Corridor (WDFC) from **Jawaharlal Nehru Port Terminal (JNPT) to Dadri (1506 Km)**.
- Construction of EDFC has been fully completed and 1220 KM out of 1506 KM of WDFC has been completed and train operations are going on in the completed sections.
- To ensure timely completion of Dedicated Freight Corridors, the Government has made timely provision of funds and monitored the project land acquisition activities by close coordination with State Governments directly and also in different forums i.e. Project Monitoring Group (PMG) etc
- Once all sections of the DFC are complete, the duration of Delhi-Mumbai will be reduced to 48 hours.
- The average speed of a freight train is 20 to 25 km per hour as of now. With the DFC, this would go up to **60 km per hour**.
- **National Rail Plan Vision 2030**- The goal is to increase the modal share of rail to 40%-45% of the logistics market to move 3,600 million tonnes (MT) of cargo by 2030-31.
- **PM Gati Shakti**- Railways is one of the key drivers of the PM Gati Shakti National Master Plan.
- The Ministry of Railways has set up a multi-disciplinary Gati Shakti Directorate in the Railway Board.
- The Gati Shakti Units in all **68 divisions** are also created.
- The PM Gati Shakti National Master Plan has helped in expeditious sanction of projects, monitoring of execution of works and coordination with other Ministries/State Governments.

114. Imported inflation

News:

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| Prelims Takeaway |
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- **Imported inflation** refers to the rise in the prices of goods and services in a country that is caused by an increase in the price or the cost of imports into the country.
- It is believed that a rise in input costs pushes producers to raise the price they charge from their local customers, thus boosting inflation.

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| <ul style="list-style-type: none"> • Inflation • Deflation |
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A fall in the rupee

- **A depreciation** in the value of a country's currency is generally seen as the most **important reason** behind imported inflation in an economy.
- This is because when a country's currency depreciates, people in the country
 - Will have to shell out more of their local currency to purchase the necessary foreign currency required to buy any foreign goods or services
 - Which in turn means that they will effectively be paying more for anything that they import.
- **The Asian Development Bank** recently **warned that India could face imported inflation** as the rupee could depreciate amid the rise in interest rates in the West.
- A rise in interest rates in the West tends to cause the currencies of developing countries to depreciate against western currencies
 - Which in turns can lead to higher import costs for these countries.

- It can be further argued that even when import costs rise due to a depreciating currency, the rise in costs is still ultimately driven by the demand for the final output among consumers.
- In other words, the exchange rate of a currency depreciates to reflect the greater demand for the foreign currency in terms of the local currency.
- So, the resulting rise in import costs due to depreciation itself can be seen simply as a reflection of a change in the nominal demand for inputs.
- Stated simply, it is not currency depreciation that is causing input costs and the prices of final goods to rise
 - Rather, the currency depreciation is simply a reflection of higher nominal demand for imported goods from final consumers.

115. IMF forecasts India's economy to grow 6.8% this fiscal year

News:

- World economy is 'remarkably resilient' but challenges remain, the IMF says in its 'World Economic Outlook April 2024'
- The International Monetary Fund (IMF) raised its **growth projection for India's GDP** in the current fiscal year 2024-25 to **6.8%**, and forecast a 6.5% expansion next year.
- An upside comes from the potential for reforms that would liberalise foreign investment and really boost exports and boost jobs and labour force participation.

Prelims Takeaway

- IMF
- Reports by IMF and World Bank

116. How can small-scale farmers benefit from trees on farms

News:

- The uptake of agroforestry remains **restricted to farmers with medium or large landholdings**.
- The problem remains relevant and is especially acute for **small land holders**, who need additional funding to secure water and/or who incur additional debt in doing so.

Prelims Takeaway

- Agroforestry Policy
- Rashtriya Krishi Vikas Yojana

Key highlights

- Agriculture is a diversified land-use practice, integrating crops, trees, and livestock, this technique, broadly called agroforestry
- It can enhance farmer livelihoods and the environment and is slowly gaining in popularity after decades of the modus operandus of monocropping inspired by the Green Revolution.
- **The Ministry of Agriculture** Recognised water availability as a challenge when it drafted the **National Agroforestry Policy in 2014**.
- Moreover, **water availability is critical during the sapling stage** but remains a constant concern if the trees compete with crops for water in a water-constrained environment.
- One way to overcome this constraint is to grow trees that don't compete with the crops for water.
- Farmers, however, are drawn to tree species that are fast-growing and repel herbivores
 - but such species are also generally non-native and threaten soil health and human well-being.
- **The Indian Forest and Wood Certification Scheme 2023**, which certifies agroforestry and wood-based products as sustainable, has an exhaustive list of eligibility criteria for farmers and industries.

117. At WTO, India seeks permanent solution for public stockholding

Prelims Takeaway

- WTO

News:

- India at the WTO wanted to work on the long-pending permanent solution for **public stockholding subsidies**, for smooth running of programmes such as the MSP.
- The **recent Ministerial Conference in Abu Dhabi** failed to deliver results.

| |
|----------------------------|
| • Agreement on Agriculture |
|----------------------------|

Key highlights

- In **Committee on Agriculture (CoA)** meeting at the WTO, New Delhi insisted that members should revisit the joint proposal made by **G33-African Group-ACP Group** on public stockholding, a permanent solution on public stockholding could not be agreed to at MC13.
- The members should urgently honor the mandate on the matter pending since the 2013 **Bali Ministerial Decision**
- **The peace clause** is ridden with difficult conditions and onerous notification requirements.

Peace Clause-

- High subsidies are perceived to be distorting global trade.
- The peace clause protects a **developing country's food procurement programmes** against action from WTO members when subsidy ceilings are breached.
- The limit is pegged at 10% of the value of food production (**called de minimis**) in the case of India and other developing countries.

WTO-Agriculture Agreement:

- It calls for reduction in domestic subsidies that distorts free trade and fair price in the Agriculture Industry.
- The **Aggregate Measurement of Support (AMS)** is to be reduced by 20% over a period of 6 years by developed countries and 13% over a period of 10 years by developing countries.

Subsidies are categorized into:

Green Box: subsidies that do not distort trade, or at most cause minimal distortion.

- They are government-funded and must not involve price support.
- They also include **environmental protection and regional development programmes**.
- Green box subsidies are therefore allowed without limits.

Amber Box:

- All domestic support measures considered to distort production and trade fall into the amber box, Example MSP in India is categorized under Amber box.

Blue Box:

- This is the "amber box with conditions". Such conditions are designed to reduce distortion, by limiting production and having designated quotas.
- At present, there are no limits on spending on blue box subsidies.

118. Indian economy projected to grow 6.5% in 2024: UNCTAD

News:

- India's economy is projected to grow by 6.5% in 2024, according to a report by the UN

Prelims Takeaway

- UNCTAD
- IMF

Key highlights

- It noted that multinationals extending their manufacturing processes into the country to **diversify their supply chains will have a positive impact on Indian exports**.
- The expansion in 2023 was driven by strong public investment outlays as well as the vitality of the services sector
 - which benefited from robust local demand for consumer services and firm external demand for the country's business services exports," UNCTAD said.

119. IRDAI removes age bar for buying health insurance

News:

- The Insurance Regulatory and Development Authority of India (IRDAI) has **removed the age limit** for purchasing health insurance policies,

Prelims Takeaway

- IRDAI
- Bima Trinity

Key Highlights:

- Earlier, there was an **age limit of 65 years** to buy new health insurance policies.
- Aimed at bringing in extended health benefits to senior citizens
 - and caters to diverse demographic groups, including children and maternity needs.
- Companies are encouraged to develop tailored products to meet specific age-related requirements, fostering a more **inclusive healthcare ecosystem**.

120. FSSAI asks states to test branded spices amid quality concerns

News:

- After authorities in **Hong Kong and Singapore** ordered that four spice mixes from two of India's top spice manufactures be **withdrawn** following **detection of high levels of ethylene oxide**, FSSAI has asked states to test branded spices.

Prelims Takeaway

- Ethylene oxide
- FSSAI

Highlights:

- Samples of spice mixes from all brands will be tested for the presence of **ethylene oxide**; the compound is not allowed in food products as per the regulations.
- The food regulator has also started **collecting samples of baby formula** to check whether they conform to Indian standards.
 - This comes after an international body highlighted that food and beverage giant **Nestle** was selling baby formula with **higher sugar content** in South Asian, African, and Latin American countries.
- The **FSSAI** had said that the lab reports of the samples from India will be sought and placed before the existing, in-house subject expert committee for examination.
 - A consolidated report on spices is likely to come out in 25 days, according to officials.

FSSAI:

- Food Safety and Standards Authority of India (FSSAI) is an autonomous **statutory body** established under the Food Safety and Standards Act, 2006 (FSS Act).
- The FSSAI comes under the **ministry of health and family welfare** and is Headquartered in Delhi.
- Responsibility of FSSAI includes ensuring compliance of **FSS Act, 2006**.
- Enforcement is undertaken on the basis of **surveillance, monitoring, inspection and random sampling** of food products carried out by the Officials of Food Safety Departments

121. NABARD unveils strategy to mobilise green financing - The Hindu

News:

- National Bank for Agriculture and Rural Development (NABARD) on the occasion of Earth Day unveiled its **Climate Strategy 2030** document which aims to address India's need for green financing.
- India requires approximately **\$170 billion** annually to reach a cumulative total of over \$2.5 trillion by 2030, the current green finance inflows are critically insufficient.

Prelims Takeaway

- Nabard
- Green credit

Key Highlights:

- 2019-20, India garnered about \$49 billion in green financing, merely a fraction of what is needed.
- the majority of funds earmarked for mitigation, only **\$5 billion was allocated** towards adaptation and resilience.
- the minimal private sector engagement in these areas due to challenges in **bankability and commercial viability**.

NABARD Climate Strategy 2030:

- NABARD's **Climate Strategy 2030** is structured around four key pillars which include
 - accelerating green lending across sectors,
 - playing a broader market-making role,
 - internal green transformation and
 - strategic resource mobilization.

122. PayU gets RBI's in-principle nod to operate as payment aggregator**News:**

- Fintech firm PayU has received an in-principle approval from the Reserve Bank to operate as a payment aggregator
- With in-principle approval in place, PayU can now onboard new merchants to provide them digital payment services.

Prelims Takeaway

- Upi
- RBI

Payment Aggregator

- Online payment aggregators are companies that facilitate online payments by acting as intermediaries between the customer and the merchant.
- The RBI introduced Guidelines for Regulating PAs and Payment Gateway in March 2020.
- They typically provide a range of payment options to customers, including credit and debit cards, bank transfers, and e-wallets.
- Payment aggregators collect and process payment information, ensuring that transactions are secure and reliable.
- By using a payment aggregator, businesses can avoid the need to set up and manage their own payment processing systems which can be complex and expensive.
- Some examples of payment aggregators include PayPal, Stripe, Square, and Amazon Pay.

123. REITs and InvITs**News:**

- Investment vehicles for realty and infrastructure sectors — **REITs and InvITs**, have garnered **₹1.3 lakh crore** in the past four years.
- They are expected to facilitate more pooled funds, the central bank observed in the RBI Bulletin.

Prelims Takeaway

- REIT & INVIT
- SEBI

Infrastructure Investment Trust:

- An InvITs is a Investment Scheme similar to a mutual fund, which enables direct investment of money from individual and institutional investors in infrastructure projects to earn a small portion of the income as a return.
- InvITs are listed on exchanges just like stocks through **Initial Public Offering (IPO)**.
- regulated by the Securities and Exchange Board of India (SEBI).

Real Estate Investment Trust:

- Entity created for channeling **investible funds** into operating, owning or financing **income-producing real estate**.
- REITs are modeled on the lines of **mutual funds** and provide investors with an extremely liquid way to get a stake in real estate.

REIT & INVIT Index:

- Launched by **National Stock Exchange Indices Ltd**, a subsidiary of the National Stock Exchange of India.
- The index aims to track the performance of Reits and InvITs that are publicly listed and traded on the NSE.
- The weights of securities within the index are based on their free-float market capitalization.

124. Inheritance tax**News:**

- The use of inheritance tax as a tool for redistribution of wealth to address income inequality has been discussed widely. Over the years, India abolished estate duty, wealth tax.

Prelims Takeaway

- Estate Duty
- Income Inequality

Key Highlights:

- The use of inheritance tax as a tool for **redistribution of wealth** to address income inequality has been discussed widely.
- Calls to **tax billionaires** to build more equitable societies have been growing louder globally.
- US to levy a minimum 25% tax on taxpayers with wealth over \$100 million.
- France and Brazil have pushed for a G20 declaration on taxing the super rich.

Income Inequality

- According to a survey conducted by Oxfam, **58 percent** of India's total wealth is concentrated within one percent of its population.
- It is higher than the global average of about **50 percent**.
- To address this Inequality, as India is a Welfare state, and is Constitutionally obligated to fulfill the needs of lower Strata of people.

Estate Duty:

- India did have an inheritance (or death) tax once.
- The tax, which was known as **estate duty**, was introduced in **1953**, and was abolished in 1985.
- It was an attempt to reduce economic disparity.
- Today, many developed countries such as the US, UK, France, Japan and the Netherlands have **inheritance tax** laws in place.
- The levy of inheritance tax mainly revolves around fears regarding the outflow of entrepreneurial human capital and financial resources going abroad.

Wealth and Gift Tax

- The wealth tax is levied on an individual's net worth. In India, the Wealth Tax Act was introduced in **1957 and repealed in 2015**.
- It is basically for the section that is richer than a certain limit (30 Lakhs) and eligible for a wealth tax (1%) of the amount exceeding the limit.
- Similarly, Gift Tax is charged on gifts received in excess of **Rs 50,000** in a financial year, which will be **added to your income** from other sources and taxed according to your slab.

125. Intellectual property

News:

- The U.S. has once again included India in the '**priority watch list**' of countries.
- Along with China, Russia, Venezuela, and three others, for alleged problems related to IP protection and enforcement.
- There will be particularly intense bilateral engagement on the matter during the coming year.

Prelims Takeaway

- TRIPS
- Special Report 301

Key Highlights

- There has been progress under the **U.S.-India Trade Policy Forum** in addressing issues of trademark infringement investigations and pre-grant opposition proceedings,
- Numerous long-standing concerns remain, according to the U.S. Trade Representative's **Special 301 report**.
- Inadequate IP enforcement, including **high rates of online piracy**, and insufficient legal means to protect trade secrets.
- **India said it follows** all the protocols mentioned under **TRIPS**.

126. SFBs should be worth Rs 1,000 cr to become universal banks, says RBI

News:

- The Reserve Bank of India (RBI) has said small finance banks (SFBs) should have a minimum net worth of Rs 1,000 crore to become universal banks

Prelims Takeaway

- SFB
- CRR & SLR

Key Highlights:

- SFBs need to have a satisfactory track record of performance for a minimum period of five years.
- The shares of these bank should have been listed on a recognised stock exchange

- SFBs also need to have a net profit in the last **two financial years**
- Gross non-performing assets (**GNPA**) and net non-performing assets (**NNPA**) of less than or equal to **three per cent and one per cent**, respectively in the last two financial years

Small Finance Banks:

- SFBs in India are a category of banks established to provide basic banking services and credit facilities to **underserved sections** of the population.
- Which includes small business owners, micro and small industries, farmers, and the unorganised sector.
- Regulated by the **RBI**.
- All prudential norms and regulations of the RBI as applicable to existing commercial banks, including the requirement of maintenance of **CRR and SLR** are also applicable to SFBs.
- According to RBI, if an SFB aspires to transit into a universal bank, it has to have a satisfactory track record of performance for a minimum period of **5 years**.
- The minimum paid-up voting **equity capital** for small finance banks shall be **Rs.200 crore**
- Small Finance Banks have to allocate **75%** of their total net credit to **priority sector lending**.
- They need to have at least **25%** of their branches in **unbanked rural areas**.
- Governed by **Banking Regulation Act,1949 and RBI Act,1934**.

127. Increasing global uncertainties may impact exports, says FIEO

News:

- The escalating **geopolitical tensions are likely to impact global demand** which may have implications for India's exports, said FIEO.

Prelims Takeaway

- FIEO
- Interest equalisation scheme.

Highlights:

- The uncertainties caused by the continuing war between Russia and Ukraine impacted India's outbound shipments in 2023-24, which recorded a dip of 3.11% to \$437 billion. Imports too slid by more than 8% to \$677.24 billion.
- Due to demand slowdown, offtake of goods will be low so foreign buyers will also take a longer period to make payments.
 - This requires funds for a longer period.
 - Exporters also need interest subvention support

INTERNATIONAL RELATION

128. 'India set to sign trade deal with Oman to expand its West Asia ties'

News:

- India and Oman will sign a trade deal in the coming months, as New Delhi seeks to expand its ties in West Asia, where rising tensions are putting major shipping routes at risk.
- It will help India with a strategic partner and access to key trade routes in a volatile region.

Prelims Takeaway

- GCC
- India-Oman Relations

Key Highlights:

- India and Oman have annual trade of less than **\$13 billion**,
- The relationship is important for New Delhi as the Gulf nation is a gateway to the narrow **Strait of Hormuz** between Oman and Iran, a major transit point for global oil shipments.
- India has pivoted to seeking bilateral deals with **GCC(Gulf Cooperation Council)** member nations such as Oman and United Arab Emirates.
- The planned deal with Oman "also gives a competitive edge as GCC is negotiating trade agreements with Pakistan and China,

129. Drugs worth Rs 600 crore seized from Pakistani boat

News:

- **The Indian Coast Guard (ICG) seized 86 kg of suspected heroin** worth Rs 602 crore from a Pakistani boat, which was on its way to Sri Lanka via Tamil Nadu off the Porbandar coast in Gujarat
- The drugs were seized during a joint ICG operation with the Anti-Terrorist Squad (ATS) and the Narcotics Control Bureau (NCB) during which the Indian side opened fire injuring one of the crew members.

Prelims Takeaway

- ATS
- Coast guard



Editorials, Gists and Explainers

130. Compounding crises: Water deficit worsens other adverse events for the poor

Context:

- There is only enough water to **fill 23% of the holding capacity in all of South India's reservoirs**
- This, according to the analysis, is nine percentage points lower than the rolling decadal average, speaking to the certainty and the magnitude of the impending crisis.

Key Highlights

- The last time South India faced a summertime water crisis was in 2017.
- The crisis in the same region this year is poised to be different, and worse, for a few reasons.
- First, the monsoons are influenced by various factors; of these, El Niño events render them more erratic, even if isolating their influence thus is a simplification.
- There was an El Niño event in 2014-16 whereas this time there is an ongoing event and among the five strongest such events in recorded history.
- Second, after meteorologists recorded 2023 to be the warmest year on record, they also said they expected 2024 to be worse.
- Fourth, this crisis has happened before; yet, while (some) policies and forecasting have improved, preparedness and implementation of these policies on the ground have not.
- Other factors, including unplanned urban growth, over-extraction of groundwater, low water reuse efficiency, insufficient community involvement, and encroachment and/or degradation of catchment areas, persist.

Impact of climate change

- Climate change will impose a deadlier cost on low- and middle-income countries such as India by creating simultaneous crises.
- Any water crisis must be seen against this backdrop, where it is both a crisis in itself and a factor that compounds the effects of another.
- But governments and policymakers seem to need reminding that this and future crises will neither be just about the water nor the fault of climate change.

131. From East to West, India is making a big push for transnational transport corridors

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

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 Bandar 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.

132. Is the Katchatheevu islet disputed? - THE HINDU

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

News:

- Prime Minister raised again the **controversial matter of Katchatheevu**, a few weeks ahead of the Lok Sabha poll in Tamil Nadu.

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| <p>When did Katchatheevu become a part of Sri Lanka?</p> <ul style="list-style-type: none"> • During June 26-28, 1974, the then Prime Ministers of India and Sri Lanka, Indira Gandhi and Sirima R.D. Bandaranaike, signed an agreement to demarcate the boundary between the two countries in the historic waters from Palk Strait to Adam's Bridge. • It also pointed out that "this boundary falls one mile off the west coast of the uninhabited" Katchatheevu. • The pact brought to a close the talks held between the two sides since October 1921. Initially, the negotiations were held between the governments of the then Madras and Ceylon. <p>How important has been Katchatheevu to the fisherfolk?</p> <ul style="list-style-type: none"> • Fisherfolk of the two countries have been traditionally using the islet for fishing. • Though this feature was acknowledged in the 1974 agreement, the supplemental pact in March 1976 made it clear <ul style="list-style-type: none"> ◦ that fishing vessels and fishermen of the two countries "shall not engage" in fishing in the historic waters, territorial sea and exclusive zone or exclusive economic zone of either of the countries "without the express permission of Sri Lanka or India." | <p>What triggered the negotiations between India and Sri Lanka?</p> <ul style="list-style-type: none"> • Sri Lanka claimed sovereignty over Katchatheevu on the ground that the Portuguese who had occupied the island during 1505-1658 CE had exercised jurisdiction over the islet. • India's contention was that the erstwhile Raja of Ramnad [Ramanathapuram] had possession of it as part of his zamin. <p>How was the 1974 agreement received?</p> <ul style="list-style-type: none"> • The present demand for the Katchatheevu retrieval traces its origin to the opposition that the pact generated in 1974. |
|--|---|

What has been the stand of the Union government on the issue?

- In August 2013, the Union government told the Supreme Court that the islet was a matter of dispute between British India and Ceylon (now Sri Lanka) and there was no agreed boundary, a matter of which was settled through 1974 and 1976 agreements.
- In December 2022, the Union government, while referring to the two agreements, pointed out in its reply in the Rajya Sabha that Katchatheevu “lies on the Sri Lankan side of the India-Sri Lanka International Maritime Boundary Line.”
- It added that the matter was sub-judice in the Supreme Court.

133. Should State Governments borrow more?

News:

- The Government of Kerala has approached the Supreme Court for a resolution on the issue of state borrowing power

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| <p>Key highlights</p> <ul style="list-style-type: none"> • The Union government says that the state borrowing should be limited to 3% of the State's income or Gross State Domestic Product (GSDP). • Kerala contends that by curtailing its borrowing powers, the Centre is undermining the State's ability to fulfil some of its basic financial commitments and violating the principle of federalism. • The Constitution divides spending responsibilities between India's federal government (Union) and state governments. • Raising taxes: Mostly done by the Union government. • Spending: Mostly done by state governments, particularly on social services like education and healthcare (₹19,182 billion in 2022-23 compared to the Union's ₹2,230 billion). <p>Focus on Social Services vs. Other Areas:</p> <ul style="list-style-type: none"> • The Union government spends more on defense (roughly twice social services) and infrastructure & energy (2.4 times social services). • State governments have significantly increased social spending over the past 20 years. This spending has helped address slow rural income growth. <p>Kerala: A Case Study</p> <ul style="list-style-type: none"> • They dedicated 40-50% of their budget to social sectors (1960-2000), leading to significant development. • However, their social spending proportion has stagnated recently, while other states have increased theirs. • Kerala devolves a significant portion of its budget to local governments, which might still put them above the national average in social spending. | <p>Challenges and Considerations:</p> <ul style="list-style-type: none"> • States get funding from three sources: taxes, Union transfers, and borrowing. • Kerala borrowed heavily during the pandemic to provide economic relief. • Reduced Union transfers and stagnant tax revenue forced Kerala to increase borrowing beyond the limit set by the central government. <p>Arguments for Increased Borrowing by Kerala:</p> <ul style="list-style-type: none"> • Higher social spending fosters a knowledge-based economy. • Borrowing from domestic institutions, with Kerala's high savings rate, could be productive. • Effective use of borrowed funds can create a virtuous cycle of growth. <p>Concerns about Kerala's Spending:</p> <ul style="list-style-type: none"> • A large portion of social spending goes towards salaries and pensions, potentially limiting funds for new initiatives. • Low capital expenditure (infrastructure) might hinder future growth. |
|---|--|

The Way Forward:

- Kerala argues that restrictions on borrowing violate federalism and limit their ability to fulfill financial commitments.
- Other states might face similar challenges soon due to an aging population and youth out migration.
- The Union and State governments need to collaborate to address these issues.
- Kerala needs to convince the Union that their borrowing is a long-term investment, not just a quick fix.

134. Why Uttarakhand govt wants to evaluate the risk of Glacial Lake Outburst Floods

News:

- The Uttarakhand government has constituted two teams of experts to evaluate the risk posed by five potentially hazardous glacial lakes in the region.
- These lakes are prone to Glacial Lake Outburst Floods (GLOFs), the kind of events that have resulted in several disasters in the Himalayan states in recent years.

Key highlights

- The goal of the risk assessment exercise is to minimise the possibility of a GLOF incident and provide more time for relief and evacuation in case of a breach.

GLOF

- **Glacier Retreat, Lake Formation:** As glaciers melt, they leave behind depressions that fill with water, forming glacial lakes.
- These lakes are most common in high mountains and polar regions.
- **Two Types of Lakes:** There are two main types: ice-contact lakes (touching the glacier) and distal lakes (further away but still influenced by glaciers).
- **The GLOF Threat:** Most glacial lakes are precariously held back by unstable dams of ice or loose rock.
- If these dams break, a massive flood called a GLOF surges down the mountains, causing catastrophic damage.

What Triggers a GLOF?

- **Ice Calving:** Large chunks of ice can break off glaciers and fall into the lake, displacing huge amounts of water.
- **Landslides and Avalanches:** These events can destabilize the dam holding the lake, leading to a sudden release of water.

The Devastating Impact of GLOFs

- **Floods of Fury:** GLOFs unleash tremendous volumes of water, sediment, and debris, wiping out entire valleys with incredible force.
- **Infrastructure Obliterated:** Roads, bridges, and buildings are no match for these floods, leading to widespread destruction.
- **Loss of Life and Livelihoods:** GLOFs can cause tragic loss of life and devastate communities.

A Growing Threat: Climate Change and Development

- **Melting on the Rise:** Rising global temperatures are accelerating glacier melt, creating more and larger glacial lakes, especially in the Himalayas.
- **Development in Dangerous Places:** Construction of infrastructure in high-risk areas further increases the dangers of GLOFs.

Millions at Risk in India and Pakistan

- **A Recent Study:** A 2023 study published in Nature found that millions of people in India and Pakistan face GLOF dangers, despite the regions having fewer glacial lakes than other places.
- These regions have a high concentration of people living in vulnerable areas, making them some of the world's most GLOF-prone zones.

Risk Assessment: Minimizing the Threat

- **Early Warning Systems:** The National Disaster Management Authority (NDMA) in India is identifying potentially dangerous glacial lakes to minimize GLOF risks and allow for faster evacuation if a breach occurs.
- **Uttarakhand on High Alert:** 188 potentially risky glacial lakes have been identified in the Himalayan states, with 13 of them in Uttarakhand.
- GLOFs are a serious threat posed by climate change.
- By understanding the risks and taking preventative measures, we can hopefully minimize the devastation they cause.

135. Green Hydrogen push will need to counter challenges

News:

- Recently, the government affirmed its commitment towards making India a green hydrogen hub with a trial run of two buses that will operate on this clean fuel.
- It has plans to roll out 15 more such buses by the end of the year.

Key highlights

- These vehicles have virtually zero emissions and their fuel cells are much more efficient than internal combustion engines.
- Hydrogen, produced through a clean process, is rightly seen as a more dependable fuel — bereft of the uncertainties of solar or wind energy.
- India has an ambitious Green Hydrogen Mission that aims to produce 5 million tonnes of the fuel annually from 2030.
- The project aims to reduce dependence on imported fossil fuels to the tune of Rs 1 lakh crore and avert 50 million metric tonnes of GHG emissions.
- However, several barriers must be overcome before this green fuel becomes commercially viable.
- The technology to use electricity to draw hydrogen from water — electrolysis — has been around since the 1800s.
- The use of renewable energy-generated electricity makes the process green.

CHALLENGES

- That's where the first challenge appears. Experts estimate that India will need to add about 100 GW of RE capacity every year for the next seven years to attain its green hydrogen-related goals
 - to put things in perspective, it added about 16 GW of RE last year.
- Moreover, producing 1 kg of this clean fuel requires eight to nine litres of water.
 - Given the water stresses in large parts of the country, making hydrogen production less water-intensive will be a big challenge for the country's clean fuel programme.
- According to International Energy Agency data, the global manufacturing capacity of electrolyzers — the unit where electrolysis takes place — is about 10 GW.
- to attain its 2030 target, India could need six to 10 times the world's current electrolyser production capacity. A
- ccess to rare earth minerals — a market dominated by China — will play a critical role in scaling up electrolyser production capacity.
- Technological innovations will be required in transporting and storing the highly inflammable green fuel — the safety concern is one reason that buses will not be carrying passengers, to begin with.

Conclusion

- The government has done the right thing in tapping into Indian Oil Corporation's proven capacities for the country's first green hydrogen vehicle project.
- To access markets, it will now need to develop more expertise and forge partnerships with other countries.

136. Perverse intent: The CAA suffers from narrow definition of persecution and arbitrariness

News:

- Offering citizenship to migrants who have fled their countries of origin because of persecution and have stayed a sufficient time in their adopted country, is a humane endeavour by any nation-state and should be generally welcomed.

Key highlights

- But by limiting this measure only to migrants from an arbitrary group of neighbouring nations and to narrow the definition only to “religious persecution”
 - and to further constrict this to not include Muslims, atheists, and agnostics among others
- would suggest that the reasoning to provide this citizenship has less to do with humanitarianism and more to do with a warped and perverse understanding of Indian citizenship.
- By its very intent, the Citizenship (Amendment) Act, whose rules were notified by the Ministry of Home Affairs last month
 - over four years since the **Act was passed in Parliament, goes against the ethos of the Indian Constitution.**
- It is fairly evident that persecution can be due to other reasons as well, such as linguistic discrimination in the case of Sri Lanka in recent years and erstwhile East Pakistan from which Bangladesh was born.
- Besides, as the case of the Rohingya from Myanmar shows, Muslims have also faced the severest form of discrimination in recent years
- with thousands killed, more than a million of them rendered stateless and lakhs fleeing to other countries including India
- Even in Muslim-majority countries and those professing Islam as the state religion, such as Pakistan, minority Islamic sects such as the Ahmadiyyas have been subject to oppression and persecution.

UN Convention Relating to the Status of Refugees

- The UN Convention on Refugees is an international convention that pertains to refugee protection worldwide. It was adopted in 1951 and entered into force in 1954.
- There has been one amendment to the convention in the form of the 1967 Protocol.
- While India is not party to the 1951 UN Convention Relating to the Status of Refugees and the 1967 Protocol Relating to the Status of Refugees
- they have provisions that require signatories to provide refugee status to those who are subjects of different forms of persecution beyond just due to their religion.

137. Different approaches to AI regulation

News:

- The Artificial Intelligence (AI) space has seen certain developments crucial to its regulation in recent years — the United Nations’s Resolution on Artificial Intelligence, the AI Act by the European Parliament, laws introduced on AI in the U.K. and China and the launch of the AI mission in India.
- These efforts to formalise AI regulations at the global level will be critical to various sectors of governance in all other countries.

Key highlights

- With the passing of the United Nations Resolution on Artificial Intelligence, the need and associated discourse on the regulation of AI has entered a new phase.
- It was recognised that unethical and improper use of AI systems would impede the achievement of the 2030 Sustainable Development Goals (SDGs), weakening the ongoing efforts across all three dimensions
 - social, environmental, and economic.
- Another controversial aspect mentioned in the UN resolution has been the plausible adverse impact of AI on the workforce.
- Thus, being the first of its kind, the Resolution has shed light on the future implications of AI systems and the urgent need to adopt collaborative action.

The EU's approach

- The EU recently passed the AI Act, the foremost law establishing rules and regulations governing AI systems. With its risk-based approach, the Act categorises systems into four categories, namely unacceptable, high, limited, and minimal risks, prescribing guidelines for each.
- The Act prescribes an absolute ban on applications that risk citizens' rights, including manipulation of human behaviour, emotion recognition, mass surveillance etc.

China's stand on AI

- The country released, in phases, a regulatory framework addressing the following three issues
- content moderation, which includes identification of content generated through any AI system
- personal data protection, with a specific focus on the need to procure users' consent before accessing and processing their data; and algorithmic governance
 - with a focus on security and ethics while developing and running algorithms over any gathered dataset.

India's position

- Amid the global movement towards regulating AI systems, India's response would be crucial, with the nation currently catering to one of the largest consumer bases and labour forces for technology companies.
- India will be home to over 10,000 deep tech start-ups by 2030. In this direction, a ₹10,300 crore allocation was approved for the India AI mission to further its AI ecosystem
 - through enhanced public-private partnerships and promote the start-up ecosystem.
- Amongst other initiatives, the allocation would be used to deploy 10,000 Graphic Processing Units, Large Multi-Models (LMMs) and other AI-based research collaboration and efficient and innovative projects.

Conclusion

- With its economy expanding, India's response must align with its commitment towards the SDGs while also ensuring that economic growth is maintained.
- This would require the judicious use of AI systems to offer solutions that could further the innovation while mitigating its risks.
- A gradual phase-led approach appears more suitable for India's efforts towards a fair and inclusive AI system.

138. The climate crisis is not gender neutral

News:

- The climate crisis is already here and does not impact everyone equally.
- Women and girls experience disproportionately high health risks, especially in situations of poverty, and due to existing roles, responsibilities and cultural norms.

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| <p>Key highlights</p> <ul style="list-style-type: none"> According to the United Nations Development Programme (UNDP), women and children are 14 times more likely than men to die in a disaster. The Supreme Court of India has just ruled that people have a right to be free from the adverse effects of climate change, <ul style="list-style-type: none"> the right to a clean environment is already recognised as a fundamental right within the ambit of the right to life. <p>Climate affect women</p> <ul style="list-style-type: none"> Climate-driven crop yield reductions increase food insecurity, adversely impacting poor households that already suffer higher nutritional deficiencies. Within small and marginal landholding households, while men face social stigma due to unpaid loans (leading to migration, emotional distress, and sometimes even suicide), women experience higher domestic work burdens, worse health, and greater intimate partner violence. National Family Health Survey (NFHS) 4 and 5 data showed that women living in drought-prone districts were more underweight <ul style="list-style-type: none"> experienced more intimate partner violence and had a higher prevalence of girl marriages. but also impact their mental health and emotional well-being. <p>Extreme events and gender-based violence</p> <ul style="list-style-type: none"> A report from the Council on Energy, Environment and Water (CEEW) in 2021 found that 75% of Indian districts are vulnerable to hydromet disasters (floods, droughts and cyclones). NFHS 5 data showed that over half of women and children living in these districts were at risk. | <p>Why does climate action need women?</p> <ul style="list-style-type: none"> when provided with the same access to resources as men, women increased their agricultural yields by 20% to 30%. Tribal and rural women, in particular, have been at the forefront of environmental conservation. Giving women and women collectives (Self-help Groups and Farmer Producer Organisations) the knowledge, tools and access to resources would encourage local solutions to emerge. <p>What need to be done</p> <ul style="list-style-type: none"> Urban local bodies, municipal corporations and district authorities in all vulnerable districts need to have a plan and provide training and resources to key implementers. urban planning to improve tree cover, minimising concrete, increasing green-blue spaces and designing housing that is better able to withstand heat are longer-term actions. Devolution of powers and finances and investing in building the capacity of panchayat <p>Case study</p> <ul style="list-style-type: none"> The Mahila Housing Trust in Udaipur showed that painting the roofs of low-income houses with reflective white paint reduced indoor temperatures by 3° C to 4° C and improved quality of life. |
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Conclusion

- The National Action Plan on Climate Change (NAPCC) and State Action Plan on Climate Change (SAPCC) highlight the impacts on women,
- Recommendations for the ongoing revision of SAPCCs lay stress on the need to move beyond stereotypes, recognise the vulnerabilities of all genders
- implement gender-transformative strategies, ensuring a comprehensive and equitable approach to climate adaptation.
- Instead of being labelled as victims, women can lead the way in climate action.

139. The 'import restrictions' on solar PV cells

News:

- Recent government orders on attempts to increase local sourcing of solar modules to support India's renewables manufacturing ecosystem has been widely reported as 'import restrictions.'
- Government order to re-implement its 2021 notification of an 'Approved List of Models and Manufacturers of Solar Photovoltaic [PV] Modules', also called the ALMM list.

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| <p>What is the ALMM list? Why is it being re-implemented?</p> <ul style="list-style-type: none"> This list consists of manufacturers who "are eligible for use in Government Projects/Government assisted projects/ projects under Government schemes & programmes.... including projects set up for sale of electricity to the Central and State Governments." However, this notification was "kept in abeyance" two years after it was issued, for the past financial year. While the government did not give an explicit reason for this, it stems from concerns that solar modules and cells were overwhelmingly imported from China at highly competitive rates. This is an import substitution effort, and not an attempt to restrict imports. | <p>Does India rely on solar PV imports?</p> <ul style="list-style-type: none"> India is overwhelmingly import dependent to meet its demand for solar cells and modules — with China and Vietnam being the country's major suppliers. "In comparison, the manufacturing capacity in India is relatively low and is largely restricted to the last manufacturing stage <ul style="list-style-type: none"> ICRA stated in its November 2023 report, adding that the PLI scheme is expected to change this, with integrated module units expected to come up in India over the next 2-3 years. The government also introduced a steep 40% customs duty on PV modules and 25% on PV cells. |
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What is the scope for solar in India?

- The government's ambitious target of 500 GW of installed capacity from non-fossil fuels by 2030 is the main driver to scale solar power in India.
- India also accounts for the fastest rate of growth for demand of electricity through 2026 among major economies, according to the IEA.
- The country has an estimated solar power potential of 748.99 GW. Hence, the potential of solar energy is not fully tapped, so far.
- The government is making efforts to harness the available potential through various schemes & programs

140. A battle to save Ladakh, and all of humanity

News:

- When Ramon Magsaysay award winner (2018) and climate activist Sonam Wangchuk announce his 21-day climate fast

Key highlights

- The Himalayan region also faces the damaging effects of climate change through floods, drought, landslides, greenhouse gases, and other pollutants.
- The Himalayan glaciers, like those in the rest of the world, are at risk of melting due to global warming and climate change.

Infrastructure boom

- In 2008, the Centre launched eight Missions under the National Action Plan on Climate Change (NAPCC).
- One of these was under the Ministry of Science and Technology, i.e., the National Mission for Sustaining the Himalayan Ecosystem (NMSHE).
- the “main objective of NMSHE is to develop a capacity to scientifically assess the vulnerability of the Himalayan region to climate change and continuously assess the health status of the Himalayan ecosystem”.

has NMSHE forgotten its role?

- Almost as soon as Ladakh became a Union Territory, several mega infrastructure projects were launched at rapid pace.
- These included the construction of bridges, widening of roads, tunnels, railway lines, mega solar projects, a state-of-the-art airport terminal and wayside amenities to boost tourism.
- The Ladakh (UT) Industrial Land Allotment Policy of 2023 aims “to make UT Ladakh one of the preferred destinations for investment”.
- In its annual report of 2021-22, the National Highways & Infrastructure Development Corporation Ltd. (NHIDCL) states as its vision the following:
- To fast-pace the construction of National Highways and other Infrastructure in the North Eastern Region

A region that has seen disasters

- Since 2010, there have been several disasters in the Himalayan region, with a loss of lives and livelihoods.
- In 2013, a cloudburst in the upper reaches of the Himalayas led to flash floods at Kedarnath.
- In January 2023, disaster struck Joshimath, when water gushed down a lower slope of the mountain, submerging parts of the town.
- In November 2023, the rescue of 41 trapped workers in the collapsed Silkyara tunnel project in the Himalayas garnered international attention.

Suggestion of committee

- This has continued despite dire warnings from geologists and ecologists.
- A Supreme Court of India constituted expert committee even suggested that authorities limit the number of pilgrims visiting the Char Dam Himalayan shrines, at Kedarnath, Badrinath, Yamunotri, and Gangotri to carrying capacity.
- Some expert committees have even suggested that no hydroelectric projects are set up in the para-glacial zone.

Conclusion

- In the name of development, upsetting the fragile balance in the Himalayan ecosystem and its biodiversity cannot be afforded .
- The onus is on all of us to ensure that the Himalayas and the people living under its shadow are protected.

141. Why Andaman and Nicobar Islands are key to Indo-Pacific security

Context:

- The aftermath of the 1857 War of Independence saw the British establish a penal colony in the Andaman and Nicobar (A&N) islands, where many Indian revolutionaries and freedom fighters were incarcerated for life.
- Recent reports regarding the government’s heightened security focus on these strategic islands are to be welcomed, especially because in the past, these islands nearly slipped from India’s grasp.

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| <p>Liberated by INA</p> <ul style="list-style-type: none"> • In February 1942, just a month after the fall of Singapore, the islands were occupied by the Japanese as a prospective springboard for the invasion of India. • Towards the end of 1943, they became the first part of India to be “liberated” from British rule, when Netaji Subhas Chandra Bose visited Port Blair and hoisted the INA tricolour. • However, this was mere symbolism because the British reoccupied the A&N after the Japanese surrender in 1945. • After independence, island came o indian part <p>After Kargil War</p> <ul style="list-style-type: none"> • In 2001, the post-Kargil War security review saw the establishment of India's first joint/unified operational command — the Andaman Nicobar Command (ANC) in Port Blair. • Only 31 of the archipelago's 836 islands and islets are inhabited. • This means there is a possibility of surreptitious occupation — a la “Kargil heights” — by a covetous neighbour. | <p>A theatre command</p> <ul style="list-style-type: none"> • To obviate the possibility of intrusions by state and non-state entities, ANC will need to maintain three-dimensional maritime domain awareness through networked assets, including radars, aircraft, satellites and unmanned vehicles. • In context of the severe disruption and re-routing of shipping, occasioned by the Houthi attacks in the Red Sea <ul style="list-style-type: none"> ◦ The Malacca Strait — more than 90,000 merchant ships carrying about 30 per cent of the world's traded goods pass through it every year ◦ Presents a challenge as well as a latent opportunity for India. <p>Importance of the chain of islands</p> <ul style="list-style-type: none"> • The Andaman and Nicobar Islands are of great strategic importance since they straddle one of the busiest sea lanes in the world • It give India the reach to monitor the flow of traffic from the South China Sea (Pacific Ocean) to the Andaman Sea (Indian Ocean) via the Strait of Malacca that's key to trade and oil shipments in the Indo-Pacific. • Although the surface area of these islands is only 8,300 sq km, they add 300,000 sq km to India's exclusive economic zone with the promise of undersea hydrocarbon and mineral deposits. |
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Conclusion

- One hopes that the reported security infrastructure upgradation is part of a cohesive strategy, which aims to convert the A&N islands into a formidable maritime bastion that will not only extend India's defensive perimeter but also bestow the ability to project power or extend a hand of friendship to maritime neighbours.

142. India-China border dispute: Beyond the hype, the reality of the LAC

Context:

- Ladakh certainly has been and will continue to remain a serious flashpoint.
- There are no borders here except a 1,597 km-long Line of Actual Control (LAC), a notional demarcation separating India and China since 1962. Even the LAC is not well defined.

Key highlights

- Both countries have differing perceptions.
- The patrolling is done till 65 earmarked Patrol Points (PPs) stretching from Karakoram to Chumur.
- The recent dispute points occurred at PP9, 10, 11, 12, 12A and 13 in Depsang, PP14 in Galwan, PP15 and PP16 in Hot Springs/ Chang Chenmo, and PP17 and 17A in Gogra.

Chushul-Pangong Sector

- In the Chushul-Pangong sector, the situation in the Sirijap range on the north bank of Pangong, where Finger series 1 to 8 jut out, is stable.
- In May 2020, the People's Liberation Army (PLA) entered the Finger 3-4 area to prevent Indian troops from patrolling.
- After the disengagement agreement in February 2021, the status quo prior to May 2020 is being restored.

Kailash Range

- In the Kailash range, the PLA's provocative move in early September 2020 to capture Nyanlung Yokma/Gongma or the Kailash Heights, at an altitude of 15,000 feet located between Pangong Tso and Spanggur Gap
 - was foiled by the Indian Army in a major preemptive strategic manoeuvring.

Chang Chenmo Valley

- PLA's intrusions in Galwan Valley, Changlung Nalla, Hot Springs and Kongrung Nalla of Chang Chenmo Valley, where it had created area denial for Indian troops, are also relatively peaceful now.
- The situation in the Gogra-Hot Springs area remained volatile until September 8, 2022, when both sides agreed to disengage.

Depsang and Demchok

- Currently, only Depsang and Demchok remain points of friction, predating the 2020 stand-off.
- The Shyam Saran Report of August 2013 made a chilling revelation of India having lost 640 sq km area due to "area denial" by the PLA.
- Experts suggest that the Chinese are in control of 600-800 sq km of the southern half of Depsang Plains.
 - complete disengagement has been elusive.

Infrastructure upgrades

- Earlier, the Chinese bullied and coerced India because of the latter's lax attitude and grabbed a chunk of Ladakh territory between the 1960s and 1990s.
- government has fast-tracked the connectivity projects, including the 260 km long Shyok-DBO road that was completed on a war footing.
- DBO can be reached from Dorbuk in eight hours now, which gives Indian troops a major advantage in the difficult terrain.

Conclusion

- Technically, there has been no intrusion on Indian side of the LAC.
- The discrepancies have occurred only in the grey-zone patrolling areas due to differences in LAC perception.
- Both sides should grasp fresh opportunities to revive the stalled process of clarifying the LAC after the new government is formed in New Delhi.



143. Decoding the judgment on Jim Corbett

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.
News:

- In its ruling in March, the Supreme Court brought to light the unholy nexus of politicians, forest officials, and local contractors responsible for the felling of 6,000 trees in the Jim Corbett National Park in Uttarakhand.

Key highlights

- despite conservation goals receiving priority through policies and laws including the Wildlife Protection Act, 1972, Project Tiger, and the Forest (Conservation) Act, 1980 the state's main interest remains increasing revenue.
- The illegal destruction of trees in Jim Corbett can be seen in contravention of the 1983 Supreme Court judgment in Rural Litigation and Entitlement Kendra vs. State of Uttar Pradesh
 - Which said that "economic growth cannot be achieved at the cost of environmental destruction and people's right to healthy environment."
- National and State forest authorities have leaned on ecotourism to simultaneously attain conservation goals, enhance revenue, and improve the livelihoods of local people.
- the Supreme Court said that the approach must be of eco-centrism and not anthropocentrism.
- The court directed the banning of tiger safaris in core areas and the constitution of a committee to explore the feasibility of permitting tiger safaris in peripheral areas in not just Jim Corbett, but across India.
- It also disagreed with the 2019 guidelines of the National Tiger Conservation Authority permitting a tiger safari on the lines of a zoo in a national park.
- The court stressed that tigers should be sourced from the same landscape as where the safari is being conducted and not outside the tiger reserve.
- According to a report of the Centre for Science and Environment in 2021, India has lost 90% of the area under its four biodiversity hotspots.

What the court missed

- Recovering the cost of restoration does not amount to necessarily recovering the loss of the ability of the environment to provide goods and services.
- In India, the framework of valuation which predated the T.N. Godavarman case (1996) was aimed at replacing lost natural forest with compensatory plantations.
- The two choices which are supported legally and institutionally and serve as the background for the valuation of forest land in India are now compensatory afforestation levy and net present value (NPV).

Conclusion

- The Court could have set a precedent by saying that ecosystem services are more important and generate more revenue than eco-tourism or raised the need of putting in place a precise law and policy relating to ecosystem services. T
- he reasoning provided by the International Court of Justice (ICJ) in Costa Rica v. Nicaragua (2018) could have been used to understand the methodologies in evaluating damage to the environment.

144. India must adopt holistic approaches to handle human-wildlife conflicts

Context:

- India, with its rich biodiversity and burgeoning human population, grapples with a significant challenge: human-animal conflict.
- As habitats shrink and human activities encroach upon wildlife territories, confrontations between humans and animals, mainly tigers and elephants, have escalated, posing threats to both communities.
- It emerges as a major taking point in states like Kerala ahead of the Lok Sabha election. Understanding and mitigating this conflict is crucial for fostering coexistence and preserving India's natural heritage.

Key highlights

- **Population Dynamics:** India hosts significant populations of wild elephants and tigers, leading to frequent encounters with humans, resulting in fatalities on both sides.
- **Habitat Fragmentation:** Urbanization, agricultural expansion, and infrastructural development fragment natural habitats, forcing wildlife to encroach upon human settlements.
- **Economic Impacts:** Crop depredation and livestock predation lead to economic losses for farmers, exacerbating tensions between communities and wildlife.

Dimension - Impacts and Challenges

- **Economic Hardships:** Crop damage and loss of livestock affect the livelihoods of communities living near wildlife habitats.
- **Psychological Distress:** Fear and anxiety prevail among affected communities, perpetuating animosity towards wildlife.
- **Conservation Dilemma:** Balancing conservation efforts with human livelihood needs presents a complex dilemma, often leading to conflicts of interest.

Dimension - Required Strategies

- **Comprehensive Approach:** Mitigating human-wildlife conflicts requires a multi-pronged strategy involving proactive measures and community involvement.
- **Sustainable Solutions:** Innovative deterrent methods such as electric fencing and beehive fences can mitigate conflicts without harming wildlife.
- **Community Empowerment:** Investing in community-based conservation initiatives and alternative livelihood options can foster tolerance towards wildlife and alleviate socio-economic burdens.

THE SIX ELEMENTS OF HWC MANAGEMENT

- **Understanding the conflict:** Researching all aspects of the conflict profile to understand the context for conflict in any given situation
- **Mitigation:** Reducing the impacts of HWC after it occurs (compensation, insurance, alternative livelihoods, etc.)
- **Response:** Addressing an ongoing HWC incident (response teams, reporting mechanisms, standard operating procedures, etc.)
- **Prevention:** Stopping or preventing HWC before it occurs (fences, early detection tools, safe working environments, etc.)
- **Policy:** Enabling HWC management through protocols, principles, provisions, and measures stipulated in legislation and undertaken by authorities (international and national law, national and local HWC management plans, spatial plans, etc.)
- **Monitoring:** Measuring the performance and effectiveness of HWC management interventions over time (data collection, information sharing, adaptive management, etc.)

145. How are Hydrocarbons extracted from under the ground

Context :

- The most common forms in which these hydrocarbons exist in **subterranean rock formations are natural gas, coal, crude oil, and petroleum.**
- They are usually found in reservoirs underground created when a more resistant rock type overlays a less resistant one,
 - In effect creating a lid that causes hydrocarbons to accumulate below it.

Source of hydrocarbon

- Such formations are important because otherwise, the hydrocarbons would float to the surface and dissipate.
- The primary source of hydrocarbons in this rocky underground is called **kerogen - lumps of organic matter.**
- Kerogen can be deposited from three possible sources: as the remains of a lake (lacustrine), of a larger marine ecosystem, or of a terrestrial ecosystem.
- Rocks surrounding the kerogen can become warmer, more compactified over time, exerting forces on the kerogen that cause it to break down.
- Lacustrine kerogen yields waxy oils; marine kerogen, oil and gas; and terrestrial kerogen, light oils, gas, and coal.

Source rock,

- **The rock containing the kerogen is called the source rock,** and petroleum geologists are tasked with looking for it
 - Understanding its geophysical and thermal characteristics, and characterising its ability to yield hydrocarbons.
- They also undertake modelling activities informed by observational data and dig smaller exploration wells to estimate the amount of hydrocarbons there, and report it to the relevant regulatory body.
- Once a particular location is determined to be a profitable source of hydrocarbons, drilling can begin.

146. India's Arctic imperative

Context:

- Himadri, India's research station in the International Arctic Research Base at Svalbard in Norway, had until then hosted missions only in the summer.
- A winter expedition entails living in the intense cold (as low as -15 degrees Celsius) after a period of rigorous acclimatisation.

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| <p>Growing interest in the Arctic</p> <ul style="list-style-type: none"> • For over a decade, India's National Centre for Polar and Ocean Research saw no reason for a winter mission to the Arctic. • What changed Indian policy, ostensibly, was scientific data showing that the Arctic was warming faster than previously thought. • New Delhi is seized of the opening up of Arctic Sea routes, primarily the Northern Sea Route, and would like to route Indian trade through the region. • This might help India reduce costs for shipping companies along with time, fuel, and security costs for transmitting goods. • China's growing investments in the Arctic have raised concern in India. • Russia's decision to grant China expanded access to the Northern Sea Route has deepened this anxiety. • India involvement in the region goes back to 1920, with the signing of the Svalbard Treaty in Paris. • In 2007, India undertook its first research mission to investigate Arctic microbiology, atmospheric sciences, and geology. • A year later, India became the only developing country, aside from China, to establish an Arctic research base. • After being granted 'observer' status by the Arctic Council in 2013, India commissioned a multi-sensor moored observatory in Svalbard in 2014 and an atmospheric laboratory in 2016. • The work at these stations focuses on examining Arctic ice systems and glaciers and the consequences of Arctic melt on the Himalayas and the Indian monsoon. | <p>Potential for collaboration</p> <ul style="list-style-type: none"> • Norway, the present chair of the Arctic Council, has close ties with India. • Since the late 1980s, the two countries have collaborated to investigate changing conditions in the Arctic and Antarctic, as well as their impact on South Asia. • India's present policy is to cooperate with Arctic countries in green energy, and green and clean industries, as a way of bolstering its 'responsible stakeholder' credentials. • With Denmark and Finland, for instance, Indian collaboration has come in areas such as waste management, pollution control, renewable energy, and green technology. • While the Indian government seems keen to benefit from seabed mining and resource exploitation in the Arctic, it ought to unequivocally back a sustainable mode of extraction. • These are two of the six pillars that comprise India's Arctic Policy (the other four being economic and human development; transportation and connectivity; governance and international cooperation; and national capacity building). |
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Conclusion

- India would perhaps still look to explore economic opportunities in the Arctic.
- Norway could, then, help India design a sustainable policy that accommodates the needs of both the scientific community and industry.
- As global geopolitical tensions are also mounting in the Arctic, finding constructive and non-sensitive ways to alleviate pressure will be in the interest of both India and Norway.

147. Fertility levels drop below one in many Asian nations

Context:

- Many countries in East and Southeast Asia are in the middle of a population crisis, with fewer births every year and record-low fertility rates.

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| <p>Asia's Shrinking Families: A Looming Challenge</p> <ul style="list-style-type: none"> • Problem: Birth rates in East and Southeast Asia are plummeting, leading to a population crisis. • Hospitals are even shutting down maternity wards due to lack of demand. <p>What Changed?</p> <ul style="list-style-type: none"> • Back in the 1950s, families in this region had many children. • Now, countries like South Korea and Singapore have fertility rates below 1 child per woman, meaning people aren't having enough babies to replace themselves. | <p>Why the Decline? There are several reasons:</p> <ul style="list-style-type: none"> • Changing Priorities: People are choosing to stay single, have fewer children, or even no children at all. Raising kids is expensive! • Policy Echoes: Past family planning policies may have discouraged larger families, and those attitudes linger. • Economic Pressures: Women have more career opportunities, but marriage rates are dropping. The cost of raising kids adds another layer of stress. • The Impact: This shrinking population is aging rapidly. • There will be fewer young people to support a growing number of elderly, straining healthcare and social security systems. • Governments are spending a lot to try and get people to have more babies, but it's unclear if it will work. |
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Way forward

- **Smarter Policies:** Governments need to address the root causes of low birth rates.
- **Support Systems:** Affordable childcare, parental leave, and financial aid can ease the burden of raising children.

- **Work-Life Balance:** Flexible work options and a healthy work-life balance can help people manage both careers and families.
- **Cultural Shift:** We need to find ways to value families while adapting to changing social and economic realities.
- This situation requires a multi-pronged approach to ensure a sustainable future for these Asian nations

148. Tamil Nadu's decentralised industrialisation model

Context:

- Tamil Nadu, which votes on April 19, is India's No.1 state in terms of economic complexity, measured by the diversity of its gross domestic product (GDP) and employment profile.

| Key highlights | Tamil Nadu's economic boom has two key ingredients: |
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| <ul style="list-style-type: none"> • TNs lower dependence on agriculture is matched by the higher shares of industry, services and construction in its economy relative to all-India. • About 45.3% of TN's farm GVA comes from livestock subsector (the highest) which surpasses all-India average of 30.2%. • It is home to India's largest private dairy company (Hatsun Agro Product), broiler enterprise (Suguna Foods), egg processor (SKM Group) and "egg capital" (Namakkal). | <ul style="list-style-type: none"> • Cluster Power: Instead of giant factories, the state has focused on building clusters of smaller businesses specializing in specific industries. • a team effort - companies in a cluster like Tirupur (famous for knitwear) support each other's growth. • This approach has created jobs in smaller towns and villages, giving people options beyond farming. • For instance, Tirupur's thriving knitwear industry employs millions, attracting workers from other states too. • Homegrown Hustle: The driving force behind this isn't big corporations, but local entrepreneurs. • Many come from farming or small business backgrounds, creating successful brands like Hatsun (known for Arun ice-cream and Arokya milk). • This "grassroots entrepreneurship," combined with the state's investments in education and healthcare, has likely fueled Tamil Nadu's success in diversifying its economy beyond agriculture. |

SECTOR-WISE SHARES OF GVA & WORKFORCE: 2022-23 (%)

| | Gross Value Added* | | Workforce | |
|--------------|--------------------|------------|-----------|------------|
| | All-India | Tamil Nadu | All-India | Tamil Nadu |
| Agriculture | 18.19 | 12.55 | 45.76 | 28.87 |
| Industry** | 18.80 | 22.69 | 12.27 | 17.88 |
| Construction | 8.84 | 11.70 | 13.03 | 18.04 |
| Services | 54.18 | 53.05 | 28.94 | 35.21 |

*At Basic Prices; ** Includes manufacturing, mining, electricity and utilities. GVA is GDP net of product taxes and subsidies. Source: National Accounts Statistics and Periodic Labour Force Survey.

149. Reforms needed in the voting process

Context :

- The Supreme Court has decided to hear petitions seeking 100% cross-verification of the Voter Verifiable Paper Audit Trail (VVPAT) slips with the vote count as per Electronic Voting Machines (EVMs).

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| <p>What is the history of voting process?</p> <ul style="list-style-type: none"> • In the first two general elections of 1952 and 1957, a separate box was placed for each candidate with their election symbol. • Thereafter from the third election, the ballot paper with names of candidates and their symbols was introduced with voters putting a stamp on the candidate of their choice. <p>Introduction of EVM</p> <ul style="list-style-type: none"> • The EVM was introduced on a trial basis in 1982 in the Assembly constituency of Paravur in Kerala. • In Subramanian Swamy versus Election Commission of India (2013), the Supreme Court ruled that a paper trail is an indispensable requirement for free and fair elections. • The 2019 elections had EVMs backed with 100% VVPAT in all constituencies. <p>What are international practices?</p> <ul style="list-style-type: none"> • Many western democracies continue to have paper ballots for their elections. Countries like England, France, The Netherlands and the U.S. have discontinued the use of EVMs for national or federal elections, after trials in the last two decades. • In Germany, the Supreme Court of the country declared the use of EVMs in elections as unconstitutional in 2009. • Some countries like Brazil, however, use EVMs for their elections. | <p>Benefit of EVM</p> <ul style="list-style-type: none"> • The EVM has virtually eradicated booth capturing by limiting the rate of vote casting to four votes a minute and thus significantly increasing the time required for stuffing false votes. • invalid votes that were a bane of paper ballots and also a bone of contention during the counting process have been eliminated through EVMs. • considering the size of our electorate which is close to one billion, the use of EVMs is eco-friendly as it reduces the consumption of paper. • Finally, it provides administrative convenience for the polling officers on the day of the poll and has made the counting process faster and error-free. <p>How to uphold the integrity of EVM?</p> <ul style="list-style-type: none"> • These include random allocation of EVMs to booths before polls • conduct of a mock poll to display the correctness of EVMs and VVPAT before commencement of the actual poll • the serial number of EVMs along with total votes polled was shared with agents of candidates to verify the same at the time of counting of votes. <p>Allegations</p> <ul style="list-style-type: none"> • The most repeated allegation is that EVMs are susceptible to hacking as it is an electronic device. • The sample size for matching of the EVM count with VVPAT slips at present is five per assembly constituency/segment. • This is not based on any scientific criteria and may fail to detect defective EVMs during counting. |
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Way forward

- The sample for matching of EVM count and VVPAT slips should be decided in a scientific manner by dividing each State into large regions as suggested by experts.
- In case of even a single error, the VVPAT slips should be counted fully for the concerned region and form the basis for results.
- This would instil a statistically significant confidence in the counting process.
- Further, in order to provide a degree of cover for voters at the booth level, 'totaliser' machines can be introduced that would aggregate votes in 15-20 EVMs before revealing the candidate-wise count.

150. What's behind heavy rainfall in Dubai

News:

- The United Arab Emirates (UAE) recorded the **heaviest rain ever after a severe thunderstorm hit the country recently**,
- According to the state-run WAM news agency, the rain was "a historic weather event" that surpassed "anything documented since the start of data collection in 1949" – that was before the UAE was established in 1971.

Key highlights

- Heavy rains are unusual in the UAE, which is an arid, Arabian Peninsula country. However, they occasionally occur in the region during cooler winter months.
- Rain is uncommon, although it can happen during the cooler winter.
- A storm system moving across the region is the main culprit.
- There's also a chance cloud seeding, a technique to make rain clouds release more water, might have played a role.

Could climate change be involved?

- Rising temperatures worldwide can make the atmosphere hold more moisture, leading to more intense storms.
- But it's tough to directly link any single weather event to climate change because other things like El Niño and La Niña also affect weather patterns.
- While the average global temperature on the Earth has increased by at least 1.1 degree Celsius since 1850, the UAE has witnessed an increase of almost 1.5 degree Celsius in the past 60 years.
- The increase in temperatures is mainly caused by the rise of heat-trapping greenhouse gas (GHG) emissions since the Industrial Revolution.

IPCC Report

- the Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report released in 2021
 - Said human-caused rise in greenhouse gases has increased the frequency and intensity of extreme weather events.
- Given the population growth and urbanisation in many parts of Gulf is also one of factor behind change in climate pattern

CLOUD SEEDING

- Clouds need tiny water or ice droplets called nuclei to make rain.
- The weather modification method uses planes and ground-based cannons to shoot particles into clouds making more nuclei
 - attracting moisture that falls as snow and rain.
- Usually silver iodide is used, but it can also be dry ice and other materials.
- The method, first pioneered in the 1940s, became popular in the U.S. West starting in the 1960s, mostly for snow.
- It can't create water from a clear sky - particles must be shot into a storm cloud that already holds moisture to get it to fall, or to fall more than it otherwise would naturally.

151. India's nuanced approach in the South China Sea

News:

- Recently, India's External Affairs Minister, articulated, in a joint statement during his visit to Manila, India's full support for the Philippines in upholding its national sovereignty.

Key highlights

- A joint statement in 2023 between New Delhi and Manila had also called for China to adhere to the rules-based maritime order and acknowledge the International Court of Justice ruling of 2016 in favour of Manila.
- New Delhi's position on the South China Sea has changed significantly in recent years,

A policy evolution

- New Delhi's engagement with the region was initially primarily economic, driven by its Look East Policy
 - which aimed to enhance economic integration with Southeast Asia and the imperative to secure energy resources to fuel its growing economy.
- The transformation of India's policy orientation from Look East to Act East under Prime Minister administration has marked a shift towards a more strategic and active engagement with the Indo-Pacific region.
- This policy evolution reflects India's acknowledgment of the changing geopolitical landscape
- India has also simultaneously strengthened its own capacities through forward positioning, mission-based deployments, reinforced maritime domain awareness, and deep-water maritime facilities.

India's complex ties with China

- The two countries have a long history of border disputes which have intensified since the Galwan Valley incident of 2020
 - With Beijing's periodic incursions into India's territory and, most recently, even renaming Indian villages in Arunachal Pradesh.
- India sending a frontline warship to the South China Sea in a demonstration of India's capability for asymmetric deterrence.
- India's strategic engagements, including regular naval exercises and the strengthening of military cooperation with Southeast Asian nations, serve dual purposes:
 - they underscore India's commitment to regional security
 - act as a counter to China's unlawful assertions.

The ASEAN factor

- The disputes in the South China Sea, primarily involving China and several Association of Southeast Asian Nations (ASEAN) countries
- As a responsible stakeholder in the Indo-Pacific, India can no longer shy away from taking unambiguous positions on matters of such critical importance.
- The ASEAN centrality in India's Indo-Pacific strategy also makes it imperative for India to buttress the ASEAN position

Conclusion

- India's nuanced approach in the South China Sea, therefore, is emblematic of its broader strategy aiming to safeguard its interests while contributing to a collective effort to maintain peace, stability, and respect for international law in the Indo-Pacific region.

152. Why have private investments dropped?

News:

- Private investments as measured by Gross Fixed Capital Formation are unable to pick up pace and have been on a steady decline since 2011-12.
- The Indian economy is plagued with this issue and the government hopes for large Indian corporations to step in and ramp up investment.

Highlights:

- The economic reforms of late 1980s and early 1990s led to a significant rise in private investment which in turn improved confidence of the private sector.
- Meanwhile, private investment has largely remained either slightly below or above 10% of GDP.
- Public investment as a percentage of GDP, on the other hand, steadily rose from less than 3% of GDP in 1950-51 to overtake private investment as a percentage of GDP in the early 1980s.
- It, however, began to drop post-liberalisation with private investment taking on the leading role in fixed capital formation.
- The growth in private investment lasted until the global financial crisis of 2007-08.
- It rose from around 10% of GDP in the 1980s to around 27% in 2007-08.
- From 2011-12 onwards, however, private investment began to drop and hit a low of 19.6% of the GDP in 2020-21.

Reasons of steady decline in Private Investment:

- Several economists blame low private consumption expenditure for the failure of private investments to pick up especially after the pandemic.
 - They state that strong consumption spending is required to give businesses confidence.
 - Sufficient demand for the output can be garnered once they decide to invest in building fixed capital.
- However, historically, there has been evidence of an inverse relationship between private consumption and private investment in India.
- The inverse relationship between consumption and investment is likely because the money that is allocated either by government or by private businesses towards savings and investment, comes at the cost of lower consumption expenditure.
- Other economists also believe, over the last decade, structural problems like unfavorable government policy and policy uncertainty may have caused the fall in private investment as a percentage of GDP.

Gross Fixed Capital Formation (GFCF):

- GFCF refers to the growth in the size of fixed capital in an economy.
- Fixed capital includes things such as buildings and machinery, which require investment to be created
- Private GFCF can serve to denote rough value of how much the private sector in an economy is willing to invest.
- GFCF also includes capital formation as a result of investment by the government.
- GFCF is important because fixed capital can help to boost economic growth and improve living standards.

153. Permanent status, Palestine should be granted full-member status of the UN for a start

Context:

- The resolution proposed by Algeria on granting Palestine full-member status at the UN, was vetoed by the USA.
- Even though the state of Palestine received permanent UN observer status in 2012, and temporary powers of a full member in 2019 it is yet to be recognised as a full member.
- **Israel became a full member of the UN in 1949.**

Israel- Palestine Conflict:

- The present conflict has its roots in the 20th century.
- The British government in the **Balfour Declaration of 1917** announced “the establishment in Palestine a national home for the **Jewish People**”.
 - This declaration was in the hope to gain Jewish support for World War I.
- The Arabs in Palestine opposed this declaration over the concerns of subjugation for the Palestinians.
- A colony was established by the British in Palestine after the First World War to rule the area until the Palestinians were ready to govern themselves.
 - This was called Mandatory Palestine as it was according to the League of Nations mandate.
- During the course of World War II, several **Jews escaped Europe from the Holocaust** and were brought to Palestine.
- Over the years tension between Israel and Palestine has persisted with some countries siding for a two-state solution.

United Nations Security Council:

- The United Nations Charter established six major organs of the UN, one of which was the United Nations Security Council.
- UNSC has the charge of maintaining international peace and security.
- The council has **15 members**:
 - The five permanent members - United States, the Russian Federation, France, China and the United Kingdom.
 - Ten non-permanent members including India (elected for two-year terms).
- The council is headquartered at New York.
- The resolutions of the UN Security Council are binding on all member states.

154. Preparing India for water stress, climate resilience

News:

- As the India Meteorological Department (IMD) predicts a hotter summer and longer heat waves from April to June India must also prepare for water stress.
- This Earth Day (April 22) should be a wake-up call.

Key highlights

- India houses 18% of the world’s population on 2.4% of the earth’s surface area and has just 4% of global freshwater resources.
- Nearly half its rivers are polluted, and 150 of its primary reservoirs are currently at just 38% of their total live storage capacity.
- Further, it is the largest user of groundwater in the world.
- And three-quarters of India’s districts are hotspots for extreme climate events.
- Against this backdrop, India has invested heavily in disaster preparedness, but the nature of climatic shocks will continue to change.

Water flows through the economy

- Water connects our hydrological, food, and energy systems, impacting millions of people.
- But this sector that employs the most is increasingly climate vulnerable.
- The India Employment Report 2024 shows that agriculture still employs around 45% of the population and absorbs most of the country’s labour force.
- At the same time, a Council on Energy, Environment and Water (CEEW) study showed that monsoon rainfall is changing patterns in India,
- But this increased rainfall is frequently coming from short-duration, heavy rain, affecting crop sowing, irrigation and harvesting.
- Making the agricultural sector more resilient to climatic and water stresses matters for jobs, growth and sustainability.
- Green hydrogen, seen as a crucial pillar for decarbonising industry and long-distance transport sectors, is produced using water and electricity sourced from renewables.

Disaster

- According to the UN World Water Development Report 2020, almost 75% of natural disasters in the last two decades were related to water.
- According to CEEW analysis, between 1970 and 2019, the number of flood associated events (such as landslides, thunderstorms and cloud bursts) increased by up to 20 times in India.
- Freshwater, one of the nine planetary boundaries, has been transgressed (2023 study).

The ingredients of water security

- Attaining this water security will need a mix of the right policies, judicious use of water, including reuse of urban wastewater, and finance for adapting to a changing world.
- First, effective water governance needs policies that recognise its interactions with food and energy systems.
- However, CEEW and International Water Management Institute (IWMI) analysis shows that although India has adopted several policies, most do not recognise this nexus while planning or at the implementation stage.
- The National Water Mission targets increasing water use efficiency by 20% by 2025.
- Similarly, the Atal Mission on Rejuvenation and Urban Transformation (AMRUT) 2.0 calls for reducing non-revenue water, which is lost before it reaches the end user, to less than 20% in urban local bodies.
- Market innovations such as India’s Green Credit Programme have the potential to partially bridge the adaptation funding gap by encouraging investment in wastewater treatment
 - desalination plants, and agricultural extension services.
- Considering the investments in India under Corporate Social Responsibility (between 2014-15 and 2020-21), there is a potential to leverage about ₹12,000 crore worth of investments every year.

Conclusion

- It is possible to make a start by pursuing more coherence in water, energy and climate policies, creating data-driven baselines to increase water savings, and enabling new financial instruments and markets for adaptation investments. A water-secure economy is the first step towards a climate-resilient one.

155. A lesson from Taiwan in quake resilience

News:

- Recently, **Taiwan** was struck by an **earthquake of 7.4 magnitude**.
- In the last two decades, major earthquakes have occurred in many parts of the world including Indonesia, Japan, China, Italy, Nepal, Afghanistan, Pakistan, Ecuador, Mexico, Morocco, and the Turkey-Syria border.

Highlights:

- The spatial distribution of earthquakes is explained by the **theory of plate tectonics**,
 - which explains how the Earth's outermost layer, the **lithosphere, is broken into 15 major plates** which are constantly moving relative to each other.
 - This is why powerful earthquakes are concentrated along **convergent plate boundaries like the Himalayas**, a tectonic product of the convergence of the Indian and Eurasian plates.
- The earthquake in **Nepal in 2015** caused severe devastation in central Nepal, but spared India. The region around Manali in **Himachal Pradesh was struck by an earthquake of magnitude 5.3 recently**.
- Taiwan, which is a country of strong earthquakes.
- It was formed at a **convergent boundary of the Philippine and Eurasian plates** in the western Pacific Ocean.
 - The Philippine Sea plate is moving northwest towards the Eurasian plate, which is faster than the motion of the Indian plate.
- Today, Taiwan's earthquake preparedness is among the most advanced in the world.
 - Taiwan has the **most advanced earthquake-monitoring network** and early warning systems.
 - **Widespread awareness** campaigns and **safety drills** on earthquakes along with the **government's constant update on earthquake safety requirements** have improved the public's understanding of earthquake risks.
- Taiwan has been able to reach **sound scientific judgements** based on how severe the shaking would be in each location.
 - Taiwan's most iconic building, **Taipei 101**, escaped damage during the latest earthquake.

What India can do:

- As India is going through a **major phase of infrastructural expansion** in many tectonically unstable regions, earthquake safety should be of particular concern. All infrastructural projects must comply with seismic safety regulations.
- The Taiwan earthquake provides important lessons for India.
 - These include following **seismic codes, constructing safer engineered structures, and overcoming inadequacies** in the enforcement and non-compliance of seismic codes.
 - In some parts of India, **traditional architectural styles** possessing earthquake resistivity can be rediscovered and encouraged.

156. Restoring earth's right to 'good health'

News:

- The European Court of Human Rights found the Government of Switzerland guilty of violating the rights of a group of women senior citizens of a Swiss civil society group,
- It noted that the government's actions to curb emissions were inadequate and had failed to protect women against the impacts of climate change.

Highlights:

- The decision which is first of its kind in the world highlights how the **climate crisis** is increasingly becoming a **human rights crisis**.
- A month ago a similar watershed moment happened in India, when the Supreme Court of India ruled that people have a **right 'to be free from the adverse impacts of climate change'**, citing **Articles 14 and 21 of the Indian Constitution**.
- The latest State of the Global Climate Report by the **World Meteorological Organization** revealed that most climate change indicators reached record levels in 2023.
 - **It confirmed 2023 to be the hottest year since global recording of temperatures was started.**
 - **Records were also broken for ocean heat, sea level rise, Antarctic Sea ice loss and glacier retreat.**
- The health of the planet is under extreme stress, impacting people's **right to live a healthy life**.
- India has made rapid strides in decoupling emissions from economic growth. It has even achieved two of its **Nationally Determined Contribution (NDC) targets**,
 - **reducing the emissions intensity of its GDP by 33% to 35% from 2005 level,**
 - **achieving 40% cumulative electric power installed capacity from non-fossil fuel sources, well ahead of the target year of 2030.**
- However, the country remains highly vulnerable to climate change. **More than 80% of its population lives in districts that are at risk of climate-induced disasters.**

Approaches to avert climate crisis:

- Adoption of an overarching regulation on climate change. While India has several laws and regulations related to tackling climate change, **a framework law** can help strengthen climate governance.
- India's localisation model for the **Sustainable Development Goals (SDGs)** has successfully integrated the SDGs into local-level planning through multi-tiered and multi-stakeholder processes.
 - **Another pathway can build on inter-ministerial and inter-sectoral approaches just like one health initiative.**
- **Empower citizen groups and civil society organisations** in fostering a rights-based dialogue on environment, biodiversity and climate action.

157. Towards a less poor and more equal country

Context :

- In March, World Inequality Lab, a global research centre focused on inequality and public policies, published a working paper titled, 'Income and Wealth Inequality in India, 1922-2023: The Rise of the Billionaire Raj'

Key highlights

Income and wealth inequality

- By 2022-23, the report states, 22.6% of India's national income went to just the top 1% in the country, the highest in the last 100 years.
- And just the top 0.1% of the population earned nearly 10% of the national income in India.
- The share of wealth among the top 10% increased from 45% in 1961 to 65% in 2022-23.
- India's wealth inequality is not as extreme as Brazil and South Africa where the top 10% hold 85.6% and 79.7% of the national wealth, respectively.
- However, its wealth concentration increased threefold between 1961 and 2023.
- Additionally, as India's income inequality is among the highest in the world, even higher than South Africa, Brazil and the U.S., it will only add to the wealth inequality.
- inequality began increasing with the beginnings of liberalisation in the 1980s, and faster after the 1991 economic reforms in India.
- Here, we would like to emphasise that the twin objectives of high economic growth and reduction of inequality can only be achieved with improvements in human development and poverty reduction.
- At the national level, the States that sustained high growth over three decades (over 7% GSDP per year) were relatively advanced in human development.
 - These include Kerala, Tamil Nadu, Andhra Pradesh, and Karnataka in the south; Maharashtra and Gujarat in the west; and Punjab and Delhi in the north.
- States that are relatively backward in the Human Development Index ranking include Jharkhand, Chhattisgarh, Bihar, Madhya Pradesh, Odisha, Uttar Pradesh, and Rajasthan.
- These States were only able to register a growth rate of less than 5% per annum post-liberalisation.

Human development

- The Human Development Report (HDR) 2023-2024 ranked India 134 out of 193 countries.
- India is now the fifth largest economy but it still ranks lower than Sri Lanka, Bhutan, and Bangladesh in human development.
- Its economic growth has not translated into growth in human development.
- The poor should not have to wait for the benefits of economic growth to trickle down; human development should be given priority in promoting inclusive growth.
- As per the HDR 2023-2024, India's score comes down by 31.1% if we account for economic inequality.
- The extent of economic inequality is such that it cannot be overcome by the Pradhan Mantri Garib Kalyan Anna Yojana, which provides a few kilogrammes of free foodgrains to about 81.35 crore beneficiaries.
- Sops without jobs cannot be the basis for sustained and inclusive growth.
- As the paper says, "It is unclear how long such inequality levels can sustain without major social and political upheaval".

158. An overview of the PMAY-U scheme

Context :

- As the current Union government completes two terms, one of its flagship programmes was Housing For All (HfA) by 2022, both in urban and rural areas, planned under the PMAY (Pradhan Mantri Awas Yojana) scheme in 2015.

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| <p>What is the PMAY scheme?</p> <ul style="list-style-type: none"> The declared objectives of the scheme included : <ul style="list-style-type: none"> rehabilitation of slum dwellers with private developers' participation promotion of affordable housing for the weaker sections through Credit Linked Subsidy Schemes (CLSS) affordable housing in partnership with public and private sectors subsidy for Beneficiary-led Construction (BLC). <p>How has the scheme panned out?</p> <ul style="list-style-type: none"> Even though two more years have passed since the supposed completion of the scheme, HfA remains a distant reality. In August 2022, the government approved the continuation of the PMAY-Urban (PMAY-U) up to December 31, 2024 <ul style="list-style-type: none"> for the completion of already sanctioned houses till March 31, 2022. According to a study by the ICRIER, urban housing shortage increased by 54%, from 1.88 crore in 2012 to 2.9 crore in 2018. This means that the vertical that is supposed to meet the largest demand, called in-situ slum redevelopment (ISSR), has failed. According to a PIB press release, under the ISSR, which is the most pressing need in cities, only 2,10,552 houses have been sanctioned for eligible beneficiaries. | <p>What ailed the PMAY?</p> <ul style="list-style-type: none"> The scheme is euphoric in the participation of the private sector in bridging the gap of public investments in social housing. Land was also a major issue. Land registered under airports, railways, forests, etc., was impossible for ISSR. Moreover, plans for ISSR were drawn up by consultants, without any role from the community. Another major hurdle is the dichotomy existing between the city's master plans and PMAY-U. Most of the cities' plans are now being dictated by big consultants who favour large capital-intensive technological solutions. Take for example, the transit-oriented development models being advocated by the Delhi Development Authority in its 2041 master plan. It does not speak about social housing and states that this must come from market forces. In such a scenario, almost all verticals of PMAY fail. The architecture of PMAY does not address the landless and the poor: Around 62% of the houses sanctioned come under the BLC vertical where the government's role is limited to just cost sharing with the beneficiaries. CLSS beneficiaries are supposed to be 21%. In both the above, the government has a limited role with just the provision for providing interest subsidy, whereas land is owned by the beneficiaries. Slum-dwelling families that are to be rehabilitated under ISSR make up just about 2.5% of the total beneficiaries. While the PMAY is a centrally sponsored scheme both the Union and the State governments are supposed to financially contribute to it. It is worth noting that the Centre's contribution to the overall investment expenditure under this scheme is just about 25%, or ₹2.03 lakh crore. The bulk of the money is shelled out by the beneficiary households themselves, that is 60% or ₹4.95 lakh crore. |
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159. On the National Clean Air Programme

Context:

- When the Indian government launched the **National Clean Air Programme (NCAP)** in 2019, it was to cut the concentration of atmospheric Particulate Matter (PM) by **20-30% by 2024, from 2017 levels.**
- This was later **revised to 40% by 2026.**

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| <p>Key highlights</p> <ul style="list-style-type: none"> NCAP's plan to fight air pollution Launched in 2019, NCAP targets cleaner air through city-specific plans. Cities with consistently high pollution levels must create and implement these plans. <p>NCAP's goals:</p> <ul style="list-style-type: none"> Reduce air pollution through stricter controls Improve air quality monitoring across India Raise public awareness about air pollution | <p>NCAP's funding and progress:</p> <ul style="list-style-type: none"> Over 10,000 crore rupees have been allocated for the program. There have been delays in setting up air quality information centers and forecasting systems. Only a portion of the allocated funds have been used so far. While there's been good progress on continuous air monitoring stations, expanding the regular monitoring network is lagging behind. <p>Challenges NCAP faces:</p> <ul style="list-style-type: none"> States haven't implemented the plans consistently. Delays due to unclear procedures and lack of timelines. Other hurdles include bureaucracy and doubts about the effectiveness of some measures. |
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Way forward for NCAP:

- Studies to pinpoint pollution sources are crucial.
- Air quality modeling can help understand the impact of pollution from faraway sources.
- Faster implementation on the ground is essential.
- Overall, achieving cleaner air will be challenging but necessary.
- NCAP's success depends on strong science, smart use of funds, and effective execution.

160. How SC verdict on childcare leave opens up possibilities for women

News:

- Participation of women in the workforce is a matter not just of privilege but a constitutional entitlement” CJI remarked

Key Highlights:

- Article 15** of the Constitution not only restricts **discrimination based on gender but also enables the states to make special provisions for women.**
- The judgment comes at a time when concerns about the **low participation rate of women in the workforce** have been expressed with state and central governments acknowledging the need for **childcare services to bolster women's participation in paid work.**
- The IMF has predicted a possible alleviation of 27 per cent in India's GDP through an equal participation of women in the labour force participation.

Falling labour force participation of women:

- Female workforce participation in India is hardly **37 per cent.**
- PLFS 2022 states that 60 per cent women are self-employed and 53 per cent of the self-employed women work as unpaid family helpers.**
- These are intertwined **outcomes of lack of opportunities in the labour market and opting for flexible employment near or at home to balance both.**
- Longer term trends suggest that female **labour force participation rates in India have been puzzling and wide gender differences in participation rate also persists.**

Empathy Towards Women workers:

- Women have little choice but to **single-handedly manage the burden of housework, care work and paid work.**
- Socially and economically **marginalised women** are more burdened.
 - Working women often **face penalties in the form of marriage and motherhood** as they are often temporarily forced to **withdraw** from the workforce due to these
- The **Constitution enables the state to make special provisions** for women and children.
 - Labour Code on Social Protection, 2020, made crèches a gender-neutral entitlement.**
 - It is a significant step in the right direction. The gender-neutral provision underlined care as a “parental” responsibility.
 - However,** the entitlement was limited to employees of establishments with 50 or more employees.
- Moreover, crèches under the **National Crèches Scheme,** remained underfunded and limited in number and use.
- Under Mission Shakti project, “Palna Scheme”** was introduced. It provided options to the state governments to open standalone crèches or turn Anganwadi centres into crèches.
 - However, there is a need to institutionalise the initiative with a committed budget.

- Care needs to be seen as a collective responsibility of the state, employers, and communities.**
 - Labour markets need to consider women as primary earners and enable them to take up full employment.
 - There is evidence of high female labour force participation in countries where unpaid care work responsibilities are equally shared.
 - A decrease in women's unpaid care work is related to a 10-percentage point increase in women's labour force participation rate.

161. The Indian seafarer deserves better in choppy high seas

Context:

- India submitted three papers to the 111th Session of the International Maritime Organization's (IMO) Legal Committee (LEG).

Key highlights

- These submissions address crucial issues such as seafarers' security, contract terms, and broader maritime security challenges.
- While acknowledging the IMO's efforts to combat maritime fraud, India has called for broader international cooperation to tackle various maritime threats, including
 - Piracy, armed robbery, extremist attacks, regional conflicts, and emerging risks such as drone attacks and the use of maritime weapons.

Sea piracy is back

- Recent pirate attacks off the coast of Somalia, including hijackings, suggest a resurgence of piracy.
- India has also highlighted the impact of unlawful recruitment practices on seafarers' well-being and international trade.
- The maritime industry, vital for global trade, depends heavily on seafarers who often face challenges and risks.

An Indian initiative on rights

- In response, the Indian government and the National Human Rights Commission (NHRC) launched the 'human rights at sea' initiative.
- Reports reveal cases of seafarers being held in foreign jails, stranded in foreign waters, and subjected to illegal detentions.
- 'Human Rights at Sea' has highlighted abuses against Indian seafarers, including 200 held in foreign jails and 65 stranded in Indonesia for 151 days.
- The NHRC has highlighted the challenges of holding ship owners accountable for violations against Indian seafarers operating under foreign registrations
 - to evade taxes and has stressed the need for proactive cooperation among stakeholders and mechanisms to protect human rights in the maritime industry.
- Recent attacks on commercial ships have heightened safety concerns among Indian seafarers, with some considering quitting their jobs due to security fears. This underlines the urgent need for government support and enhanced protection measures.

162. How ISRO used satellite remote-sensing to analyse glacial lakes in Himalayas

Context:

- Earlier this week, the Indian Space Research Organisation (ISRO) released satellite-data-based analysis on expansion of glacial lakes in the catchments of Indian Himalayan River basins.
- This is the latest among a clutch of studies on glacial lakes that have highlighted the risks and impact of glacial lake outburst floods (GLOFs),

What did ISRO's analysis reveal?

- ISRO's analysis looked at satellite data archives spanning the past four decades to assess changes in the glaciated environment.
- Long-term satellite imagery covering the catchments of Indian Himalayan river basins — spread over India, Nepal, Tibet, and Bhutan — is available from 1984 onwards, till 2023.
- ISRO's data has indicated significant expansion in the size of glacial lakes.
- ISRO said that 130 of the 676 lakes are situated in India, in the Indus (65), Ganga (7), and Brahmaputra (58) river basins.
- These lakes have expanded as glaciers are retreating at an ever faster rate due to global warming.

How are glacial lakes formed?

- The movement of glaciers causes erosion and creates depressions in the surrounding topography.
- When they retreat, meltwater starts to accumulate in such depressions, giving birth to glacier lakes.
- ISRO categorised glacial lakes into four broad categories based on how they were formed — moraine-dammed, ice-dammed, erosion-based, and 'others'.
- Erosion-based lakes are formed when water is dammed by erosion-created depressions.
- "GLOFs occur when glacial lakes release large volumes of meltwater due to the failure of natural dam, resulting in sudden and severe flooding downstream.

How is satellite remote-sensing technology used to monitor glacial lakes?

- The monitoring of glacial lakes and their expansion in the Himalayan region is challenging due to the rugged terrain.
- This is where, according to ISRO, satellite remote-sensing technology "proves to be an excellent tool for... monitoring due its wide coverage and revisit capability".

How can the risks posed by glacial lakes be mitigated?

- In 2023, a study published in the Journal of Geophysical Research examined the risks posed by Ghepan Gath lake — located at an elevation of 4,068 m in Himachal Pradesh — to Sissu in Lahaul valley, and modelled the impacts of lowering the water levels in the lake.
- It found that lowering of the lake levels by 10 to 30 m significantly reduces the impacts on Sissu town, though not completely eliminating the risks posed by a GLOM event.

163. The planet's plastic problem: why we need a global plastics treaty**Context:**

- Plastic waste is everywhere, from the peak of Mount Everest to the floor of the Pacific Ocean, inside the bodies of animals and birds, and in human blood and breast milk.
- thousands of negotiators and observers from 175 countries arrived in Ottawa, Canada, to begin talks regarding the very first global treaty to curb plastics pollution.
- the UN Environmental Assembly agreed to develop a legally binding treaty on plastics pollution by the end of 2024.

Why is a global plastics treaty needed?

- Since the 1950s, plastic production across the world has skyrocketed.
- If left unchecked, the production is slated to double by 2050, and triple by 2060.
- Although plastic is a cheap and versatile material, with a wide variety of applications, its widespread use has led to a crisis.
- Much of this plastic waste leaks into the environment, especially into rivers and oceans, where it breaks down into smaller particles (microplastic or nanoplastic).
- plastic waste is leaked to the environment; a further fraction makes its way to the ocean.
- According to a report by the Organisation for Economic Co-operation and Development (OECD), in 2019, plastics generated 1.8 billion tonnes of GHG emissions — 3.4% of global emissions.

What can the treaty entail?

- While none of the treaty's details have currently been finalised, experts believe that it can go beyond just putting a cap on plastic production in UN member states.
- The treaty can mandate the testing of certain chemicals in plastics.

What are the roadblocks to the treaty?

- Since the first round of talks in Uruguay in November 2022, oil-producing nations like Saudi Arabia, Russia, and Iran have opposed plastic production caps, and are using myriad delay tactics (like arguing over procedural matters) to derail constructive dialogues.
- For instance, countries are yet to decide if the plastics treaty would be agreed upon by consensus or through a majority vote, according to a report published in the journal Nature.
- The US has not joined the HAC.
- "99% of plastics are derived from fossil fuels, and the fossil fuel industry continues to clutch plastics and petrochemicals as a lifeline.
- The chemical and fossil fuel industries oppose cuts to plastic production, falsely claiming that the plastics crisis is not a plastic problem, but a waste problem," the analysis said.
- It is due to such roadblocks that the previous three rounds of negotiations have failed to make significant progress regarding the treaty.

164. Uttarakhand forest fire

News:

- Amid forest fires in Uttarakhand's Nainital district, the Indian Air Force was engaged in firefighting operations.

Key Highlights:

- The Nainital, Haldwani and Ramnagar forest divisions were worst affected.
- In some regions, the fires were doused with the help of a **Bambi bucket**, used to pour large amounts of water on the flames in relatively quick intervals.

Forest Fires:

- Uncontrolled and non-prescribed combustion or burning of plants in a natural setting such as a forest, grassland, brushland or tundra.
- Consumes the natural fuels and spreads based on conditions like **wind, topography, moisture, vegetation** etc.
- Severe fires occur in many forest types particularly **dry deciduous forest**, while evergreen, semi-evergreen and montane temperate forests are comparatively less prone
- Dry leaves are fuel for forest fires.
- The Forest Survey of India (FSI) website states that nearly **36 per cent** of India's forests are prone to frequent fires.
- Indian State of Forest Report 2021 also found that states in **northeastern India** showed the highest tendency for forest fires.

Reasons for Forest Fires:

- **Most fires** are believed to be **man-made**, due to changes in agriculture and unchecked land-use patterns.
- The forest department has previously cited four causes of wildfires: deliberate fires by locals, carelessness, farming-related activities and natural reasons.

Preventing Forest Fires:

- The Ministry of Environment, Forest and Climate Change (MoEFCC) lists the following methods to prevent and control a forest fire:
 - construction of watch towers for early detection;
 - deployment of fire watchers;
 - involvement of local communities,
 - creation and maintenance of fire lines.
- According to the **National Disaster Management Authority (NDMA)** website, two types of fire lines are in practice –
 - **Kachha** or covered fire lines and
 - **Pucca** or open fire lines.
- In Kaccha fire lines, the grasses and shrubs are removed while trees are retained to decrease the fuel load.
- The Pucca fire separates a forest/compartment/block from another to control the spread of potential fires.

165. Inequality can no longer be ignored

News:

- The Congress's party's election manifesto has triggered a debate on inequality, concentration of wealth and the measures to address these issues.

Highlights:

- The **World Inequality database** found that in **2022-23, 22.6% of the national income went to the top 1%, the highest ever since 1922.**
 - Wealth inequality is even more stark with the **top 1% population having 40.1%** share in wealth.
- India has a **low tax-GDP ratio** compared to other middle-income countries
- Its taxation structure is also regressive, **indirect taxes contribute to almost two-thirds of all tax revenue collection.**
- Moreover, **even direct taxes are not very progressive.**
 - According to the **Receipt Budget 2023-24** the **effective tax rate** (tax to profit ratio) was 19.14% for companies that had more than ₹500 crore profit before taxes. Meanwhile, for companies in the group of 0-₹1 crore profit to an effective tax rate was 24.82%
- **India's spending on welfare and the social sector is very low compared to other countries.**
 - **Health spending for instance is still around 1.3% of GDP whereas the National Health Policy (NHP) targets achieving 2.5% of GDP by 2025.**

Addressing inequality:

- We have **experienced growth accompanied by joblessness.** The discussion, therefore, has to be on generating employment.
 - For this, we have to focus on more **equitable growth with increasing purchasing power of people.**
 - Governments can play a role in this by spending on programmes such as the **NREGA** and the **Public Distribution System.**
- Governments can also contribute to directly creating jobs through **filling up all existing vacancies and expanding much needed public services** in health, education, nutrition and social security sector.
- The quality of jobs, such as of **anganwadi workers, ASHAs and other frontline workers, also need to be improved with adequate wages and improved work conditions.**
- These direct job creation efforts will create **employment opportunities for many, especially women.**
 - They will also contribute to **improving human development outcomes and reduce the burden of unpaid care work on women and free them up for other employment.**

Quick Look

1. White Rabbit (WR)

- It is a technology developed at CERN, in collaboration with institutes and companies, to synchronize devices in the accelerators down to sub-nanoseconds and solve the challenge of establishing a common notion of time across a network.
- White Rabbit Switches provides sub-nanosecond synchronization accuracy, which formerly required dedicated hard-wired timing systems, with the flexibility and modularity of real-time Ethernet networks. It achieves sub-nanosecond accuracy in Ethernet based networks.
- A White Rabbit network may be used solely to provide timing and synchronization to a distributed electronic system, or to provide both timing and real-time data transfer.

2. Lumpy Skin Disease

- It is an infectious viral disease of cattle.
- It is caused by the lumpy skin disease virus (LSDV), which belongs to the genus capripoxvirus, a part of the poxviridae family (smallpox and monkeypox viruses are also a part of the same family).
- LSDV is not a zoonotic virus, meaning the disease cannot spread to humans.
- Geographical distribution:
- LSD is currently endemic in most of Africa, parts of the Middle East and Turkey.
- Since 2015, the disease has spread to most of the Balkan countries, the Caucasus and the Russian Federation.
- Since 2019, several outbreaks of LSD have been reported by countries in Asia (Bangladesh, India, China, Chinese Taipei, Vietnam, Bhutan, Hong Kong (SAR-RPC), Nepal, Sri Lanka, Myanmar, Thailand).

3. Contempt of Court

- Article 129 of the Constitution says that the Supreme Court shall be the 'Court of Record' and it has all the powers of such courts including the power to punish for contempt of itself.
- Article 215 conferred a corresponding power on the High Courts.
- According to the Contempt of Courts Act, 1971, contempt of court can either be civil contempt or criminal contempt.
- Civil contempt means wilful disobedience to any judgment, decree, direction, order, writ or other process of a court or wilful breach of an undertaking given to a court.
- On the other hand, criminal contempt means the publication (whether by words, spoken or written, or by signs, or by visible representations, or otherwise) of any matter or the doing of any other act whatsoever which:
 - scandalises or tends to scandalise or lowers or tends to lower the authority of any court; or
 - prejudices, or interferes with, or tends to interfere with, the due course of any judicial proceeding; or
 - interferes or tends to interfere with, or obstructs or tends to obstruct, the administration of justice in any other manner.

4. Sea of Japan

- It is a marginal sea of the western Pacific Ocean.
- It is located in Eastern Asia and is bounded by Japan and Sakhalin Island to the east and by Russia and Korea on the Asian mainland to the west.
- Dohoku Seamount, an underwater volcano, is its deepest point.
- The sea itself lies in a deep basin, separated from the East China Sea to the south by the Tsushima and Korea straits and from the Sea of Okhotsk to the north by the La Perouse (or Sōya) and Tatar straits.
- To the east, it is also connected to the Inland Sea of Japan by the Kanmon Strait and to the Pacific by the Tsugaru Strait.
- It influences the climate of Japan because of its relatively warm waters. It serves as the meeting point of the cold currents from the north and the warm currents from the south.



5. Punnett square

- It is named after British geneticist Reginald Punnett.
- Along the top and side of the grid, the possible genetic traits of one parent on one side and the other parent on the other side is listed.
- Then, you fill in the squares by combining the traits from each parent.
- Each square effectively represents a possible combination of traits that their offspring could inherit.
- It's a simple way to visualise the probabilities of different traits showing up in the offspring.
- They are commonly used in biology to understand inheritance patterns, like when you learn about dominant and recessive genes in school.
- It is a useful tool that helps predict the variations and probabilities resulting from cross-breeding.

6. Paira cropping system

- The utera/paira is a type of cropping which is commonly practiced in Bihar, Eastern Uttar Pradesh, West Bengal Chhattisgarh and Odisha.
- It is a kind of relay method of sowing in which lentil/ lathyrus/ urdbean/ mungbean seeds are broadcast in the standing crop of rice about 2 weeks before its harvest.
- This system does not allow agronomic intervention such as tillage, weeding, irrigation and fertilizer. However, rice variety decides the productivity of pulses in this system.
- This practice enables us to use better soil moisture available at the time of harvesting of rice crops, which could otherwise be lost quickly.
- Experimental evidence showed that paira cropping produced more yield of lentil than planting with tillage after harvesting of the rice crop.
- This is an efficient way of utilising resources for sustainable crop intensification and boosting land productivity.

7. S.A.R.A.H.

- Smart AI Resource Assistant for Health (S.A.R.A.H.) is a digital health promoter prototype with enhanced empathetic response powered by generative artificial intelligence (AI).
- It is launched by the World Health Organisation (WHO).
- It aims to provide an additional tool for people to realize their rights to health, wherever they are.
- It is trained to provide information across major health topics, including healthy habits and mental health.

- It has the ability to support people in developing better understanding of risk factors for some of the leading causes of death in the world, including cancer, heart disease
- It can help people access up-to-date information on quitting tobacco, being active, eating a healthy diet and de-stressing among other things.

8. Purple-striped jellyfish

- It usually appears a blue purple (mauve) colour with a globe shaped umbrella covered in orangey brown warts.
- It is primarily pelagic or in the open ocean. However, this species can survive in benthic and temperate coastal habitats.
- It is found worldwide in tropical and warm-temperature seas. It is mainly found in the Indo-Pacific, Atlantic Ocean and the Mediterranean Sea.
- Unlike other jellyfish species, it has stingers not just on the tentacles, but on the bell too. These are bioluminescent, having an ability to produce light in the dark.

9. Washington Treaty

- The Washington Treaty, or North Atlantic Treaty, forms the basis of the North Atlantic Treaty Organization (NATO).
- It was signed in Washington D.C. in 1949, by 12 founding members.
- The Treaty derives its authority from Article 51 of the United Nations Charter, which reaffirms the inherent right of independent states to individual or collective defence.
- Collective defence is at the heart of the treaty and is enshrined in Article 5. It commits members to protect each other and sets a spirit of solidarity within the Alliance.
- The treaty is short, containing only 14 articles and provides for in-built flexibility on all fronts.
- Despite the changing security environment, the original treaty has never had to be modified and each ally has the possibility to implement the text in accordance with its capabilities and circumstances.

10. World Anti-Doping Agency (WADA)

- It was established in 1999 as an international independent agency to lead a collaborative worldwide movement for doping-free sport.
- It's governance and funding are based on an equal partnership between the sport movement and governments of the world.
- Its primary role is to develop, harmonize and coordinate anti-doping rules and policies across all sports and countries.
- Its key activities include scientific research, education, the development of anti-doping capacities and monitoring of the World Anti-Doping Code (Code), the document harmonizing anti-doping policies in all sports and all countries.

11. Mangal Pandey

- He is considered the hero of the first war of Independence, also known as the Sepoy Mutiny of 1857.
- He was born on July 19, 1827 near Faizabad in Uttar Pradesh.
- In 1849, Pandey joined the army of the British East India Company and served as a sepoy in the 6th Company of the 34th Bengal Native Infantry in Barrackpore.
- Rebellion against East India Company
- He revolted against the East India Company for introducing cartridges that were greased with animal fat as it hurt the religious sentiments of the soldiers.

- This movement of rebels reached other parts of India and led to a mass revolt against the colonial rulers

12. Satpula dam

- Satpula ('sat' means seven and 'pull' means openings of a bridge) was constructed during the reign of Sultan Muhammad Shah Tughlaq (1325-1351).
- It was built using Delhi quartz — a stone found in the Aravallis.
- It was developed as an integral component of defence wall of the fourth city of Delhi, Jahanpanah. The dam served two purposes: Providing a reliable source of water for irrigation, and acting as a defence against possible intruders.
- It was developed by identifying appropriate topography, i.e., a large open plain where water can be stored for irrigating large flat lands. Hence, this structure with sluice gates and a reservoir was developed.
- Since Sufi saint Nasiruddin Mahmud (popularly known as Chirag Dehlavi) used to live nearby, people used to believe that the canal water had healing properties.

13. Oceanic Niño Index

- It is the primary indicator for monitoring the ocean part of the seasonal climate pattern called the El Niño-Southern Oscillation, or "ENSO".
- It tracks the running 3-month average sea surface temperatures in the east-central tropical Pacific between 120°-170°W, near the International Dateline, and whether they are warmer or cooler than average.
- Index values of +0.5 or higher indicate El Niño and values of -0.5 or lower indicate La Niña

14. TSAT-1A

- It is an optical sub-metre-resolution Earth observation satellite.
- It was built by Tata Advanced Systems Limited (TASL) in collaboration with Latin American company Satellogic Inc, following a collaboration agreement between the two companies in late 2023.
- TSAT-1A was assembled in TASL's Assembly, Integration, and Testing (AIT) plant at its Vemagal facility in Karnataka.
- It was launched by SpaceX's Falcon 9 rocket from the Kennedy Space Center, Florida, in the US.

15. Jenu Kuruba community:

- Jenu in Kannada means honey and kuruba is the caste. As the name suggest Jenu Kurubas are honey gatherers.
- They are traditional honey gathering tribe and are among the original inhabitants of the forests of the Western Ghats that stretch over three States – Karnataka, Kerala and Tamil Nadu.
- They live in small settlements called Hadi.
- Occupation: The main occupation used to be food gathering in the forests, collection of minor forest produce in the forests, collection of minor forest produce including honey
- They practice shifting cultivation, leading to a nomadic lifestyle.

16. Rhamphicarpa fistulosa:

- It is a facultative, parasitic weed that grows on rice which is also known as rice vampireweed.
- It also affects sorghum and maize and, potentially, other cereal crops.

- The weed can germinate and grow independently but significantly increases its reproductive output when parasitizing a suitable host.
- It is not controlled by fertilisers.
- It is found in at least 35 countries in Africa, with 28 of them home to rainfed lowland rice areas.
- Countries with the highest estimated infestation rates were Gambia, Senegal, Burkina Faso, Togo and, to a lesser extent, Mauritania, Guinea-Bissau, Benin, Malawi and Tanzania.

17. Fiscal Monitor Report

- It provides an overview of latest public finance developments, updates the medium-term fiscal outlook, and assesses fiscal implications of policies relevant to the global economy. It is prepared twice a year by the IMF's Fiscal Affairs Department.
- Its projections are based on the same database used for the World Economic Outlook (WEO) and the Global Financial Stability Report (GFSR).
- The fiscal projections for individual countries have been prepared by IMF desk economists, and, in line with the WEO guidelines.

18. National Investment and Infrastructure Fund (NIIF)

- It is a fund manager that invests in infrastructure and related sectors in India. It is India's first-ever sovereign wealth fund (SWF), which was set up in 2015.
- It is a collaborative investment platform for international and Indian investors with a mandate to invest equity capital in domestic infrastructure.
- It invests across asset classes such as infrastructure, private equity, and other diversified sectors in India, with the objective of generating attractive risk-adjusted returns for its investors.
- It invests in greenfield (new), brownfield (existing), and stalled projects.
- NIIF is 49% owned by the Indian government and has more than \$4.9 billion in assets under management, making it the country's biggest infrastructure fund.
- It benefits from its association with the Government yet is independent in its investment decisions.

19. Doctrine of Harmonious Construction

- It is an essential rule for interpreting statutes. It states that when there's a conflict between two or more statutes or between different parts or provisions of a statute, we should interpret them in a way that harmonises them.
- It means that when there are inconsistencies, we should try to reconcile the conflicting parts so that one part doesn't negate the purpose of another.
- It is rooted in the fundamental legal principle that every statute is created with a specific purpose and intent. Therefore, it should be understood as a whole.
- But when two provisions are contradictory, it may not be possible to effectuate both of them, and as a result, one will be rendered futile as against the settled basic principle of 'ut res magis valeat quam pereat' (that a thing is better understood so that it may have an effect than that it should be made void).

20. Wayanad Wildlife Sanctuary (WWS)

- Location: It is located in Wayanad, Kerala, in the southern trenches of the Western Ghats. It is a part of the Nilgiri Biosphere Reserve, which is a UNESCO World Heritage Site.

- It is bordered by the protected areas of Nagarhole and Bandipur in Karnataka on the northeastern side and Mudumalai in Tamil Nadu on the southeastern side.
- Tribes living in these forests include some scheduled adivasis, such as Paniyas, Kattunaikkans, Kurumas, Ooralis, Adiyans, and Kurichiyas.

21. Sungrazing Comets

- Sungrazing comets are a special class of comets that come very close to the sun at their nearest approach, a point called perihelion.
- To be considered a sungrazer, a comet needs to get within about 850,000 miles from the sun at perihelion. Many come even closer, even to within a few thousand miles.
- Being so close to the sun is very hard on comets for many reasons.
- They are subjected to a lot of solar radiation, which boils off their water or other volatiles.
- The physical push of the radiation and the solar wind also helps form the tails.
- As they get closer to the sun, the comets experience extremely strong tidal forces or gravitational stress.
- In this hostile environment, many sungrazers do not survive their trip around the sun.

22. Fractal

- It is a never-ending pattern which is infinitely complex and self-similar across different scales. They are created by repeating a simple process over and over in an ongoing feedback loop.
- In essence, a fractal is a pattern that repeats forever, and every part of the fractal, regardless of how zoomed in or zoomed out you are, it looks very similar to the whole image.
- Fractals are distinct from the simple figures of classical, or Euclidean, geometry—the square, the circle, the sphere and so forth.

23. Khavda Renewable Energy Park

- It is the world's largest renewable energy park.
- It is located at Khavda in Gujarat's Kutch region, boasting an impressive 45 GW capacity predominantly fueled by solar energy.
- The region has the second-best solar radiation in the country after Ladakh and wind speeds five times that of the plains.
- Situated just one kilometer from the international border with Pakistan, the energy park maintains a buffer zone manned by the Border Security Force (BSF).
- Originally accessed only by a modest airstrip without air traffic control, the site now gears up for a significant clean energy venture. It spans 538 square kilometres, approximately five times the size of Paris.

24. Fort Emmanuel

- It is a ruined fort located at Fort Kochi Beach in Kochi, Kerala. It was originally built in 1503 and reinforced in 1538.
- It was a symbol of the strategic alliance between the Maharajah of Kochi and the Monarch of Portugal, after whom it was named.
- It was a massive structure, and the entire township was within its confines. It greatly helped in strengthening the Portuguese occupation of the area.

- Fort Kochi remained in Portuguese possession until 1683, when the Dutch colonial troops captured the territory and destroyed the Portuguese institutions.
- The Dutch held the fort in their possession until 1795, when the British took control by defeating the Dutch. By 1806, the Dutch, and later the British, had destroyed most of the fort walls and its bastions.

25. Financial Services Institutions Bureau (FSIB)

- It's a government body set up under the Department of Financial Services (DFS), Ministry of Finance.
- The primary role of FSIB is to identify manpower capabilities and ensure proper selection of talent for senior positions at financial institutions owned by the government.
- It replaced the Bank Board's Bureau (BBB), which was declared an incompetent authority.
- FSIB would be headed by a chairman, a central government nominee.
- The board would comprise the Secretaries of the DFS, the chairman of IRDAI, and a deputy governor of the RBI.
- Additionally, it will have three part-time members who are experts in banking and three more from the insurance sector.

26. Jadhah River

- It is a northern tributary of the Brahmaputra River.
- It originates in the sub-Himalayan mountains of Arunachal Pradesh at an altitude of 1247m. The total length of the river is 187 km.
- After passing through a narrow gorge in Arunachal Pradesh, the river enters the plains of Assam in Dhemaji district, where it flows in braided channels.
- The river finally debouches into the Brahmaputra near Selamukh in Lakhimpur district.
- But after the construction of the embankment over the Kherkutiya Suti of the Brahmaputra, the river confluences with the Subansiri River.

27. Easementary Right

- The concept of easement has been defined under The Indian Easements Act, 1882.
- According to it, an easementary right is a right possessed by the owner or occupier of the land on some other land, not his own, the purpose of which is to provide the beneficial enjoyment of the land.
- This right is granted because, without the existence of this right an occupier or owner cannot fully enjoy his own property.
- It includes the right to continue to do something or to prevent or to continue to prevent something in connection with or in respect of some other land which is not his own, for the enjoyment of his own land.

28. Operation Meghdoot

- It was the code-name for the Indian Armed Forces operation to capture the Siachen Glacier, a strategically crucial region dominating Northern Ladakh.
- Siachen has been a bone of contention between India and Pakistan ever since the Karachi Agreement of 1949
 - when the area was left undivided due to the hostile terrain and extremely rough weather.

- Operation Meghdoot was India's bold military response to what New Delhi calls Pakistan's "cartographic aggression" in the uncharted territory of Ladakh, north of map reference NJ9842
 - where New Delhi and Islamabad had agreed the Line of Control (LoC) ran up to.
- The primary objective behind this operation was to pre-empt the seizure of Sia La and Bilafond La passes by the Pakistan Army.

29. Precautionary Principle

- It is an approach to policymaking that legitimizes the adoption of preventative measures
 - to address potential risks to the public or environment associated with certain activities or policies.
- The principle says, "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent such environmental degradation."
- It enables decision-makers to adopt precautionary measures when scientific evidence about an environmental or human health hazard is uncertain and the stakes are high.
- It implies that protective action should be taken to prevent any possible harm, even if there is a chance that such harm will not occur—thus playing it safe.

30. Qudsia Bagh

- It was built by Qudsia Begum (in 1748), the wife of Mughal Emperor Mohammad Shah Rangeela, who ruled in the early 18th century.
- It is situated in North Delhi. It was built in the Persian char-bagh style.
- The only remains of the Bagh are its imposing western gateway, the Qudsia Mosque and a couple of pavilions in carved red sandstone.
- It was the private mosque of the emperor and his wife and had been built in a very simple style surmounted by three-storied high walls.
- The mosque is an ASI protected monument and it is built with lakhori bricks.
- The Bagh had several entrances built with red sandstones, plastered with limestone. Stucco work is done on the walls. It had cusped arches with floral patterns above

31. Mudumalai Tiger Reserve

- It is located in the Nilgiris District of Tamil Nadu, at the tri-junction of three states, viz, Karnataka, Kerala, and Tamil Nadu.
- It lies on the Northeastern and Northwestern slopes of the Nilgiri hills, which is a part of the Western Ghats.
- It is part of the Nilgiris Biosphere Reserve, the first biosphere reserve in India.
- It has a common boundary with Wayanad Wildlife Sanctuary(Kerala) on the west, Bandipur Tiger Reserve (Karnataka) on the north, the Nilgiris North Division on the south and east, and Gudalur Forest Division on the south-west.

32. Lake Kariba

- It is the world's largest man-made lake and reservoir by volume.
- It lies along the border between Zambia and Zimbabwe.
- It is 200 kilometers downstream of Victoria Falls.

- The lake was filled following the completion of the Kariba Dam wall at its northeastern end, flooding the Kariba Gorge on the Zambezi River.
- The Kariba Dam consists of a double-arch wall.
- The wall extends across the Kariba gorge, creating a border crossing between Zambia and Zimbabwe.
- It provides considerable electric power to both Zambia and Zimbabwe and supports a thriving commercial fishing industry.

33. UN Permanent Forum on Indigenous Issues (UNPFII)

- It was created in 2000 as an advisory body to the United Nations Economic and Social Council (ECOSOC) with a mandate to discuss indigenous issues related to economic and social development, culture, environment, education, health and human rights.
- According to its mandate, the Permanent Forum will:
- Provide expert advice and recommendations to the Council, as well as to programmes, funds and agencies of the United Nations, through the Council.
- Raise awareness and promote the integration and coordination of activities related to indigenous issues within the UN system.
- Prepare and disseminate information on indigenous issues.

34. KAVACH System

- The KAVACH is an indigenously developed Automatic Train Protection (ATP) system by the Research Design and Standards Organisation (RDSO) in collaboration with the Indian industry.
- It is a state-of-the-art electronic system with Safety Integrity Level-4 (SIL-4) standards.
- It makes use of high frequency radio communication and operates on the principle of continuous update of movement to prevent collisions
- It works on the principle of continuous update of Movement authority.
- It actively uses the SOS to prevent any kind of mishap and accidents.

35. Veeranam Lake

- Veeranam Lake serves as a crucial drinking water source for Chennai.
- It is located in Cuddalore district in Tamil Nadu.
- It was considered one of the longest man-made lakes in the world with a length of 14 km.
- It was built during the period of Greater Cholas between 907-955 AD, by the Chola Prince- Rajaditya Chola who was the son of Parantaka the 1st. He'd named this waterbody after his father's title-Veeranarayanan.
- This lake was used as a reference, in the famous Historical novel Ponnaiyan Selvan, written by Kalki.
- The source of Veeranam is the river of Kollidam
 - which is the Northern tributary of the Cauvery River, where the Vadavaru River links both the Veeranam and Kollidam.

36. Vostro Account

- It is an account that domestic banks hold for foreign banks in the former's domestic currency, in this case, the rupee.
- Domestic banks use it to provide international banking services to their clients who have global banking needs.
- It is an integral offshoot of correspondent banking that entails a bank (or an intermediary) to facilitate wire transfers, conduct business transactions, accept deposits and gather documents on behalf of the other bank.
- It helps domestic banks gain wider access to foreign financial markets and serve international clients without having to be physically present abroad.

37. Sovereign Green Bonds (SGrBs)

- A green bond is a debt security that is issued to raise capital to support climate-related or environmental projects, according to the World Bank.
- SGBs are issued by governments to raise resources for such projects.
- In India, the Union Budget 2022-23 announced the issue of SGrBs.
- The government's framework is based on the International Capital Market Association's (ICMA) listed principles for issuing green bonds, which has four components:
 - Use of proceeds, project evaluation and selection, management of proceeds and reporting

38. Leaf Litter Frog

- It is the most abundant species of frog in the forest community.
- It utilizes its high-frequency screams as a survival strategy.
- It inhabits primary and secondary forests and forest edges.
- It is usually found in the leaf-litter on the forest floor, or on leaves in low vegetation inside the forest.
- They are tiny and the largest of the species are females. In size, they are barely up to 64 millimeters (2.5 inches) in length.
- It is a species of frog endemic to the Brazilian Atlantic rainforest.
- The species is categorized as least concern under IUCN Conservation status

39. Meningitis

- It is a serious infection that leads to the inflammation of the membranes (meninges) that surround and protect the brain and spinal cord.
- There are multiple causes of meningitis, including viral, bacterial, fungal and parasitic pathogens.
- Bacterial meningitis, specifically caused by the meningococcus bacteria, is a particular concern in Africa and can also result in septicaemia (blood poisoning)
 - can seriously disable or kill within 24 hours those that contract it.
- It often includes headache, fever and stiff neck.
- A region of 26 countries known as the "African meningitis belt" stretches across the continent, including Nigeria

40. Shompen Tribe

- Particularly Vulnerable Tribal Groups (PVTGs) residing in the dense tropical rain forests of the Great Nicobar island
- They are one of five PVTGs in Andaman and Nicobar island.
- Census (2011) quotes their estimated population to 229
- Most of them are uncontacted and speak their own language. However, the dialects may vary.
- Being a semi nomadic tribe their main sources of livelihood are hunting, gathering, fishing.
- Staple food of the Shompen tribe is the pandanus fruit, which they call larop.

41. Vasuki Indicus

- The fossils of this snake were found in Panandhro Lignite Mine, Kutch, Gujarat.
- It is one of the largest snakes that ever existed.
- It likely lived in Middle Eocene period 47 million years ago
- The fossil found belonged to the now-extinct Madtsoiidae snake family. However, it represents a unique lineage from India.
- It is believed it likely had a cylindrical body, a robust and powerful build,

- It was as big as Titanoboa, another massive snake that was reportedly the longest ever known.

42. Mount Ruang

- A remote Indonesian volcano sent ash spewing into the sky,
- After nearly half a dozen eruptions earlier this week forced thousands to evacuate when molten rocks rained down on their villages.
- The country's volcanology agency said the eruption sent a plume of smoke 400 metres above the peak.

43. Mount Apo

- The highest peak, and an active volcano in the Philippines' Mindanao Island.
- The Philippines has a tropical climate with high temperatures and humidity year-round, experiencing wet and dry seasons.
- The Philippines is considered one of the world's biodiversity hotspots.
- The Philippines is also a part of the Pacific Ring of Fire, which makes it geologically active. It has more than 20 active volcanoes, including Mayon (recently erupted in 2023), Taal, and Mount Pinatubo (erupted in 1991).

44. Panhala Fort

- It is located in Maharashtra and occupies a prime place in the history of this state.
- Locally, the site was known as the abode of serpents and traditionally associated with the sage Parashar.
- It is strategically placed in proximity to the trade routes connecting the Sahyadri mountains, the Deccan plateau, and the Konkan coast, the fort became centre of interest for several dynasties.
- The antiquity of the fort goes back to the Shilahara dynasty Bhoja of 11th century CE.

45. Bitcoin halving

- The halving refers to an alteration in the foundational blockchain technology of Bitcoin, aimed at decreasing the pace of generating new bitcoins.
- Since its creation by the pseudonymous figure Satoshi Nakamoto, Bitcoin has been structured to possess a finite supply of 21 million tokens.
- The process of halving will persist until 2041, by which time all Bitcoins will have been mined.

46. Longevity India Initiative

- It is a project focused on efforts to extend human 'healthspan' and tackle ageing-related challenges.
- It has also started a large-scale clinical study that will involve researchers from multiple IISc departments, clinicians, industry, philanthropists and civil society.
- It seeks to enhance the understanding of ageing through both fundamental and applied research, and to develop solutions that can improve quality of life.
- It will leverage advanced research to develop interventions that can help manage age-related diseases more effectively, with an emphasis on promoting healthy ageing across India.

47. Rampage Missile

- It is a long-range, supersonic, air-to-ground, seekerless, precision strike missile.
- It was developed by Israel Aerospace Industries and Israeli Military Industries Systems.

- It has been developed for use in missions aimed at destroying high-quality, well-protected targets, such as communication and command centers, air force bases, maintenance centers, and infrastructure.
- It may travel at supersonic speeds, making it difficult to identify and intercept with air defense systems.
- It has a range of over 190 miles.
- It can carry 150 kg of explosives.
- It has a blast fragmentation or general-purpose warhead.

48. Artemis Accords

- They are a non-binding set of principles designed to guide civil space exploration and use in the 21st century.
- These principles will help to ensure the maintenance of a safe and predictable outer space environment.
- Co-led by NASA and the U.S. Department of State, the Artemis Accords was established in 2020, together with seven other founding member nations (Australia, Canada, Italy, Japan, Luxembourg, the United Arab Emirates and the United Kingdom).
- As of April 2024, there were 38 signatories, including India.

49. Mount Erebus

- It is the most southerly active volcano on Earth. It is situated on Ross Island, Antarctica.
- It's a stratovolcano, characterized by a conical shape and layers of hardened lava, tephra, and volcanic ash.
- Mount Erebus is known for its persistent lava lake.
- The lake has been active since at least 1972 and is one of only a few long-lived lava lakes on Earth.
- It constantly churns and occasionally spews bombs of molten rock in Strombolian eruptions.
- Because the volcano is in a remote location, researchers monitor it using satellites.

50. National Biomaterial Centre (National Tissue Bank)

- The Transplantation of Human Organs (Amendment) Act 2011 has included the component of tissue donation and registration of tissue Banks.
- The main thrust and objective of establishing the centre is to fill up the gap between 'Demand' and 'Supply' as well as 'Quality Assurance' in the availability of various tissues.
- functions: Coordination for tissue procurement and distribution; Donor Tissue Screening; Removal of Tissues and Storage; Preservations of Tissue; Laboratory screening of Tissues; Tissue Tracking; Sterilization, Records maintenance; Data Protection

51. Headline inflation

- Headline inflation is the raw inflation figure reported through the Consumer Price Index (CPI)
 - that is released monthly by the Bureau of Labor Statistics (BLS).
- The CPI calculates the cost to purchase a fixed basket of goods to determine how much inflation is occurring in the broad economy.
- The CPI uses a base year and indexes the current year's prices, according to the base year's values.

52. Core Inflation

- Core inflation removes the CPI components that can exhibit large amounts of volatility from month to month
- which can cause unwanted distortion to the headline figure.
- The most commonly removed factors are those relating to the costs of food and energy.
- Food prices can be affected by factors outside of those attributed to the economy
 - such as environmental shifts that cause issues in the growth of crops.
- Energy costs, such as oil production, can be affected by forces outside of traditional supply and demand, such as political dissent.

53. Banded Krait

- Large Species of elapid Snakes
- Elapid Snakes- Family of snakes characterized by their permanently erect fangs at the front of the mouth
- Has High Neurotoxic Venom
- IUCN Status- Least Concern
- Found in tropical and Subtropical regions of the World, Found in India

54. Voyager 1 Spacecraft

- It is a space probe launched by NASA on September 5, 1977, about two weeks after its twin Voyager 2 to study the outer Solar System and beyond.
- Its mission has included flybys of Jupiter and Saturn, with the goal of studying their moons, rings and magnetic fields.
- It is currently the most distant human-made object from Earth.
- It was the first spacecraft to cross the heliosphere, the boundary where the influences outside our solar system are stronger than those from our Sun.
- It discovered a thin ring around Jupiter and two new Jovian moons: Thebe and Metis.
- At Saturn, Voyager 1 found five new moons and a new ring called the G-ring.
- Voyager 1 carries a golden record that contains sounds and images selected to portray the diversity of life and culture on Earth, in the event that it is ever encountered by extraterrestrial life.

55. Crystal Maze 2

- Also referred to as ROCKS, it is an air-launched medium-range ballistic missile.
- It is of Israeli origin.
- It is designed to target high-value stationary and relocatable assets, such as long-range radars and air defense systems, of potential adversaries.
- Distinguished from its predecessor, Crystal Maze 1, which has been inducted into the IAF from Israel previously, the Crystal Maze 2 boasts extended stand-off range capabilities as an air-to-surface missile.
- It is capable of hitting targets over 250 kilometers With options for either a penetration or blast fragmentation warhead, the missile is capable of destroying above-ground or well-protected underground targets.
- It is specifically effective in GPS-denied environments.

56. TINA Factor

- It stands for There Is No Alternative. It refers to a situation where investors perceive a particular asset class or investment as the best option available given the prevailing market conditions.
- This perception arises when other investment options are deemed unattractive due to factors such as low returns, high volatility or economic uncertainty.
- Essentially, people fearful of possible uncertainties in the future consider investing in the safest investment instrument.
- That is, prices rise to unrealistic heights due to a lack of reasonable alternatives.
- TINA has historically been a response to certain economic conditions where investments typically seen as safe have become less favorable.

57. Marburg Virus Disease (MVD)

- It is a rare but severe hemorrhagic fever which affects both people and non-human primates.
- It is caused by the Marburg virus, a genetically unique zoonotic (or, animal-borne) RNA virus of the filovirus family.
- It is in the same family as the virus that causes the Ebola virus
- Human infection with MVD initially results from prolonged exposure to mines or caves inhabited by Rousettus bats.
- Once an individual is infected with the virus, Marburg can spread through human-to-human transmission
 - Via direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people,
 - With surfaces and materials (e.g., bedding, clothing) contaminated with these fluids.

58. Bathymetry

- It is the study and mapping of the depth of water in oceans, rivers, lakes, and streams.
- Bathymetric maps are similar to topographic maps, which use lines to show the shape and elevation of land features.
- On bathymetric maps, the lines connect points of equal depth.
- Bathymetry is the foundation of the science of hydrography, which measures the physical features of a water body.
- Hydrography includes not only bathymetry, but also the shape and features of the shoreline
 - The characteristics of tides, currents, and waves; and the physical and chemical properties of the water itself.

59. Phi-3-Mini

- Microsoft has described the Phi-3 as a family of open AI models that are the most capable and cost-effective small language models (SLMs) available.
- Phi-3-Mini is believed to be first among the three small models that Microsoft is planning to release.
- It has reportedly outperformed models of the same size in areas like language, reasoning, coding, and maths.

60. ATACMS

- The ATACMS is one of the most potent missile systems built by US-based arms manufacturer Lockheed Martin.
- This is a surface-to-surface artillery weapon system. Its biggest strengths are the long-range of attack, ability to fire cluster munitions, and the weapon system's mobility.
- The missiles were part of a \$300 million military aid package for Ukraine.
- There is a mid-range version of the ATACMS, called Block 1, and there is a long-range version, Block 1A.
- ATACMS Block 1 has a range of 165 km and Ukraine was provided these systems last year. ATACMS Block 1A
 - On the other hand, has a maximum range of 300 km which is capable of striking targets well beyond the range of existing Army cannons, rockets and other missiles.

61. Intergovernmental Negotiating Committee on Plastic Pollution:

- In 2022, at the fifth session of the UN Environment Assembly, a historic resolution was adopted to develop an International Legally Binding Instrument (ILBI) on plastic pollution, including in the marine environment.
- The resolution requested the Executive Director of the UN Environment Programme (UNEP) to convene an Intergovernmental Negotiating Committee (INC) to develop "the instrument"
 - Which is to be based on a comprehensive approach that addresses the full life cycle of plastic, including its production, design, and disposal.
- The objective of the global plastics treaty is to set a global framework of standards around accountability, responsibilities, financing, material/chemical standards, import/export restrictions, targets.

62. Global Report on Food Crises (GRFC) 2024

- It is released annually by the Food Security Information Network (FSIN) and launched by the Global Network Against Food Crises
 - A multistakeholder initiative that includes United Nations agencies, the European Union, the United States Agency for International Development and non-governmental agencies working to tackle food crises.
- It analyzed a population of 1.3 billion in 2023 across 59 countries. Nearly 282 million people faced high levels of acute food insecurity.
- 2023 was the fifth consecutive year of rise in the number of people suffering acute food insecurity
 - Defined as when populations face food deprivation that threatens lives or livelihoods, regardless of the causes or length of time.

63. National Institute for the Empowerment of Persons with Intellectual Disabilities (NIEPID)

- NIEPID (formerly the National Institute for the Mentally Handicapped), established in 1984, is an autonomous body under the administrative control of the Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice & Empowerment.
- It is dedicated to providing quality services to Persons with Intellectual Disabilities (Divyangjan) in the national interest.

- It is the apex body functioning for training, research, and surveys in the field of intellectual disability in the country.
- The institute is headquartered in Secunderabad, Telangana, and has regional centres in Kolkata, Navi Mumbai and Noida.

64. Nephrotic Syndrome

- It is a kidney disorder that causes your body to pass too much protein in your urine.
- It usually results from a problem with your kidneys' filters (glomeruli).
- The kidneys remove waste and excess fluid from your blood through filtering units called nephrons.
- Each nephron contains a filter (glomerulus), which removes waste and excess fluids from your blood and send them to your bladder as urine.
- Common waste products include nitrogen waste (urea), muscle waste (creatinine), and acids.
- In healthy kidneys, the glomeruli filter out waste products.
- They allow your blood to retain the cells and proteins your body needs to function regularly.

65. Climate Technology Centre and Network (CTCN)

- It is the operational arm of the United Nations Framework Convention on Climate Change's (UNFCCC) Climate Change Technology Mechanism.
- It is hosted by UN Environment (UNEP) in collaboration with the United Nations Industrial Development Organization (UNIDO) and with the support of 11 independent organizations having expertise in climate technologies.
- It was established to accelerate the development and transfer of environmentally sound technologies for low-carbon and climate resilient development at the request of developing countries.
- It provides technology solutions, capacity building, and advice on policy, legal, and regulatory frameworks tailored to the needs of individual countries by harnessing the expertise of a global network of technology companies and institutions.

66. Chang'e-6

- The Chang'e 6 mission is a planned lander designed to return samples from the lunar south pole.
- The mission aims to land on the Moon, collect samples from the lunar surface, and return them to Earth. This process will contribute crucial data to unravel the Moon's geological mysteries.
- Representing the first attempt to retrieve samples from the far side of the Moon, Chang'e 6 is set to bring back up to two kilograms of lunar samples, adopting a configuration similar to the successful Chang'e 5 mission.
- The mission involves international collaboration, with payloads from the European Space Agency (ESA) and the French space agency CNES.

67. Bambi Bucket

- It is a specialized aerial firefighting tool being used since the 1980s.
- It is essentially a lightweight collapsible container that releases water from underneath a helicopter to targeted areas using a pilot-controlled valve.
- It can be quickly and easily filled from various sources, including lakes and swimming pools, allowing firefighters to swiftly refill it and return to the target area.
- It is available in a variety of sizes and models, with capacities ranging from 270 to 9,840 litres.

68. Green Taxonomy

- A green taxonomy is a framework for defining what can be called environmentally sustainable investments.
- It is a classification system that defines which economic activities and assets are “green” or environmentally sustainable.
- It is a useful instrument and has several complementary purposes:
 - help prevent greenwashing;
 - help investors make informed investment decisions; and
 - channel investment toward sustainable or green economic activities and assets





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