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NEWS JUICE MONTHLY

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

POLITY
&
GOVERNANCE

Doctrine of pleasure

Relevance: Prelims & GS Mains II; Polity & Governance

Why in news?

- Kerala Governor Arif Mohammed Khan and the State government have major differences over multiple issues.
- The latest controversy has arisen after he sought the resignation of several vice-chancellors following a Supreme Court judgment setting aside the appointment of the Vice-Chancellor of a technology university.
- As a fallout of comments made by the State's Finance Minister, K. N. Balagopal, the Governor has also sought his dismissal from his Cabinet, declaring that he has withdrawn the pleasure of having him in the Council of Ministers.

Can Governor seek Minister's dismissal?

- Under Article 164, the Chief Minister is appointed by the Governor; and the other Ministers are appointed by the Governor on the CM's advice.
- The same article adds that Ministers hold office during the pleasure of the Governor.
- In a constitutional scheme in which they are appointed solely on the CM's advice, the 'pleasure' referred to is also taken to mean the right of the Chief Minister to dismiss a Minister, and not that of the Governor.

Issue of dismissal of VCs

- The **Governor**, in his capacity as Chancellor of universities, responded by **directing the V-Cs of nine universities to resign the very next day**, contending that the infirmities pointed out by the Supreme Court in one case also vitiated their appointments.
- Mr. Khan noted that the **apex court had declared that an appointment not in line with the UGC regulations would be ab initio void** that is invalid from the very beginning.
- He highlighted the fact that **each of those appointments were either made on the basis of a single recommendation** (multiple names were not recommended) **or were recommended by a panel in which the Chief Secretary** was a member (contrary to the Regulations that say its members should be persons of eminence in the field of higher education).
- However, when the **communication was challenged in the Kerala High Court**, the **Governor converted his directive into show-cause notices to the V-Cs** to explain how their appointments were not illegal. Later, **such notices were sent to two more V-Cs**.

Two-finger test of sexual assault victims

Relevance: Prelims & Mains Paper II; Governance

Why in news?

- The Supreme Court recently said that those **conducting the 'two-finger test'** on alleged rape victims will be held guilty of misconduct.
- This is **not the first time the SC has expressed its disapproval** with the two-finger test.
- The **Centre's guidelines on examining victims of sexual assault also forbid it**, but the practice continues.

Two Finger Test

- A **woman who has been sexually assaulted** undergoes a medical examination for ascertaining her health and medical needs, collection of evidence, etc.
- The two-finger test, **carried out by a medical practitioner**, involves the examination of her vagina to check if she is habituated to sexual intercourse.
- The practice is **unscientific and does not provide any definite information**. Moreover, such 'information' has no bearing on an allegation of rape.

Anti-superstition laws in India

Relevance: Prelims & GS Mains II; Polity & Governance

Why in news?

- The **brutal murders of two women as part of “ritualistic human sacrifices”** in the **Pathanamthitta district of Kerala** have left the country in shock.
- Chilling details of the killings have sparked a debate about the **prevalence of superstitious beliefs, black magic and sorcery in Kerala**.
- In the absence of a comprehensive law to counter such acts, the **call for a strict anti-superstition law** has grown louder.

Are such killings common?

- As per the **2021** report of the **National Crime Records Bureau (NCRB)**, **six deaths were linked to human sacrifices, while witchcraft was the motive for 68 killings**.
- In **2020**, India saw **88 deaths due to witchcraft** and **11 died as part of ‘human sacrifices’**, the NCRB report states.

Laws to deal with crimes

- In India, there is **no central law** that exclusively deals with crimes related to witchcraft, superstition, or occult-inspired activities.
- In the absence of a nationwide legislation, a **few States have enacted laws** to counter witchcraft and protect women from deadly 'witch-hunting'.

Amendments to the IT Rules, 2021

Relevance: Prelims & Mains Paper II; Governance

Why in news?

- The Ministry of Electronics and IT (MeitY) has notified amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (IT Rules, 2021) on October 28.

Need of new Rules

- World over, governments are grappling with the issue of regulating social media intermediaries (SMIs).
- Given the multitudinous nature of the problem — the centrality of SMIs in shaping public discourse, the impact of their governance on the right to freedom of speech and expression, the magnitude of information they host and the constant technological innovations that impact their governance — it is important for governments to update their regulatory framework to face emergent challenges.

Stated Objectives

- The **stated objectives** of the amendments were **three-fold**:
- First, there was a **need to ensure that the interests and constitutional rights of netizens are not being contravened** by big tech platforms.
- Second, **Strengthen the grievance redressal framework** in the Rules, and
- Third, **Compliance with these should not impact early stage Indian start-ups.**
- This translated into a set of **proposed amendments** that can be broadly classified into **two categories**. The first category involved **placing additional obligations on the SMIs** to ensure better protection of user interests while the second category involved the **institution of an appellate mechanism for grievance redressal.**

Additional obligations on SMIs

- The new rules place the following **additional obligations on SMI**:
 1. First, the **original IT Rules, 2021 obligated the SMIs to merely inform its users of the categories of content that users are prohibited from hosting, displaying, sharing etc. on the platform.**

This **obligation on the SMIs has now been extended to ensuring that its users are in compliance with the relevant rules of the platform. Further, SMIs are required to “make reasonable” efforts to prevent prohibited content being hosted on its platform by the users.**

While the SMIs are unclear of the extent of measures they are now expected to undertake, users are apprehensive that the increased power of the SMIs would allow them to trample on freedom of speech and expression.

Additional obligations on SMIs

2. Second, a similar concern arises with the other **newly introduced obligation on SMIs to “respect all the rights accorded to the citizens under the Constitution, including in the articles 14, 19 and 21”**.

3. Third, SMIs are **now obligated to remove information or a communication link in relation to the six prohibited categories of content as and when a complaint arises**.

They have to remove such information **within 72 hours** of the complaint being made. Given the virality with which content spreads, this is an important step to contain the spread of the content.

Additional obligations on SMIs

4. Lastly, SMIs have been obligated to **“take all reasonable measures to ensure accessibility of its services to users along with reasonable expectation of due diligence, privacy and transparency”**.

While there are concerns that ensuring “accessibility” may obligate SMIs to provide services at a scale that they are not equipped to, the obligation is meant to strengthen **inclusion in the SMI ecosystem** such as allowing for participation by persons with **disabilities and diverse linguistic backgrounds**.

In this context, the amendments also mandate that **“rules and regulations, privacy policy and user agreement”** of the platform should be made available in all languages listed in the eighth schedule of the Constitution.

Grievance redressal mechanism

- The cornerstone of empowering users of social media platforms is to design a **robust grievance redressal mechanism** that can effectively and efficiently address their concerns.
- **Prior to the IT Rules, 2021**, platforms followed their **own mechanisms and timelines** for resolving user complaints.
- The **IT Rules** uniformed this by **mandating that all social media platforms should have a grievance officer** who would **acknowledge the receipt of a complaint within 24 hours and dispose it within 15 days**.
- However, the **performance of the current grievance redressal mechanism has been sub-optimal**.

Grievance redressal mechanism

- To remedy this, the **government has instituted Grievance Appellate Committees (GAC)**.
- The committee is styled as a **three-member council** out of which **one member will be a government officer (holding the post ex officio)** while the **other two members will be independent representatives**.
- Users can file a **complaint** against the order of the grievance officer within **30 days**.
- Importantly, the **GAC** is required to adopt an **online dispute resolution mechanism** which will make it more accessible to the users.
- Also, the **institution of the GAC would not bar the users from approaching the court** against the order of the grievance officer.

Remote voting for NRIs?

Relevance: Prelims & Mains Paper II; Governance

Voting Statistics of NRI

- **Largest diaspora population -** According to estimates, India has the largest diaspora population, with nearly **1.35 crore non-resident Indians** spread across the globe.
- **Extremely low registration and turnout -** In the 2019 Lok Sabha elections, **99,844 NRIs registered and 25,606 electors turned up to vote.**
- **Requirement of vote in person -** A major reason for low NRI registration and voting despite India **amending the Representation of the People Act in 2010 to enable eligible NRIs who had stayed abroad beyond six months to vote** is the **condition that they have to visit the polling booth in person.**

Options for remote voting

- **Petitions in Supreme Court -** Since the in-person proviso of the amended Act discouraged many, petitions were filed in the Supreme Court between 2013 and 2014 by NRIs.
- **ECI Committee -** The Election Commission of India (ECI) formed a Committee in 2014 on the **Court's direction** to explore the options for overseas electors.
- **Two Options -** The committee narrowed it down to **two remote voting options — e-postal ballot and proxy voting.**

E-Postal ballot and proxy system

- **E-Postal Ballot** - The **Electronically Transmitted Postal Ballot System (ETPBS)** involves the **NRI voter sending an application** to the returning officer in person or online. The **returning officer will send the ballot** electronically. The **voter can then register their mandate on the ballot printout and send it back** with an attested declaration.
- **Proxy voting** - Proxy voting, meanwhile, enables voters to appoint proxies to vote on their behalf.
- **Available to Service voters** - **Both ETPBS and proxy voting are currently available** to only service voters, like those in the armed forces or diplomatic missions.
- In proxy voting system, it **could never be guaranteed that the proxy would vote as per the actual voter's choice.**
- **ETPBS** involves **“huge logistical challenges”** relating to **identity verification of voters, absence of polling agents, etc.**

What next?

- Besides the government's assurance in Court, the Law Ministry in March said that the **Centre was exploring the possibility of allowing online voting for NRIs.**
- The **Chief Election Commissioner** Sushil Chandra said in April that **ETPBS** for NRIs was being contemplated.
- It is **yet to be seen**, however, if any of the remote voting options materialise before the 2024 elections.

EWS Reservation upheld

Relevance: Prelims & GS Mains II; Polity & Governance

EWS Reservation

- The quota is available in **admissions to higher educational institutions**, and in **initial recruitment in central government jobs**.
- The amendment also empowered state governments to **provide reservation on the basis of economic backwardness**.

Challenges against the EWS reservation

- There were **two main challenges** that were raised against the 103rd amendment which provided for EWS reservation:
 1. The primary argument in this case was that the 103rd amendment **violated the “basic structure”** of the Constitution.

This argument emerged from the view that the special **protections guaranteed to socially disadvantaged groups is part of the basic structure**, and that the 103rd Amendment **departs from this by promising special protections on the sole basis of economic status**.
 2. The second argument was that reservation cannot **exceed the 50% ceiling limit**. The Supreme Court has repeatedly underlined the 50% ceiling on reservations imposed by the landmark **Indra Sawhney judgment of 1992**. On that basis, attempts by a number of states to provide reservations to specific groups have been struck down. Several of those issues can now be reopened.

Verdict

- The **Supreme Court has upheld the 103rd amendment** on both the grounds by a **majority of 3:2**.

- **First argument – Basic Structure violation**

Majority judges view - 3 judges have ruled that **reservation based only on economic criteria does not violate the basic structure of the Constitution**, and that the **exclusion of classes such as OBCs and SC/STs — in the 103rd amendment does not amount to discrimination** and hence does not damage the basic structure.

Minority judges view - 2 judges ruled that while **reservation on economic criteria is per se not violative of the Constitution**, **excluding SC/ST/OBC from the purview of EWS is violative of basic structure**.

They demand struck down of Articles 15(6) and 16(6) for being discriminatory and violative of the equality code. Article 15(6) and 16(6) provide for EWS reservation

Verdict

- **Second argument – 50% limit**

Majority judges view -

Reservations for EWS **does not violate basic structure** on account of 50% ceiling limit because **ceiling limit is not inflexible**.

Minority Judges view - **Permitting breach of 50% would result in compartmentalisation**, and the **rule of right to equality will become right to reservations**.

Criteria for EWS

- The EWS criteria for employment and admission was notified on January 31, 2019 by the **Department of Personnel and Training (DoPT)** based on the 103rd Amendment.
- Under the 2019 notification, a person who was **not covered under the scheme of reservation for SCs, STs, and OBCs**, and whose **family had a gross annual income below Rs 8 lakh**, was to be identified as EWS for the benefit of reservation.
- The notification **excluded** some persons from the EWS category if their families possessed certain **specified assets**.
- In October 2021, the **Supreme Court asked the government how the threshold of Rs 8 lakh had been reached**. The Centre told the court that it would revisit the income criterion, and set up a **three-member panel** for this purpose.
- In January this year, the government accepted the committee's report, which said that the "threshold of Rs 8 lakh of annual family income, in the current situation, **seems reasonable** for determining EWS" and "may be retained".
- However, the committee said, "EWS may...**exclude**, irrespective of income, a person whose family has **5 acres of agricultural land** and above". Also, the committee recommended, "the **residential asset criteria** may **altogether be removed**".

COP27 includes 'loss and damage' in main agenda

Relevance: Prelims & GS Mains II; Polity & Governance

Why in news?

- The ongoing climate change conference, COP27, made a promising start by including the issue of 'loss and damage' in its formal main agenda for the first time ever.
- So far, loss and damage had been discussed in a separate channel, with very little progress made on it.

What is 'loss and damage'?

- "Loss and damage" refers to costs the developed countries, who are majorly responsible for industrial emissions that pollute the environment, should pay to poorer nations that have made negligible contribution to pollution but are being affected by extreme climate events — for example, the devastating floods in Pakistan recently.
- While the vulnerable countries have been asking for climate damage finance for decades now, the rich countries have resisted it. Also, it is difficult to define and assess damage caused purely due to climate change.

Rationale behind Loss and Damage

- At its heart, the demand for compensation for loss and damage from climate disasters is an extension of the universally acknowledged “Polluter Pays” principle, that makes the polluter liable for paying not just for the cost of remedial action, but also for compensating the victims of environmental damage caused by their actions.
- In the climate change framework, the burden of responsibility falls on those rich countries that have contributed most of the greenhouse gas emissions since 1850, generally considered to be the beginning of the industrial age.
- Historical responsibility is important because carbon dioxide remains in the atmosphere for hundreds of years, and it is the cumulative accumulation of this carbon dioxide that causes global warming.

Responsibility of nations

- The United States and the European Union, including the UK, account for over 50 per cent of all emissions during this time.
- If Russia, Canada, Japan, and Australia are included, the combined contribution goes past 65 per cent, or almost two-thirds of all emissions.
- A country like India, currently the third largest emitter, accounts for only 3 per cent of historical emissions.
- China, which is the world’s biggest emitter for over 15 years now, has contributed about 11 per cent to total emissions since 1850.

Warsaw International Mechanism

- It was after much struggle that developing countries and environment groups managed to establish a **separate channel on loss and damages**.
- The Warsaw International Mechanism (WIM) for Loss and Damages, set up in **2013**, was the **first formal acknowledgment of the need to compensate developing countries struck by climate disasters**.
- But **discussions under WIM focused on enhancing knowledge, strengthening dialogue, and building technical expertise. No money was on offer.**

Resistance by rich countries

- Loss and damage claims can easily **spiral into billions of dollars**, or even more.
- According to a recent **report by the UN Office for the Coordination of Humanitarian Efforts (UNOCHA)**, prepared for the UN General Assembly, the **economic loss from cyclone Amphan in India and Bangladesh in 2020 has been assessed at \$15 billion**.
- The report further said that the **United States alone is estimated to have “inflicted more than \$1.9 trillion in damages to other countries”** due to its emissions.

Estimating the quantum of Loss

- There are **practical difficulties** in estimating how much a country has actually suffered due to the actions of others.
- There is the step about assessing **how much of the losses are due to the event itself, and what could be attributed to misgovernance**.
- For example, the **flooding witnessed in Bengaluru** recently could, to a large extent, be attributed to poor urban planning, even though a heavy downpour could be the result of climate change.

What now

- While including loss and damage into the COP's formal agenda — instead of the WIM — is a **good beginning**, it is just the first step.
- It might be **several years** before money actually begins to flow in **to compensate** poorer countries.
- Also, past record suggests that the quantum of money put on the table for climate change purposes is never commensurate to the requirements.

New PhD regulations

Relevance: Prelims & GS Mains II; Governance

Why in news?

- The University Grants Commission (UGC) has notified **new regulations on PhD** (Doctor of Philosophy) degrees.
- University Grants Commission (Minimum Standards and Procedures for Award of PhD Degree) Regulations, 2022 notified on November 7, **replace the Rules notified in 2016.**

1. Admission Criteria

First and foremost, the **eligibility criteria for admissions** have been changed. **Anyone with a four-year/eight-semester Bachelor's programme degree with a minimum 75 per cent marks** in aggregate or its equivalent grade will be eligible for a PhD.

Those joining PhD programmes after a four-year UG programme can do so after a one-year Master's degree. Graduates with conventional three-year UG degrees need to have completed two-year Master's degrees.

So far, a Master's degree with at least 55 per cent marks in aggregate was mandatory for doctoral aspirants. **Many universities also insisted on using M.Phil as the gateway.** The new Rules **discontinue** the M.Phil programme altogether.

2. Reservation

Apart from reserved category applicants, those falling under the **EWS bracket** will also be granted **five per cent relaxations**.

3. Procedure for admission

There are **no major changes** in the procedure for admissions. As was the norm so far, **universities and colleges will be free to admit students through the NET/JRF qualification route as well as entrance exams at the level of the institutions**.

The entrance **syllabus** shall consist of **50 per cent of research methodology**, and **50 per cent shall be subject-specific**, the Regulations say.

The proposed **common entrance test** for PhDs **has been left out** of the new Regulations.

4. Research supervisors eligibility

Eligible professors, associate professors, and assistant professors can continue to guide up to **eight, six, and four** PhD candidates respectively at any given time, as earlier.

The new Rules also **bar faculty members with less than three years of service** left before superannuation from taking new research scholars under their supervision.

Each supervisor can also **guide up to two international research scholars** on a supernumerary basis over and **above the permitted number of domestic PhD scholars**.

5. Compulsory training

It has introduced a new requirement for PhD scholars, irrespective of discipline, to **train in teaching / education/ pedagogy/ writing related to their chosen subject** during their doctoral period.

They may also be **assigned four to six hours per week of teaching/ research assistantship for conducting tutorial or laboratory work and evaluations**.

6. No need to publish papers in peer reviewed journals

The UGC has been grappling with this issue for quite some time, particularly with the proliferation of so-called “**predatory journals**”, where many doctoral scholars were found **publishing their research in return for a fee**.

7. Part-time PhDs

This is a new category introduced by the regulations. The eligibility conditions are the same for **both full-time and part-time candidates**. Their PhD work will be assessed in the same way as is done for the full-time PhD students.

Status of Phd Degrees

Over the years, annual enrolment figures in PhD have risen, but it still accounts for a **very small share of the higher education pie**. Also, **most PhDs in India are in the field of engineering and technology, followed by natural sciences**.

Release of all convicts in Rajiv Gandhi assassination case

Relevance: Prelims & GS Mains II; Governance

Why in news?

- The Supreme Court recently ordered the premature release of **all six remaining convicts** – including Nalini Sriharan – who were serving life sentences in the Rajiv Gandhi assassination case.
- The bench in its order took note of the case of A G Perarivalan, the **seventh convict, who was released in May**.
- **SC bench** said the May 2022 **judgment of the top court in the case of A G Perarivalan was applicable here as well**.
- Invoking its extraordinary power under **Article 142** of the Constitution, the top court had on May 18 ordered his release after he served over **30 years in jail**.

Rajiv Gandhi assassination

- Former prime minister Rajiv Gandhi was assassinated on the night of **May 21, 1991**, at Sriperumbudur in Tamil Nadu by a **woman suicide bomber identified as Dhanu**, at a poll rally.

Conviction

- The **TADA or Terrorist and Disruptive Activities (Prevention) Act** trial court had initially sentenced **26 people** to death in the case. In 1999, a few years after the TADA Act was allowed to lapse, the **Supreme Court upheld the conviction of only seven people, releasing all others.**
- The **SC order observed none of those convicted was part of the nucleus of the assassination team.**
- Of the seven convicts serving life terms in the case, in 1999, the Supreme Court sentenced **four of them to death and the other three to life imprisonment.** **Later on,** death sentence of all the convicts was **commuted** to life imprisonment.

Article 142 of the Constitution

- (“**Enforcement of decrees and orders of Supreme Court**) says “the Supreme Court in the exercise of its jurisdiction may **pass such decree or make such order as is necessary for doing complete justice** in any cause or matter pending before it, and any decree so passed or order so made shall be **enforceable throughout the territory** of India in such manner as may be prescribed by or under any law made by Parliament and, until provision in that behalf is so made, in such manner as the President may by order prescribe.”
- Essentially, this provision of the Constitution gives the country’s top court-wide powers to do “complete justice” in a case.

New TV broadcast guidelines

Relevance: Prelims & GS Mains II; Governance

Why in news?

- Ministry of Information and Broadcasting has recently issued 'Guidelines for Uplinking and Downlinking of Satellite Television Channels in India, 2022'.
- The new guidelines have been amended after a **gap of 11 years**, and a number of **steps** have been taken for **ease of doing business**.
- There are more than **870 channels** operating in the country now.

National importance & social relevance content

- It is obligatory under the guidelines for all TV channels, including private channels, to “undertake public service broadcasting for a **minimum period of 30 minutes in a day** on **themes of national importance and of social relevance**”.
- **Rationale** - The **government** has argued that since “**airwaves/ frequencies are public property**” they “**need to be used in the best interest of the society**”.
- **Criticism** - Representatives of several broadcasters pointed out that while airwaves may be public property, they had paid **hefty fees** for their use — any **binding guidelines** that **adversely impact their commercial interests** may not, therefore, be fair.
- **Exemption** - The condition **applies to all channels, except those specifically exempted**. Officials said the exemption may also apply to **wildlife channels and foreign channels, besides live telecasts in the case of sports channels**.

Ease of doing business provisions

- **News agency permission for 5 years:** The new guidelines **allow a news agency to get permission for five years instead of the current one year.**
- **Specific and rationalized penalties:** The penalty clauses have been **rationalised**, and **separate sets of penalties** have been proposed for different types of contraventions as **against the uniform penalty** that is applicable currently.
- **Uplink foreign channels from Indian teleports:** Broadcast companies will be **allowed to uplink foreign channels from Indian teleports**, which would create **employment opportunities** and make India a teleport hub for other countries. Singapore is considered the hub of teleport uplinking, but after the new guidelines come into effect, foreign channels are expected to show greater interest in using Indian teleports.

Eklavya Model Residential Schools (EMRS)

Relevance: Prelims & GS Mains II; Governance

Recent Government Push

- The Narendra Modi-led government is pushing to set up 740 Eklavya Model Residential Schools (EMRS) for tribal students — one each in every sub-district that has at least a 20,000-odd Scheduled Tribe population, which must be 50% of the total population in that area.
- The EMRS model was first introduced in 1997-98 to provide quality education to tribal students with residential facilities in remote corners. The aim was to build schools at par with the Jawahar Navoday Vidyalayas and Kendriya Vidyalayas.

Position before

- Until 2018-19, the scheme was overseen by the Ministry of Tribal Affairs with maximum control of identifying new schools, recruiting, management and admissions lying with State governments.
- The funds for these schools were provided by the Union government.
- Apart from the infrastructural requirements of 20-acre plots for each EMRS by Union government, the guidelines did not have any criteria of where the EMRS could be set up, leaving it to the discretion of State governments.

Revamp of scheme

- In 2018-19, at the bidding of Mr. Modi, the Cabinet approved the revamping of the EMRS scheme.
- The new guidelines gave the Union government more power to sanction schools and manage them.
- A National Education Society for Tribal Students (NESTS) was set up and entrusted with the management of the State Education Society for Tribal Students (SESTS), which would run the EMRS on the ground.
- The new guidelines set a target of setting up an EMRS in every tribal sub-district and introduced a “population criteria” for setting them up. The new guidelines also reduced the minimum land requirement from 20 acres to 15 acres.

Present status of EMRS Scheme

- Ministry officials said that as of November, a total of 688 schools have been sanctioned, of which 392 are functional.

New data protection Bill

Relevance: Prelims & GS Mains II; Governance



Why in news?

- The latest draft of the data protection law — the **Digital Personal Data Protection Bill, 2022 (DPDP Bill, 2022)** — has now been made **open for public comments** and the government is expected to introduce the Bill in Parliament in the budget session of 2023.

Fourth Draft Bill

- This is the **fourth iteration** of a data protection law in India. The **first draft of the law** — the **Personal Data Protection Bill, 2018**, was proposed by the Justice Srikrishna Committee.
- The **government made revisions to this draft and introduced it as the Personal Data Protection Bill, 2019 (PDP Bill, 2019)** in the Lok Sabha in 2019.
- The Lok Sabha passed a motion to refer the PDP Bill, 2019 to a **joint committee** of both the Houses of Parliament. Due to delays caused by the pandemic, JPC **submitted its report on the Bill after two years in December, 2021**.
- The report was accompanied by a **new draft bill**, namely, the Data Protection Bill, 2021 that incorporated the recommendations of the JPC.
- However, in August 2022, citing the report of the JPC and the **“extensive changes”** that the JPC had made to the 2019 Bill, the **government withdrew the PDP Bill**.

Need of bill

- The current legal framework for privacy enshrined in the Information Technology Rules, 2011 (IT Rules, 2011) is wholly inadequate to combat such harms to data principals, especially since the **right to informational privacy has been upheld as a fundamental right by the Supreme Court (K.S. Puttaswamy vs Union of India [2017])**.

Scope of the bill

- The DPDP Bill, 2022 **applies to all processing of personal data that is carried out digitally**. This would include both personal data **collected online** and personal data **collected offline** but is digitised for processing. In effect, it is **completely inapplicable to data processed manually**.
- Furthermore, as far as the territorial application of the law is concerned, the **Bill covers processing of personal data which is collected by data fiduciaries within the territory of India** and which is processed to offer goods and services within India.
- The current phrasing seems to **exclude data processing by Indian data fiduciaries** that collect and process personal data outside India, **of data principals who are not located in India**.
- This position further seems to be emphasised with the DPDP Bill, 2022 exempting application of most of its protections to personal data processing of non-residents of India by data fiduciaries in India.

Protection expected

- The bulwark of most data protection legislations consists of **allowing maximum control to the data principal** over their personal data.
- This happens by mandating a **comprehensive notice to the data principal on different aspects of data processing** based on which the data principal can provide **explicit consent** to such processing.
- While **limited circumstances for non-consent based processing** of personal data exists, it **still gives the data principal the right to access, correct, delete etc their data.**
- Concomitantly, the data fiduciary has data minimization obligations:
 - Collect only such personal data as is required to fulfil the purpose of processing (**collection limitation**);
 - Process it only for the purposes stated and no more (**purpose limitation**)
 - Retain it in its servers only for so long as is required to fulfil the stated purpose (**storage limitation**).

Issues with Current draft

- The current draft **removes explicit reference to certain data protection principles such as collection limitation.**
- **Making collection solely contingent on consent**, ignores the fact that data principals often do not have the requisite know-how of what kind of personal data is relevant for a particular purpose.
- Depending on the increased potential of harm that can result from unlawful processing of certain categories of personal data, most data protection legislations **classify these categories as “sensitive personal data”**. By doing away with this distinction, the DPDP Bill, 2022 does away with these additional protections.
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Narco analysis and Polygraph Test - Aaftab Poonawala Case

Relevance: Prelims & Mains Paper II; Polity & Governance



Why in news?

- Days after a Delhi court agreed to a narco test, the Delhi Police approached a court to conduct a polygraph test on Aaftab Poonawala, suspected of killing his partner Shraddha Walkar, to help investigators find the missing weapon and other evidence in the murder case.
- Both Polygraph test and Narco Analysis test are used for investigation purposes. However, there are significant differences between the two.

Polygraph or Lie Detector Test

- In this test, Physiological responses of an individual such as blood pressure, pulse rate, respiration, and skin conductivity are measured and recorded while a person is being investigated. The recording of such physiological responses generates multiple graphs and hence, the name Polygraph test.
- Polygraph test is based on the assumption that when an individual lies, he or she experiences higher level of arousal, than the level of arousal experienced at the time of speaking truth. These different levels of arousals are reflected in different set of physiological responses and polygraph readings.
- Polygraph Test is not of very intrusive nature and does not invade privacy to a large extent.

Narco Analysis Test

In this test, **Sodium Pentothal**, also known as 'truth serum' is injected in a person, inducing a **hypnotic state** of mind.

This drug is **used in higher doses as anaesthesia** during the surgery. It is believed that when in the hypnotic state of mind, the **guard of the person is down and the person may speak the truth**.

Narco Analysis is **very intrusive** from of investigative measure and it may invade privacy of the accused.

Supreme Court View

- The Supreme Court has held that narco analysis and polygraph tests **cannot be carried on a person without his or her informed consent**.
- Further, the **testimony during Narco Analysis is not admissible in the Court** as the person is under influence of drug.
- Also, **Results of Polygraph cannot be accepted as concrete evidence** against the accused.
- However, the **information gathered during such tests may aid the investigating authorities to gather admissible evidence**.

SC questions process of appointments to Election Commission

Relevance: Prelims & Mains Paper II; Governance

Why in news?

- Supreme Court on November 24 questioned the “haste” and “tearing hurry” with which Election Commissioner (EC) Arun Goel was appointed, with the file moving at “lightning speed” in 24 hours.
- A five-judge Constitution Bench led by Justice K M Joseph is hearing petitions seeking a Collegium-type body to appoint Election Commissioners (ECs) and the Chief Election Commissioner (CEC).

Size of the Commission

- The Constitution does not fix the size of the Election Commission. Article 324(2) says that The Election Commission shall consist of the Chief Election Commissioner and such number of other Election Commissioners, if any, as the President may from time to time fix.
- From the beginning, the Election Commission of India consisted of just the Chief Election Commissioner.
- However, in 1989, the Rajiv Gandhi government appointed two more Election Commissioners, making the Election Commission a multi-member body.
- But, in 1990, the National Front government of Prime Minister VP Singh made EC a single-member body again.
- However, in 1993, PV Narasimha Rao government made Election Commission a three membered body.

Procedure for appointments

- The SC Bench asked the Centre about the mechanism followed in the appointment of Election Commissioner.
- Attorney General gave the reply- “A list of serving and retired officials in the position of Secretaries... is prepared.
- On the basis of this, a panel of names is prepared for consideration of the Prime Minister and President.
- The PM, after considering the panel, recommends one name to the President. A note with the recommendation is submitted to the President of India.”
- The appointment of ECs follows seniority and the senior among the two ECs goes on to become the CEC.
- The SC Bench questioned that how the whole process of appointment was completed in single day in case of present appointment.

Reforms in Election Commission

- The Constitutional bench is considering the following reforms for seeking the functional independence of Election Commission:
 1. **Appointments:** Presently, CEC and ECs are appointed by the President on the advice of Council of Ministers.
 2. **Removal:** Presently, CEC can be removed only in a manner in which the judge of Supreme Court is removed.
- The Constitutional bench is considering that the Appointment of CEC and ECs to be made by a collegium of PM, CJI and Leader of Opposition.
- However, EC can be removed by the President on the recommendation of CEC. CEC can give the recommendation only when the President asks for it. Moreover, the recommendation of CEC is not binding on the President.

Reforms in Election Commission

- The Constitutional bench is **considering the same procedure for removal of EC as that of CEC.**
- 3. The Constitutional bench is also considering to confer **Rule-making Powers** to Election Commission to regulate its functioning, like that enjoyed by Supreme Court, Lok Sabha and Rajya Sabha.
- 4. The Constitutional bench is also considering the **Independent Secretariat and budget for the Commission.**

Who was T N Seshan, who changed the face of Indian elections?

Relevance: Prelims & Mains Paper II; Polity & Governance



Why in news?

- Mooting the idea of including the Chief Justice of India in the appointment committee to select the Chief Election Commissioner (CEC) to ensure “neutrality”, the Supreme Court said it wants a **CEC of strong character like the late T N Seshan**.
- “There have been numerous CECs and T N Seshan happens once in a while.” the SC bench said.

Who was TN Seshan?

- **Tirunellai Narayana Iyer Seshan**, or T N Seshan as he was commonly called, was appointed the Chief Election Commissioner (CEC) on **December 12, 1990 with a tenure till December 11, 1996**.
- Born in Palakkad district of Kerala, Seshan is widely credited for **ushering in electoral reforms** that changed the face of Indian elections.
- Before becoming the CEC, Seshan had **served many bureaucratic** positions including the **secretary to the Atomic Energy Commission** and **joint secretary at the Department of Space**.
- In **1996**, Seshan received the **Ramon Magsaysay Award** for his role in **cleaning up the electoral process in the country**.
- He also unsuccessfully **contested the presidential elections** against K R Narayanan in 1997. He breathed his last on November 10, **2019** in Chennai.

Reforms under TN Seshan

- Established in 1950 as the constitutional authority to hold free and fair elections in India, the **Election Commission of India was not more than an observer of elections until 1990.**
- At a time when it was **normal to bribe voters**, Seshan enforced the authority of the EC as per its powers laid out in the Constitution.
- He **changed the process of conducting elections in the nation and introduced a list of 150 malpractices during elections**, including distribution of liquor, bribing voters, ban on writing on walls, use of religion in election speeches etc.
- He introduced voter ID cards, the **Model Code of Conduct**, and enforced a limit to poll expenses.

Rift with Government

- Seshan also had several rifts with the ruling government. In 1993, the then **government under P V Narasimha Rao** brought in an **Ordinance** with the President's assent under Article 342(2) of the Indian Constitution fixing the number of EC's at two and appointed the two EC's. The Ordinance was subsequently replaced by **law**.
- Opposing this, **Seshan approached the Supreme Court** alleging that the move was introduced to curb his powers.
- His **petition was dismissed by the court**, and SC held, "**Article 324, clause (2) clearly envisages a multi-member Election Commission comprising the CEC and one or more ECs.**"

National Suicide Prevention Strategy: Framework and objectives



Relevance: Prelims & Mains Paper II; Governance

Why in news?

- The **Ministry of Health and Family Welfare** on November 21 **unveiled the National Suicide Prevention Strategy** — the **first-of-its-kind policy** formulated by the government to prevent suicides as a public health priority.
- According to the ministry, the policy that will set the stage for **promotion of mental health and prevention of suicides in the coming decade**.
- The **goal** of the strategy is to **reduce suicide mortality in the country by 10 per cent by 2023**. The strategy provides a framework for **multiple stakeholders** to implement activities for prevention of suicides in the country.

Objectives of Strategy

- There are **three main objectives** of the strategy:
- First, it seeks to **establish effective surveillance mechanisms** for suicide within the **next three years**.
- Second, it seeks to **establish psychiatric outpatient departments** that will provide suicide prevention services through the **District Mental Health Programme** in all districts within the **next five years**.
- Third, it aims to **integrate a mental well-being curriculum** in all educational institutions within the **next eight years**.

Stakeholders in implementation

- The implementation framework of the National Suicide Prevention Strategy envisions **five key stakeholders** responsible for realising the objectives.
- These include **national-level ministerial stakeholders, state-level governmental stakeholders, district-level governmental stakeholders, NIMHANS-Bangalore and other top mental health institutes, and strategic collaborators.**

Current scenario of suicides

- According to the annual report of the National Crime Records Bureau (NCRB), released in August, **1.64 lakh people died by suicide in 2021** — an increase of 7.2 per cent from 2020.
- This is **10 per cent higher than the COVID deaths (1.48 lakh) in India in 2020, and 6.8 times the maternal deaths (23,800) in the same year.**
- In the past three years, the suicide rate in the country has increased from **10.2 to 11.3 per 1,00,000 population.**
- Most suicides in India are by **youth and middle-aged adults** — with 65 per cent of the suicides in 2020 being reported in the age group of 18-45 years.

Ongoing suicide prevention initiatives in India

- The **National Mental Health Policy (2014)** sees prevention of mental disorders, reduction of suicide and attempted suicide as core priority areas.
- The **Mental Healthcare Act 2017** brought in some necessary changes. The Act that **came into force from May 2018** effectively **decriminalised attempted suicide**, which was punishable under **Section 309** of the Indian Penal Code. It ensured that the individuals who have attempted suicide are **offered opportunities for rehabilitation from the government as opposed to being tried or punished**.
- Several national programmes such as the **National Mental Health Program, National Palliative Care Program, Ayushman Bharat and Nasha Mukti Abhiyaan Task Force** are also in place.

Supreme Court launches online RTI portal

Relevance: Prelims & Mains Paper II; Governance



Why in news?

- The Supreme Court on launched an **online portal that will help citizens file and access applications under the Right to Information (RTI) Act in matters related to the court.**
- Chief Justice DY Chandrachud said that the portal would be ready to use shortly.

Initiative for Portal

- The online RTI portal has been initiated to make it convenient for people to access information about the Supreme Court.
- **So far, RTI applications at the Supreme Court had to be filed only via post.**
- Various **public interest litigation (PILs) had been filed** before the Supreme Court seeking an online RTI portal for the Court.
- **Though the Supreme Court had provided a mechanism for filing petitions online, it did not provide the same when it came to the filing of RTI applications.**

Fees Charged

- The applicant can pay the prescribed fee through internet banking, credit/debit card of Master/Visa or UPI. **The fee per RTI application is ₹10.**
- Any **applicant who is Below Poverty Line (BPL) is exempted to pay the application fee** under the RTI Rules, 2012. The applicant must **attach and upload a copy of the BPL certificate issued by the government.**

2023 Republic Day Chief Guest - Egypt president al-Sisi

Relevance: Prelims & Mains Paper II



Why in news?

- Egypt president al-Sisi becomes the 2023 Republic Day Chief Guest after a two-year pandemic-induced hiatus.
- President al-Sisi will be the first Egyptian leader to grace the occasion.

What is so special?

- Every year during Republic day, a chief guest, who usually is a top-level executive or a ceremonial head of a nation, is invited.
- This visit is similar to the State visit by that top executive or head of a state, but since there is a ceremony involved, it is the highest honour we can offer to the guest.
- The chief guest is awarded a ceremonial guard of honour at the Rashtrapati Bhavan and also attends the reception in the evening hosted by the president of India.
- He also attends the parade at Rajpath, attends a lunch hosted by the prime minister and then meets the vice-president and external affairs minister.

Deciding upon Chief Guest

- The government of India **extends its invitation** to a head of state or Government **after a lot of considerations**.
- This **process begins almost six months before** the Republic day around July.
- The **decision** is made by the **ministry of external affairs after many considerations** like the nature of India's relationship with the countries concerned.
- After all these deliberations, **MEA seeks approval of Prime minister and President's office**.
- After this approval, **India's ambassadors in the concerned countries discreetly try to ascertain the availability** of the chief guest around the time of Republic day. It may well be that the high dignitary has an unavoidable engagement at that time, such as a session of Parliament or an incoming State visit.
- **After all this process a formal invitation is extended**. Once the invitation is accepted, required arrangements are made.

INTERNATIONAL
ORGANISATIONS
&
BILATERAL
RELATIONS

Attack on former Pakistan Prime Minister Imran Khan

Relevance: Prelims & GS Mains II; International Issues

Why in news?

- Pakistan's former prime minister Imran Khan was **shot at during his protest march** in Pakistan's Punjab province recently.
- Imran Khan sustained a bullet injury when an unidentified gunman opened fire on the container-mounted-truck carrying him during his protest rally in Pakistan's Punjab province. Khan, 70, was hit in the **right leg**.
- He has been shifted to a hospital and is **out of danger**.

Claim by assailant

- In a video uploaded, a man who claims to be the assailant said he wanted to kill Imran Khan as the former PM is "**misleading people**."
- "I wanted to eliminate him because he (Imran Khan) was misleading the people. I tried to shoot him and nobody else. I made the decision when he left from Lahore. I acted alone, **nobody else is involved**," the alleged shooter was heard saying in the video.

About the rally

- The incident occurred near Allahwala Chowk of Wazirabad town of Punjab.
- The **long march** commenced on **October 28 from Lahore and is expected to reach the capital city, Islamabad, on November 4**, covering nearly 380 km over a week's time.
- Dubbing the rally as one of the **"biggest freedom movements"** in Pakistan, Khan had said that he was marching to press the government to **announce elections immediately**.
- The move came days after **Pakistan's Election Commission disqualified Khan from holding public office for five years on the charge of hiding proceeds from the sale of gifts he received from foreign leaders**.

Indo-Russia relations in context of Russia – Ukraine war

Relevance: Prelims & GS Mains II; International Issues

Praise of Indians

- For the second time this week, **Russian President Vladimir Putin has praised India by calling its citizens “talented” and “driven”, and spoke about the “outstanding results” that the country would achieve** in terms of its development.
- Earlier this week, **Putin showered praises on Prime Minister Narendra Modi**. His remarks come just ahead of External Affairs Minister S Jaishankar’s visit to Moscow on November 7 and 8.

India’s response

- India has **not yet condemned the Russian invasion of Ukraine** and it has been maintaining that the **crisis must be resolved through diplomacy and dialogue**.
- In September, Putin and Modi met on the sidelines of the Shanghai Cooperation Organisation where the latter urged the Russian President to end the war in Ukraine. PM Modi said that today’s era was not of war, adding Putin should return to the path of dialogue.

India's stand on UNSC Resolutions

- Recently, India abstained on yet another resolution involving Ukraine. The motion sponsored by Russia at the UNSC sought to establish a commission to investigate claims by Moscow that the US and Ukraine are carrying out “military biological activities” in laboratories in Ukraine in violation of the biological weapons convention.
- In September, India had abstained while Russia vetoed a draft UN Security Council resolution tabled by the US and Albania (African nation) to condemn Moscow’s “illegal referenda” and declare the annexation of four Ukrainian territories as invalid.

G20 Logo

Relevance: Prelims & GS Mains II; International Organisations

G20 Logo

- Prime Minister Narendra Modi recently unveiled the logo, theme and website of **India's G20 presidency**.
- The logo bears a **lotus** and the message of '**Vasudhaiva Kutumbakam** — One Earth, One Family, One Future'.
- Why Lotus?
- Speaking at the launch, the PM said the **lotus is a symbol of hope**. "The world is going through the after-effects of a disruptive once-in-a-century pandemic, conflicts and lot of economic uncertainty. The symbol of the lotus in the G20 logo is a representation of hope in these times."



What is G20?

- The G20 was formed in 1999 in the backdrop of the financial crisis of the late 1990s that hit East Asia and Southeast Asia in particular. Its aim was to secure global financial stability by involving middle-income countries.
- Its prominent members are: Australia, Brazil, China, France, Germany, India, Japan, Republic of Korea, Russia, Saudi Arabia, South Africa, Turkey, the UK, the US, and the EU. Spain is invited as a permanent guest.
- G20 is the premier forum for international economic cooperation representing around 85 per cent of the global GDP, over 75 per cent of the global trade, and about two-thirds of the world population.

G20 Presidency

- The presidency of the G20 rotates every year among members, and the country holding the presidency, together with the previous and next presidency-holder, forms the 'Troika' to ensure continuity of the G20 agenda.
- During India's presidency, India, Indonesia and Brazil will form the troika. This would be the first time when the troika would consist of three developing countries and emerging economies.
- India will assume the presidency of the powerful G20 grouping from the current chair, Indonesia, on December 1, and hold the post for a year.
- The G20 Leaders' Summit at the level of Heads of State/Government is scheduled to be held on September 9 and 10, 2023 in New Delhi.

How does the G20 work?

- The G20 has **no permanent secretariat**. The **agenda and work are coordinated by representatives of the G20 countries, known as 'Sherpas', who work together with the finance ministers and governors of the central banks.**
- India has announced that **ex-NITI Aayog CEO Amitabh Kant would be the G20 Sherpa after Piyush Goyal.**
- The **first G20 Summit took place in 2008 in Washington DC, US.**
- In **addition to Summits, the Sherpa meetings (that help in negotiations and building consensus), and other events are also organised throughout the year.**

Russia's withdrawal from Kherson

Relevance: Prelims & GS Mains II; International Issues

Why in news?

- Ukraine's defence and intelligence unit has reported on the **withdrawal of Russian troops from Kherson** but predicts it to be a delusion for a retreat.
- Geographically, Kherson is a **strategic location** for Russia and Ukraine. Situated in the **northwest of the Dnipro River**, the province **shares borders with Donetsk, Crimea, and the Black Sea**.



Importance of Kherson

- With Moscow capturing **Crimea in 2014**, the **occupation of Kherson in March 2022** has benefited Russia in transferring its military from Crimea to counter Ukraine.
- It provides **access to Odesa and Black Sea ports** in the west and serves as the main route to **secure southern Ukraine**.
- **For Ukraine, regaining Kherson is significant to recapture Crimea**. Kherson is also an important region for its **agricultural produce, with irrigation channels**.

Why withdrawal by Russia?

- There are **three reasons** behind the move.
- First is the **mobilisation failure**. When Russia was advancing rapidly in capturing the southern and northern cities of Ukraine, its military personnel and weapon systems started to run thin.
- Secondly, the **inability of Russia to govern Kherson**. Despite imposing martial law, Russia could not effectively rule Kherson; the three-level security in the occupied areas could not enforce Russia's control on the ground.
- Third, As Moscow continued its onslaught, the **West upgraded its support with medium to high-range weapons systems** such as the Howitzers, HIMARS, air defence systems, battle tanks, and drone technologies.

US' Currency Monitoring List and India

Relevance: Prelims & GS Mains II; International Issues

Why in news?

- In its biannual report to Congress, the US' Treasury Department announced that it had **removed India, Italy, Mexico, Vietnam and Thailand** from the United States' Currency Monitoring list.

US' Currency Monitoring List

- Those countries are kept on this list, which **deliberately keep their currency depreciated** in order to promote exports to the US.
- As its name suggests, the list **closely monitors the currency practices and policies of some of the US' major trade partners.**
- Once on the list, an economy will **remain there for at least two consecutive reports** so that the Treasury can assess whether any improvements in performance is durable and not due to temporary factors.

Countries on the list

- These 7 countries are presently on the list:
 - China
 - Japan
 - Korea
 - Germany
 - Malaysia
 - Singapore
 - Taiwan

Why India has been removed from the list?

- India and four other countries were removed from the Monitoring List as it is apparent to the US that these countries do not adhere to any currency manipulative practices.
- India has been on the list for about two years.
- In its report, the Treasury Department explained why China still remained on the list. “China’s failure to publish foreign exchange intervention and broader lack of transparency around key features of its exchange rate mechanism makes it an outlier among major economies and warrants Treasury’s close monitoring.”

East Asia Summit

Relevance: Prelims & GS Mains II; International Issues

Why in news?

- Vice President Jagdeep Dhankhar addressed the East Asia Summit on the visit to Cambodia, as the three-day Association of South East Asian Nations (ASEAN) summit concluded.
- EAS is held on the sidelines of ASEAN Summit.

East Asia Summit

- Beginning in 2005, 16 participating countries comprise this grouping, with their first meeting in Kuala Lumpur, Malaysia.
- These members were the 10 ASEAN countries, Australia, China, India, Japan, New Zealand, and the Republic of Korea.
- ASEAN's 10 member countries are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
- The United States and the Russian Federation joined at the 6th East Asia Summit in 2011.
- EAS is an ASEAN initiative and refers to the annual Meeting of Heads of States/Governments of these countries, where they are able to discuss common concerns and interests.
- Its creation was based on the idea of enhancing cooperation among East Asian countries and those in the neighbouring regions.

EAS's links with India

- This year marks the **30th anniversary of ASEAN-India relations** and is being celebrated as the **ASEAN-India Friendship Year**.
- In a joint statement, ASEAN-India acknowledged the deep civilisational linkages, maritime connectivity, and cross-cultural exchanges between Southeast Asia and India which have grown stronger over the last 30 years, providing a strong foundation for ASEAN-India relations.

Istanbul terror act

Relevance: Prelims & GS Mains II; International Issues

What happened?

- Bomb explosion killed six people and injured at least 80 at **Istiklal Avenue** located in Istanbul, Turkey.
- **Kurdish militants (PKK is the organisation)** are responsible for the terror attack.
- In **1978**, the Marxist revolutionary **Abdullah Öcalan** formed the **Kurdistan Workers' Party (Partiya Karkerên Kurdistanê or PKK** in Kurdish) with the aim of setting up an **independent Kurdistan**.

Kurds

- Kurds are an ethnic group in the Middle East, mostly **inhabiting a contiguous area comprising southeastern Turkey, north-western Iran, northern Iraq, north eastern Syria and south-western Armenia**.
- Since the early 20th century, Kurds are **considering the creation of a Kurdish homeland called 'Kurdistan'**.



World Bank report on Financing infrastructure in India's cities

Relevance: Prelims & GS Mains II; International Issues

| Why in news? | Need for investment | Present status |
|--|--|---|
| <ul style="list-style-type: none">- According to the World Bank, India would need to invest \$840 billion over the next 15 years, that is, an average of \$55 billion each year, to meet the demands of its fast-growing urban population.- Its latest report, titled 'Financing India's Urban Infrastructure Needs: Constraints to Commercial Financing and Prospects for Policy Action', puts forth the urgent requirement to leverage greater private and commercial investments to meet the emerging financial gaps. | <ul style="list-style-type: none">- By 2036, 600 million people will be living in urban cities in India, representing 40 percent of the population.- This is likely to put additional pressure on the already stretched urban infrastructure and services of Indian cities – with more demand for clean drinking water, reliable power supply, efficient and safe road transport amongst others. | <ul style="list-style-type: none">- Currently, the central and state governments finance over 75 percent of city infrastructure, while urban local bodies (ULB) finance 15 percent through their own surplus revenues.- Only 5 percent of the infrastructure needs of Indian cities are currently being financed through private sources. With government's current (2018) annual urban infrastructure investments topping at \$16 billion, much of the gap will require private financing. |

Poland row: What invoking NATO's Article 4 means

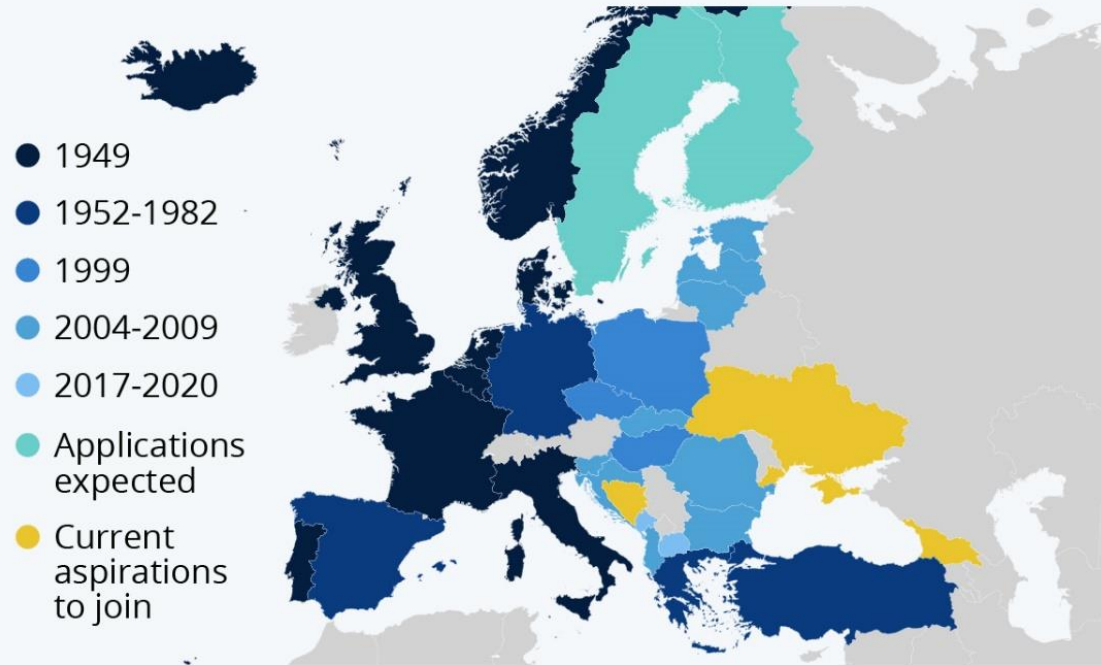
Relevance: Prelims & GS Mains II; International Issues

Why in news?

- Russian missile killed two citizens in Poland. Poland initially claimed that the missile was Russian-made, but later back-tracked, saying that the incident appears to be an “unfortunate accident” and not an “intentional attack.”
- In the initial reactions, Polish Prime Minister Mateusz Morawiecki had said that the country was considering whether it should launch NATO's Article 4 procedure.
- Any attack on Poland, a NATO member, could drag the 30-nation strong alliance into the Russia-Ukraine conflict, risking a full-fledged nuclear war.

Will NATO Expand North?

European countries by year they joined NATO



Map excludes NATO members the United States and Canada
Source: NATO



NATO

- The **North Atlantic Treaty Organisation** came into being **after World War II** as a counter to the Soviet Union's possible expansion attempts in Europe.
- **Then-US President Harry S Truman** signed the **12-member treaty** on **April 4, 1949**.
- After the **collapse of USSR in 1991**, **several eastern European nations** previously members of the Soviet Union **joined NATO**.

NATO's expansion

- As of now, NATO **comprise 30 members** — Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, the United States, Greece, Turkey, Germany, Spain, Czechia, Hungary, Poland, Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia, Albania, Croatia, Montenegro, and North Macedonia.
- Following the **Russian invasion of Ukraine**, **Finland and Sweden applied** for NATO membership and were invited to join the collective by 28 of the 30 members, with Turkey and Hungary being notable exceptions.
- **Bosnia and Herzegovina, Georgia and Ukraine** have expressed interest in joining the collective as well.

NATO's core duties

- The NATO works on a **collective defense principle** and routinely undertakes exercises to strengthen their territorial, naval, and air forces.
- NATO members also arm themselves to face evolving methods of attacks like cybercrimes, and have participated in military operations in Bosnia and Herzegovina, Kosova, Afghanistan, Iraq, Libya and Syria, among others.
- **Article 4 of the treaty** mandates that the **member nations consult each other when faced with threat**. “The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened.”
- Meanwhile, **Article 5 spells out the ‘one-for-all, all-for-one’ nature of the treaty**. It reads: “**The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all** and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence recognised by Article 51 of the Charter of the United Nations, will **assist the Party or Parties so attacked** by taking forthwith, individually and in concert with the other Parties, **such action as it deems necessary**, including the use of armed force, to restore and maintain the security of the North Atlantic area.”

Takeaways from the G20 summit in Bali

Relevance: Prelims & GS Mains II; International Organisations



The G20 summit took place in Bali, Indonesia in November, 2022. Here are important takeaways from the summit.

1. India's role in Russia -Ukraine war

G20 communique echoed Prime Minister Narendra Modi's message to Russian President Vladimir Putin, underlining that "Today's era must not be of war."

This, according to Indian officials, was an **outcome of consensus-building approach** adopted by India, which helped bridge the gap between Russia and the Western countries led by the US.

2. Biden -Xi Jinping Meet

US President Joe Biden met with Chinese President Xi Jinping on the sidelines of G20, their first face-to-face conversation as leaders of their two countries.

The presidents **talked for about three hours** at a time when the ties between their countries have been strained, and their post-meeting comments are seen as an incremental step towards rebuilding the fractured relationship.

3. Modi- Xi Meet

Modi and Xi met at dinner hosted by Indonesian President Joko Widodo. This was possibly one of the most stark images out of the summit, as the two leaders — who had met at least 18 times between 2014 and 2019 — met after a two-year hiatus.

The last time Modi and Xi had been seen interacting in public was in Brazil in November 2019, on the sidelines of the BRICS summit. In October 2019, Xi visited India for an informal summit in Mahabalipuram.

In September this year, the two leaders attended the SCO summit in Samarkand, Uzbekistan, but there were no photographs or statements about a meeting between them.

4. India has got the presidency of the G20

India has got the presidency of the G20, the first time the country will be holding an international summit of this scale.

Indonesia's President handed over the gavel to the Indian Prime Minister as the next chair of the grouping. New Delhi will host G20 leaders for the summit on September 9 and 10, 2023.

Terror Funding Meet



Relevance: Prelims & GS Mains II; International Organisations

Why in news?

- India hosted the **Third No Money for Terror (NMFT) Conference** on November 18-19.
- Delegates from 75 countries and international bodies attended the event, which took up the **ways to combat global terrorist financing**.
- **Prime Minister Narendra Modi** inaugurated the conference, with **Union Home Minister Amit Shah** among the attendees.

No Money for Terror conference

- The **NMFT** started in 2018 as an initiative of the French government which had, in 1989, laid the foundation of the **Financial Action Task Force (FATF)**, the international body at the forefront of **combating money laundering and terrorist financing**.
- The **Financial Action Task Force (FATF)** is another multilateral body that **monitors terror financing and money laundering**. An official said that NMFT is complimentary to **FATF** as the latter is **membership based** while **NMFT** is in **nature of ministerial conference**.

NMFT Conferences

- **The 2018 conference:** The 2018 event was titled “**International conference on combating the financing of Daesh and Al-Qaeda** (Paris, 25-26 April 2018)”.
- **The 2019 conference :**The **2019** conference was hosted by **Australia**.
- **Agenda for 2022 terror conference (Third No Money for Terror conference):** India was **supposed to host the conference in 2020**, but it was postponed due to the **pandemic**.
- The **agenda for the NMFT 2022** includes **use of virtual assets and crowdfunding platforms by terrorist entities**, their use of the **dark web**, the **links between terror financing and legitimate economic activities**, and **payment intermediaries**.

Demands by India

- India has **proposed a permanent secretariat** for “No Money for Terror,” a ministerial body, to sustain the continued global focus on countering the financing of terrorism.
- The Minister in his capacity as the chair of NMFT, also reiterated India’s position that **all countries will have to agree on one common definition of ‘terrorism’ and ‘terror financing’**, adding that it “**should not become a political issue.**”
- **Given its experience of China blocking its push for sanctions against Pakistan-based terror groups and terrorists**, it called for **UN listings and FATF to not be politicised**.
- He also called for the **prevention of the use of Non-Profit Organisations (NPOs) to spread terror Ideology**.

Honey Trapped

Relevance: Prelims & GS Mains II; Bilateral Relations

Why in news?

- The **Delhi Police** on November 18 **arrested a driver working with the Ministry of External Affairs** in connection with an alleged **espionage case**.
- Police sources said that the driver was '**honey trapped**' and is said to have passed on confidential information to the other accused involved in the case.
- The arrest took place after security agencies alerted the police that the driver was passing on the information to someone in Pakistan.

Meaning

- The practice of 'honey trapping' refers to the use of **romantic or sexual relationships to get information out of a target**.
- The information can be **used for monetary advancement or to achieve political ends**, such as in the case of state espionage. Sometimes, **honey traps are also laid for extortion or blackmail purposes**.

Previous case

- **K V Unnikrishnan, a Research and Analysis Wing (RAW) officer** was allegedly honey trapped in the 1980s, by a woman suspected of being a CIA (Central Intelligence Agency, the foreign intelligence agency of the United States).
- She was working as an **air hostess** with the **now-defunct Pan Am Airlines**, while Unnikrishnan was working as the **head of the Chennai division of RAW and dealing with the Liberation Tigers of Tamil Eelam (LTTE)**.
- Unnikrishnan was **arrested in 1987 for leaking information through the woman**. His arrest came just before the signing of a peace accord between India and Sri Lanka.

Qatar signs world's 'longest' gas supply deal with China

Relevance: Prelims & GS Mains II; International Relations

Why in news?

- QatarEnergy announced a 27-year natural gas supply deal with China on Monday, calling it the "longest" ever seen as it strengthened ties with Asia at a time when Europe is scrambling for alternative sources.
- Asian countries led by China, Japan and South Korea are the main market for Qatar's gas, which is increasingly being sought by European countries since Russia's invasion of Ukraine.
- Negotiations with European countries have struggled as Germany and others have baulked at signing the sort of long-term deals made with Asian nations.

Details of deal

- The state energy company will send four million tonnes of liquefied natural gas annually from its new North Field East project to China Petroleum and Chemical Corporation (Sinopec).
- China is the first country to seal a deal for North Field East.
- Qatar is the world's largest LNG supplier and China is the world's largest LNG importer.

Other facts

- The Chinese company's chairman revealed that it had also requested a full share of the North Field South project that is dominated by Western energy giants.
- TotalEnergies of France, Shell of Britain and U.S. giant ConocoPhillips will share the 25% foreign stake in the field.

India-Australia Economic Cooperation and Trade Agreement (Ind-Aus ECTA)

Relevance: Prelims & Mains Paper II; International Relations



Why in news?

- IndAus ECTA was signed on 2 April 2022. It is undergoing the ratification by legislatures in both the countries.
- The Agreement will enter into force shortly, on a mutually convenient date once both the sides have completed their domestic processes.

Benefits expected

- Duties on 100 percent tariff lines would be eliminated by Australia under the landmark India-Australia Economic Cooperation and Trade Agreement (Ind-Aus ECTA).
- The ECTA would give a big boost to several sectors of the economy, especially textiles, gems and jewellery and pharmaceuticals.
- Major gain is expected in Pharmaceuticals sector, where Drugs approved in other developed jurisdiction will get fast track approval for patented, generic and biosimilar medicines.
- Moreover, since the labour-intensive sectors will be benefitted, it is expected to create an additional employment of at least 10 lakhs jobs in India.
- The Agreement would also open new opportunities for the service sector in India and would immensely benefit students by offering them an opportunity to work in Australia. Annual Visa quota of 1800 is to be instituted for India Yoga teachers and Chefs.

Benefits expected (Contd.)

- Around 96% of Australia's exports are raw materials and intermediate products which will allow many Indian industries to get cheaper raw materials and make them competitive.
- ECTA provides for an institutional mechanism to encourage and improve trade between the two countries.
- It is expected that with this agreement, the total bilateral trade will cross US\$ 45-50 bn in 5 years from existing US\$ 31 bn. India's Merchandise Exports is likely to increase by 10 billion by 2026-27.

Indian Government to assume the Chair of Global Partnership on AI (GPAI)

Relevance: Prelims & Mains Paper II; International Orgs.



Why in news?

- India will take over the chair of the Global Partnership on Artificial Intelligence (GPAI), an international initiative to support responsible and human-centric development and use of Artificial Intelligence (AI).
- AI is expected to add USD \$967 Bn to Indian economy by 2035 and USD 450–500 billion to India's GDP by 2025, accounting for 10% of the country's USD 5 trillion GDP target.

About GPAI

- GPAI is a congregation of 25 member countries, including the US, the UK, EU, Australia, Canada, France, Germany, Italy, Japan, Mexico, New Zealand, Republic of Korea, and Singapore.
- India had in 2020 joined the group as a founding member.
- The Minister of State for Electronics & Information Technology and Skill Development & Entrepreneurship, Shri Rajeev Chandrasekhar represented India at the GPAI meeting held in Tokyo on November 21, 2022 for the symbolic takeover from France, which is the outgoing Council Chair.
- In the election to the Council Chair, India had received more than a two-third majority of first-preference votes.

About GPAI

- GPAI is a first-of-its-type **initiative for evolving better understanding of challenges and opportunities around AI** using the experience and diversity of participating countries, the alliance will look to bridge the gap between theory and practice by supporting advanced research and applied activities on AI-related priorities.
- It **works in collaboration with partners and international organisations, leading experts from industry, civil society, governments, and academia to collaborate to promote responsible evolution of AI** and guide the responsible development and use of AI, grounded in human rights, inclusion, diversity, innovation, and economic growth.

INDO-PACIFIC REGIONAL DIALOGUE 2022 (IPRD)

Relevance: Prelims & Mains Paper II; International Orgs.



Why in news?

- The IPRD is an apex level international annual conference of Indian Navy, and is principal manifestation of Navy's engagement at the strategic-level.
- The fourth edition of IPRD is scheduled to be held from 23 to 25 Nov 22. The theme of IPRD-2022 is 'Operationalising the Indo-Pacific Oceans Initiative (IPOI)'.

About IPRD

- The National Maritime Foundation (NMF) is Navy's knowledge partner and chief organizer of each edition of the event.
- The first two editions of IPRD were held in 2018 and 2019 respectively at New Delhi. IPRD 2020 was cancelled due to Covid-19 outbreak. The third edition of IPRD was held in 2021 in online mode.
- The IPRD seeks to foster exchange of ideas and promote deliberations on regionally relevant maritime issues.
- Being a Track 1.5 event that aims to encourage discussions on public policy, the IPRD endeavors for a balanced representation from government and non-government agencies and institutions.

About NMF

- Located in India's capital, **New Delhi**, NMF is amongst India's foremost **think-tanks**.
- It is unique because it is the **only think-tank in India** that concentrates **solely upon India's maritime domain**.
- However, the **focus of its research is holistic and comprehensive** and is NOT restricted to 'military maritime security' (hard security) alone.
- Instead, its research-faculty examines and analyses **the entire gamut of issues relevant to India's holistic maritime security**, seeking to provide India with freedom from manmade- and natural threats, as well as those that result from a combination of these — any or all of which could arise in-, from-, or through- the sea.
- Thus, in addition to military maritime security, its research also addresses a wide range of important economic-, socio-economic-, socio-cultural-, scientific-, legal-, and historical issues, all of which are critical to 'maritime India'.
- As a '**Track 1.5**' institution, it is a healthy mix of highly-qualified and experienced practitioners (by way of serving officers of the Indian Armed Forces) and civilian scholars.

India's unusual abstention in CITES vote on reopening ivory trade



Relevance: Prelims & GS Mains II; International Organisations

Why in news?

- The **elephant** is one of **India's most powerful cultural and religious symbols**.
- A pioneer in **banning even the domestic trade in ivory in 1986**, India has always been at the **forefront of global elephant conservation initiatives**.
- That is why **India's decision not to vote against a proposal to re-open the international trade in ivory** at the conference of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (**CITES**) surprised many.

Fate of Proposal

- On November 19, when the proposal on the ivory trade was put to vote at **CoP19**, **India chose to abstain** and not vote against it.
- That **proposal**, to allow a regular form of controlled trade in ivory from Namibia, Botswana, South Africa, and Zimbabwe, was **defeated** 83-15.

CITES agreement

- CITES is an international agreement between governments (184 at present) to ensure that international trade in wild animals and plants does not threaten the survival of the species.
- The convention entered into force in 1975 and India became the party to the convention in 1976.
- International Trade of species covered under CITES must be authorised through a permit system.
- CITES Appendix I lists species threatened with extinction — import or export permits for these are issued rarely and only if the purpose is not primarily commercial.
- CITES Appendix II includes species not necessarily threatened with extinction but in which trade must be strictly regulated.
- Every two years, the Conference of the Parties (CoP), the supreme decision-making body of CITES, evaluate proposals from parties to decide if a species should be in Appendix I or II.

Status of Trade in ivory

- The international ivory trade was globally banned in 1989 when all African elephant populations were put in CITES Appendix I.
- However, the populations of Namibia, Botswana, Zimbabwe and South Africa were subsequently transferred to Appendix II to allow sale of ivory stockpiled from natural elephant deaths and seizures from poachers.
- Subsequently, Namibia's proposal for allowing a regular form of controlled trade in ivory by delisting the elephant populations of the four countries from Appendix II was rejected at CoP17 (2016) and CoP18 (2019).
- At the ongoing CoP19 (2022), the proposal was moved by Zimbabwe but met the same fate.

Arguments – For and against

- The four southern African countries argue that their **elephant populations have bounced back** and that their **stockpiled ivory, if sold internationally, can generate much-needed revenue for elephant conservation and incentivising communities.**
- **Opponents** of the ivory trade counter that any form of supply stokes demand and that sharp **spikes in elephant poaching** would be recorded across the globe if regular form of trade in ivory is allowed.

India and ivory trade

- In **1986**, India amended The Wild Life (Protection) Act, 1972 to **ban even domestic sales of ivory.**
- After the ivory trade was globally banned, India again amended the law to **ban the import of African ivory in 1991.**

International Year of Millets (IYOM) – 2023

Relevance: Prelims & Mains Paper II; International Issues



Why in news?

- On the initiative of Prime Minister Shri Narendra Modi, the United Nations has declared the year 2023 as the International Year of Millet (IYOM).

Importance of Declaration

- Millet is a storehouse of micronutrients, vitamins and minerals.
- International Year of Millets will raise awareness about the contribution of millets for Food Security and Nutrition, motivate stakeholders for continuous production and quality improvement of millets and attract attention to increase investment in research and development services.

Global Production

- Asia and Africa are the major production and consumption centres of millet crops.
- India, Niger, Sudan and Nigeria are the major producer of millet.

Production of Millets in India

- India is the major production country of Millet in which **Kangni, Kutki, Kodon, Gangora or Barnyard, china and Brown top** are included with **Jowar, Bajra, Ragi and small millets**.
- **Most of the states** in India grow one or more millet crop species.
- During the last 5 years, our country produced more than 13.71 to 18 million tonnes of millets with the highest production in 2020-21.
- According to the estimates for the year 2021-22, about **16 million tonnes millets** have been produced in India, which is **about 5 percent of the national food grain basket**.
- **Bajra** has the highest market share of **9.62 million tonnes**, followed by **jowar** with a production of **4.23 million tonnes**. **Ragi** is another important millet, which contributes to the production of **1.70 million tonnes** and the production of **other** millets is **0.37 million tonnes**.

Russia's nuclear icebreakers and militarisation of the Arctic

Relevance: Prelims & Mains Paper II; International Issues



Why in news?

- On November 22, Russian President Vladimir Putin virtually presided over the launch and flag raising ceremony of **two nuclear-powered icebreakers** at St. Petersburg and said such icebreakers were of “strategic importance”.
- As **climate change opens up the Arctic giving access to new routes and resources**, there is a race by adjoining countries to build up their militaries and Russia has a clear lead over them.

Importance of Russian Icebreakers

- Speaking at the launch ceremony, Mr. Putin said both icebreakers were laid down as part of their large-scale, systematic work to re-equip and replenish the domestic icebreaker fleet, to strengthen Russia's status as a “**great Arctic power.**”
- Mr. Putin talked of the importance of the **Northern Sea Route**, which **cuts down time to reach Asia by up to two weeks compared to the current route via the Suez canal.**

Countries racing towards the Arctic

- There has been a **race among Arctic states and near-Arctic states** to augment their capabilities in a bid to be ready to capitalise on the melting Arctic.
- Unlike Antarctica, the Arctic is not a global common accentuating the problem.
- For instance, the **North Atlantic Treaty Organisation (NATO)** has been conducting **regular exercises in the region** while partner countries are investing in upgrading military capabilities.
- At the same time, **China, which calls itself to be a near-Arctic state**, has also announced ambitious plans for a **'polar silk route'** to connect to Europe as well building massive icebreakers.

Status of India

- Since 2007, **India has an Arctic research programme (called IndARC)** with as many as 13 expeditions undertaken till date.
- In March **2022**, India unveiled its **first Arctic policy** titled: **'India and the Arctic: building a partnership for sustainable development'**.
- India is also **one of the 13 Observers in the Arctic Council**, the leading **intergovernmental forum** promoting cooperation in the Arctic.

ECONOMICS

Federal Reserve interest rate

Relevance: Prelims & GS Mains III; Economics

Why in news?

- Recently, the **US Federal Reserve announced its fourth consecutive 75 basis point interest rate hike**, which brought the **benchmark federal funds rate to the range of 3.75% to 4%**.
- The Fed also delivered a sharp tone in **favour of over-tightening** rather than under-tightening in a bid **to contain inflation**, triggering a fall of 1.55% in the benchmark Dow Jones Industrial index.

Impact on India

- The Fed interest rate hike has following **implications on India**:
 1. **Depreciation of Indian rupee**
 2. **Withdrawal of Portfolio investment**
 3. **Imported inflation**
 4. **Fall in Stock exchange**

India's First Sovereign Green Bonds Framework



Relevance: Prelims & GS Mains III; Economics

- Green bonds are financial instruments that generate proceeds for investment in environmentally sustainable and climate-suitable projects.
- By virtue of their indication towards environmental sustainability, green bonds command a relatively lower cost of capital vis-à-vis regular bonds and necessitates credibility and commitments associated with the process of raising bonds.
- In the above context, India's first Sovereign Green Bonds framework was formulated under the supervision of Union finance minister.

Interest-free banking given the green-light in Pakistan

Relevance: Prelims & GS Mains III; Economics

Why in news?

- Pakistan's Finance Minister recently announced that the government would introduce interest-free banking in the country, marking a significant departure from its earlier opposition to the policy.

What is interest-free banking?

- Islamic banking refers to banking activity that conforms to laws and values laid down by Islamic law or Sharia. The basis of Islamic finance is the rejection of interest while lending money, along with the requirement that there must not be any engagement with immoral businesses.
- As per Islamic banking, money can only be parked in a bank without interest and cannot be used for speculative trading, gambling, or trading in prohibited commodities such as alcohol or pork.
- Riba is the Islamic term for interest charges on loans, and according to the current interpretation, covers all interest — not just excessive interest. Under Islamic law, a Muslim is prohibited from paying and accepting interest on a predetermined rate.

Sharia Compliant banks

- While banking is premised on charging interest while lending, and paying interest on deposits, there are a number of financial institutions even in the West, that also structure their accounts in Sharia compliant ways.
- In 2015, Germany opened its first Sharia compliant bank in Frankfurt.

Options available

- Various instruments are available for those who want to take credit from a Sharia compliant bank.
 1. In an Ijarah contract, a bank purchases the asset on behalf of the client and allows its usage for a fixed rental rate. After a mutually agreed time, the ownership of the asset is transferred to the client.
 2. Another instrument is Murabaha, which means a sale on mutually agreed profits. In this financing technique, an asset is purchased by the bank at a market price and sold to the customer at a mutually-decided marked-up cost. The client is allowed to repay in instalments.
 3. Musharaka refers to a joint investment by the bank and the client. Under the agreement, an Islamic bank provides funds, which are mixed with the funds of the business enterprise and others.

The bank and the client both contribute to the funding of an investment of purchase, and agree to share the profit or loss in agreed-upon proportions.

Federal Shariat Court's (FSC) ruling

- Established in 1980 during the government of General Muhammad Zia-ul-Haq, the FSC has the authority to determine whether Pakistan's laws comply with the Sharia.
- In April this year, a three-judge bench of the FSC said that Riba in all its forms was prohibited by Islam, and asked the government to replace the conventional banking system by an interest-free one by December 31, 2027.
- With the FSC decision, Pakistan became the first Muslim country to officially declare modern bank interest as Riba.

What's happened to crypto exchange FTX?

Relevance: Prelims & GS Mains III; Economics

Why in news?

- FTX needed a **bailout**, which its rival **Binance** seemed on the cusp of delivering.
- Then **Binance** **reversed itself**, saying it was pulling out of a deal to acquire the company.

What are FTX and Binance?

- FTX and Binance are **cryptocurrency exchanges**, meaning they enable customers to trade digital currencies for other digital currencies or traditional money, and vice versa. The two exchanges **process the majority of all crypto trades** in the world.
- **FTX**, one of the world's largest exchanges, is **run by Sam Bankman-Fried and is headquartered in the Bahamas**.
- **Binance, the largest exchange**, is run by billionaire **Changpeng Zhao**. The company has **no official headquarters**. Binance was also **early investor of FTX**.

Why did FTX run into trouble?

- FTX has a native cryptocurrency token called FTT, which traders use for operations like paying transaction fees. Last year, Zhao sold his stake in FTX back to Bankman-Fried, who paid for it partially with FTT tokens.
- On November 2, the crypto publication CoinDesk reported on a leaked document that appeared to show that Alameda Research, a hedge fund run by Bankman-Fried, held an unusually large amount of FTT tokens. FTX and Alameda are meant to be separate businesses, but the report claimed that they had close financial ties.
- Binance announced on November 6 that it would sell its FTT tokens “due to recent revelations”. In response, FTT’s price plummeted and traders rushed to pull out of FTX, fearful that it would be yet another fallen crypto company.
- FTX scrambled to process requests for withdrawals, which amounted to an estimated \$6 billion over three days. It seemed to enter a liquidity crunch, meaning it lacked the money to fulfill requests.

Impact on Cryptocurrency

- The cryptocurrency industry has long struggled to convince regulators, investors and ordinary customers that it is trustworthy.
- The fall of FTX, which seemed more stable than other companies, and the pullout by Binance have jolted the market.
- FTT’s price has fallen about 80% in few days. The prices of bitcoin and ether, some of the most valuable tokens, have both fluctuated widely in recent days.

Vostro accounts, and why they are in news?

Relevance: Prelims & GS Mains III; Economics

Why in news?

- On November 15, the government announced that **nine special Vostro accounts have been opened with two Indian banks** after permission from the RBI to facilitate trade in rupee in the wake of sanctions on Russia by the US and European countries.

Vostro account

- A Vostro account is an account that a **domestic bank holds for a foreign bank in the domestic bank's currency** — which, in the case of India, is the rupee.
- The RBI allowed nine such accounts, including IndusInd Bank and Uco Bank.
- In the case of trade with Russia, **payments in rupee for the export and import of goods will go to these Vostro accounts.**
- The owners and beneficiaries of this money will be the exporters and importers in both the countries. The **banks will keep the record of money transferred.**

Nostro account

- If an Indian bank like the SBI wants to open an account in the United States, it will get in touch with a bank in the US, which will open a Nostro account and accept payments for SBI in dollars.
- The account opened by the Indian bank in the US will be a Nostro account for the Indian bank, while for the US bank, the account will be considered a Vostro account.
- Literally, Nostro means 'ours' and Vostro means 'yours' in Latin. Therefore, the accounts opened by IndusInd and UCO are Vostro, and the ones opened by Russia's Sberbank and VTB Bank are Nostro accounts.

Creation of the Vostro accounts

- On July 11, the RBI put in place a mechanism to settle international trade in rupees "in order to promote growth of global trade with emphasis on exports from India and to support the increasing interest of the global trading community in the rupee".
- The central bank's move has come in the wake of increasing pressure on the Indian currency in the wake of Russia's invasion of Ukraine and sanctions by the US and the EU.
- According to the central bank, AD (authorised dealer) banks in India have been permitted to open rupee Vostro accounts. Accordingly, for settlement of trade transactions with any country, an AD bank in India may open special rupee Vostro accounts of correspondent banks of the partner trading country.

Allied shoring and Friend shoring

Relevance: Prelims & GS Mains III; Economics

Terms

- **Onshoring** - Undertaking **business operations at home**
- **Reshoring** - Undertaking business **operations at home**, which were **earlier outsourced abroad**
- **Nearshoring** – Shifting business operations to **nearby countries**
- **Allied shoring** – Shifting business operations to countries which are **allies**
- **Friend shoring** - Shifting business operations to countries which share **friendly relations**

- **Why Allied shoring and Friend shoring is being talked about?**
- The term, a cousin of “reshoring” and “onshoring” and a sibling to “nearshoring,” is shorthand for the practice of relocating supply chains to countries where the **risk of disruption from political chaos is low.**

Adani group wins Dharavi redevelopment bid

Relevance: Prelims & Mains Paper III; Economics



Why in news?

- The Adani group has won the bid for the long-delayed Dharavi redevelopment project, which aims to transform a huge slum cluster Mumbai. In 1999, the BJP-Sena government first proposed to redevelop Dharavi. Thus, The Dharavi redevelopment project has been stuck for almost two decades.
- The Adani group quoted Rs 5,069 crore for this project, followed by Rs 2,025 crore quoted by the DLF group. Only Adani and DLF qualified in the final bidding.

Present Status

- Dharavi is adjoining to India's richest business district, the Bandra-Kurla Complex, where commercial office premiums are among the highest in the country.
- The slum sprawl, spread over 2.8 sqkm, is home to an informal leather and pottery industry which employs over a lakh people.
- Its redevelopment will involve a massive investment of money upfront, amid tricky complications of land acquisition and rehabilitation.

Vision

- The state government had envisaged this sprawl to be transformed into a **cluster of high-rises with improved urban infrastructure**. It entailed **resettling 68,000 people, including slum dwellers and those with commercial establishments**.
- The state was to provide **300-sqft houses for free to residents with proof that their slum structure was in existence before January 1, 2000, and for a price to those who settled in Dharavi between 2000 and 2011**.

Digital rupee pilot project launched on December 1

Relevance: Prelims & Mains Paper III; Economics



Why in news?

- Reserve Bank of India (RBI) has announced the **launch of India's much-awaited Central Bank Digital Currency (CBDC)**, a sort of official cryptocurrency, **for retail users from December 1.**

Who can use the retail CBDC?

- The **pilot will initially cover the four cities** of Mumbai, New Delhi, Bengaluru, and Bhubaneswar, where customers and merchants will be able to use the digital rupee (e₹-R), or e-rupee.
- **Four banks** will be involved in the controlled launch of the digital currency in these four cities: State Bank of India, ICICI Bank, Yes Bank, and IDFC First Bank.
- The **scope of the pilot may be expanded gradually** to include more banks, users and locations as needed.

Nature of retail digital rupee

- The RBI had said earlier: “CBDC is the **legal tender** issued by a central bank in a **digital form**. It is the same as a **fiat currency** and is exchangeable one-to-one with the fiat currency. Only its form is different.”
- Fiat money is a **government-issued currency that is not backed by a physical commodity, such as gold or silver, but rather by the government that issued it.**

Working of digital rupee

- The e₹-R would be in the form of a **digital token that represents legal tender**. It will be issued in the **same denominations as paper currency and coins**, and will be distributed through intermediaries, i.e., banks.
- Users will be able to **transact with e₹-R through a digital wallet offered by the participating banks and stored on mobile phones and devices**, according to the RBI.
- Transactions can be **both person to person (P2P) and person to merchant (P2M)**. Payments to merchants can be made using **QR codes** displayed at merchant locations.

Other kind of Digital rupee

- Based on the usage and the functions performed by the digital rupee and considering the different levels of accessibility, RBI has demarcated the digital rupee into **two broad categories: general purpose (retail) and wholesale.**
- On **November 1**, the RBI launched the **digital rupee for the wholesale segment to settle secondary market transactions in government securities.**
- Wholesale CBDC is designed for **restricted access to select financial institutions.**
- It has the **potential to transform the settlement systems for financial transactions undertaken by banks in the government securities (G-Sec) segment, inter-bank market and capital market.**

Advantages of the e-rupee

- The RBI had earlier said the key motivations for exploring the issuance of CBDC in India among others include **reduction in operational costs involved in physical cash management, fostering financial inclusion, bringing resilience, efficiency and innovation in the payments system.**
- **It will boost innovation in cross-border payments space and provide the public with uses that any private virtual currencies can provide, without the associated risks.**

ENVIRONMENT
&
BIODIVERSITY

Waterlogging of Chennai

Relevance: Prelims & Mains Paper III; Environment

Why in news?

- Chennai has been experiencing heavy rainfall since October 31, resulting in the deaths of two people, **waterlogging** in several parts of the city, and disruption of vehicular movement.

Reasons

1. **Rainfall** - Chennai is largely fed by the northeast monsoon, from October to December, with easterly winds starting from mid-October.
2. **Lack of open spaces where water can be diverted:** Rampant construction have covered the wetlands and natural depressions of the cities. Lakes have either been lost or covered with dumps, reducing the capacity to hold excess rainwater.
3. The **haphazard construction**, which restricts the flow of natural drains: Natural drains have also been encroached upon or choked with sewage and garbage.
4. **Concrete surfaces:** Concrete surfaces in cities obstruct percolation of water under the ground. Consequently, water remains on the surface.

Reasons

5. **Extension of urban agglomeration:**

Extension of urban agglomeration to adjoining areas reduces open fields in the nearby areas.

6. **Poor waste management:** Poor waste management causes blocking of drains, canals and lakes, causing obstruction in movement of water flow and shortage of storage spaces.

7. **Heavy spells of rainfall:** There is increase in frequency of heavy spells in rain.

8. **Urban heat island effect:** The urban heat island effect leads to some parts of the city receiving far more rain than the relatively green parts, causing concentration of water in some regions.

Ganga Utsav

Relevance: Prelims & Mains Paper III; Environment

Why in news?

- The **National Mission for Clean Ganga (NMCG)**, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti is organizing Ganga Utsav- The River Festival 2022 on 4th November, 2022 at Major Dhyan Chand Stadium in New Delhi.
- One of the main objectives of Ganga Utsav 2022 is to **celebrate our rivers and spread awareness** on the significance of river rejuvenation across river basins in India.
- Dedicating the **grand event to the 75 years of Indian Independence (Azadi ka Amrit Mahotsav)**, the aim is to hold similar events at more than 75 locations in states to celebrate the rivers of India.

Background

- Initially, the festival started off as '**Ek Shaam Ganga Ke Naam**', a small event involving limited stakeholders in **2017**.
- The event subsequently developed into '**Bal Ganga Mela**' in **2018**.
- In **2019**, the event progressed as a **carnival**.
- The event steadily took shape as the **River Festival** but was celebrated in virtual format in **2020** due to Covid-19.
- **Ganga Utsav 2021**- the River Festival was **celebrated as a festival part of the 'Azadi ka Amrit Mahotsav'**.

Partial stubble burning

Relevance: Prelims & GS Mains III; Environment

Why in news?

- Many farmers this year said that they are **not burning the paddy stubble completely** and are instead resorting to **partial burning or burning only the loose straw**.

Loose straw and standing stubble

- **Standing stubble** - The short and long-duration paddy varieties have a height of 4 feet and over 5, respectively. The **combined harvesters** that farmers use to harvest paddy, cut off the upper portion of the paddy and leaves behind a standing stubble of around 15 to 18 inches, which is called standing stubble.
- **Loose Straw** - The combined harvesters also throw the chopped **2.5 feet loose stubble on the field after taking the grain portion** from the shaved part of the stubble. This loose straw gets accumulated in several small dumps in the field which is called the loose straw.

Partial Stubble burning

- After harvesting, farmers opting for partial burning let the loose straw dry for a couple of days and then they set these dumps on fire to prepare the field for the next crop.
- In such cases, the standing stubble, which is mostly green, does not get burnt fully but it gets scorched close to those places in the field where loose straw is burnt.

Seeding machines

- The state has distributed 1.05 lakh stubble management machines and a large number of individual farmers and groups of farmers have purchased these machines on subsidy.
- Farmers who do not have these machines but want to manage the stubble, get these on rent from farmers groups and cooperative societies.
- However, even after having three main machines such as Happy Seeder, Smart Seeder and Super seeder, many farmers are resorting to partial burning.
- The three machines ensure that there is no need for partial burning even after harvesting as stubble clearing is not required to sow wheat.

Farmers opting for Partial Stubble burning

- Experts said that farmers see stubble as the enemy of soil and the next crop but it is not.
- Farmers want to see their field clean at the time of sowing of new crops and with these three machines except Super Seeder, stubble remains in the field even after sowing.
- To avoid this sight post wheat sowing, farmers resort to partial burning without paying attention towards the soil and air health.

Impact on air Pollution

- Experts said that if farmers are burning just 10-12 spots where the loose straw gets accumulated in the field and fire is not inching toward the remaining field then it will save the remaining part of the field from burning. "But it is rare.
- And in the case of air pollution, it will be around 40-50% less as they only burn around 50% to 60% of the total stubble in such cases," experts said.

Greenwashing

Relevance: Prelims & GS Mains III; Environment

Why in news?

- UN Secretary General Antonio Guterres recently warned companies and other non-state entities pursuing net-zero goals for themselves against indulging in 'greenwashing', and said there would be zero tolerance for 'greenwashing'.

Meaning of Greenwashing

- It refers to the growing tendency of companies, organisations and even countries to mark all kinds of activities as climate-friendly, often with dubious, unverifiable or misleading claims.
- In their bid to showcase their concern for the environment and nature, they often resort to short-cuts, obtain untrustworthy certifications, or indulge in plain intentional misinformation.

Examples of Greenwashing

- **Developed countries**, for example, are often accused of **greenwashing their investments in developing countries**, by highlighting climate co-benefits of the financial flows, often with little justification.
- **Companies** are accused of greenwashing their image by **sponsoring a green award or conference, while carrying on with their environment-damaging business activities elsewhere.**
- **Double counting** — when **two or more entities claim the climate benefits of the same action** — is also considered greenwashing. The generation, certification and trade of carbon credits in voluntary settings often leads to lot of greenwashing.

Why it is serious matter?

- The practice is prevalent enough to create **concerns over climate goals getting completely undermined.**
- It was serious enough for the **UN Secretary General to set up an expert group** solely to look into this and recommend corrective measures.
- Greenwashing **presents a false picture of the progress being made on the climate change front**, thereby pushing the world towards disaster, while **at the same time rewarding companies or entities for irresponsible behaviour.**

Why is it so easily possible?

- Greenwashing is relatively easy in the **absence of universal or rigorous regulations and standards**.
- The **processes, methodologies and institutions to measure, report, create standards, verify claims, and grant certifications are still being created**.
- In the meanwhile, **large number of organisations have sprung up** claiming to offer these services. Many of these **lack integrity and robustness**, but their services are availed by corporations, because it makes them look good.

Various negotiating blocs at COP27

Relevance: Prelims & Mains Paper III; Environment



- The **negotiating blocs** engaged in the UN climate conference (**COP27**), currently underway in **Sharm el-Sheikh, Egypt** are as follows:

1. **‘BASIC’ countries (which includes India)** : **Brazil, South Africa, India and China** make up this bloc of **populous, fast-developing countries with highly polluting economies**.

Each has asked rich countries for more climate financing, and demanded equity through the UNFCCC concept of **“common but differentiated responsibilities”**, which means that wealthy countries that have contributed the most emissions to the atmosphere historically have a greater responsibility to address the problem.

2. **G77 + China**: This **alliance of 77 developing countries and China** holds the line on the concept that different countries have differing responsibilities. At COP27, **Pakistan**, which **suffered devastating floods** this year, **will lead the group demanding a dedicated fund for compensation from rich nations**.

3. **Umbrella Group**: This alliance of **non-EU developed countries includes Australia, Japan, Russia, and the United States**.

4. **Africa Group**: Africa’s UN members will **push for additional climate financing, while arguing that expanding economies need fossil fuels to increase electricity capacity**. Many African countries, including the host Egypt, are keen to develop their natural gas reserves as a transition fuel and a way to capitalise on Europe’s demand for gas to replace Russian imports.

5. Climate Vulnerable Forum: Representing 58 countries most at risk from climate impacts, including Bangladesh and the Maldives, this group heads to COP27 with a core demand — a dedicated fund whereby rich polluting countries help the vulnerable bear the costs of “loss and damage”. It also wants all countries to strengthen their climate goals.

6. Alliance of Small Island States: The alliance, known by its acronym AOSIS, represents countries that are disproportionately vulnerable to climate effects, particularly sea level rise and coastal erosion.

7. Independent Alliance of Latin America and the Caribbean: The ALAC bloc is aligned with other developing countries in demanding greater climate ambition and more funding from richer nations.

8. Least Developed Country Group: This groups 46 nations vulnerable to climate change despite contributing little to it. Aside from demanding that loss and damage be addressed, the LDCs want rich nations to provide double the amount of adaptation funding and improved access to it.

9. Powering Past Coal Alliance: Spearheaded by Britain and Canada, 41 nations and dozens more local governments and companies have pledged faster transitions to clean energy. The group this year criticised plans to burn more coal in response to the energy crisis triggered by the Ukraine war.

10. High Ambition Coalition: Chaired by the Marshall Islands and with members including Costa Rica, the United States and the EU, this group pushes for more progressive emissions targets and climate policies.

Important terms related to climate negotiations

Relevance: Prelims & GS Mains III; Environment



- Representatives from the world's nations meet in **Sharm el-Sheikh, Egypt, on Nov. 6-18** to negotiate the rules of a new global climate pact. Some of the important terms used in these negotiations are as follows:

1. **GLASGOW PACT**- Reached at the **2021 U.N. climate summit in Glasgow**, Scotland, the Glasgow Pact marked the first time a U.N. climate agreement mentioned the **goal of reducing fossil fuel use**.

With time running out for steep emissions cuts, the pact also **urges nations to come up with more ambitious climate plans**.

2. **Paris Agreement** - **Successor to the Kyoto Protocol**, the international climate treaty that **expired in 2020. Agreed in December 2015**, the Paris Agreement aims to limit the rise in the average global surface temperature.

To do this, countries that signed the accord **set national pledges** to reduce humanity's effect on the climate that are meant to become more ambitious over time.

3. **GREENHOUSE GASES** - The **carbon dioxide (CO₂)** emitted by the burning of fossil fuels such as coal, diesel, gasoline or petrol, kerosene and natural gas is **the main "greenhouse gas"** responsible for warming the Earth's atmosphere.

But there are **others such as methane**, which is produced by cows and waste dumps, that are much more potent than CO₂ but much shorter-lived in the atmosphere.

4. 1.5 DEGREES - The **Paris accord** legally bound its signatories collectively to limit greenhouse gas emissions to keep the temperature rise “**well below**” **2.0 degrees Celsius** (3.6 Fahrenheit) this century. But the countries also promised to “**pursue efforts**” to keep the rise below **1.5C** (2.7F), which scientists say would help to avert some of the most catastrophic effects.

Soberingly, the world has already heated up by just **over 1C** since the start of the Industrial Revolution.

Even if all the **pledges made so far are delivered**, it is still on track for an average rise of **2.7C** this century, a United Nations report said.

5. COP27 - The Conference of the Parties (COP) is the supreme body of the United Nations Framework Convention on Climate Change (UNFCCC). COP27, the 27th annual meeting, is being held under an Egyptian presidency in the Red Sea resort town of **Sharm el-Sheikh**.

6. NATIONALLY DETERMINED CONTRIBUTIONS - NDCs are the **pledges that each country makes** to reduce its emissions and adapt to climate change from 2020 onward. Countries have to **update and expand their NDCs every five years**.

7. ‘JUST TRANSITION’ - The term used to describe a **shift to a low-carbon economy that keeps the social and economic disruption of moving away from fossil fuels to a minimum while maximising the benefits for workers, communities and consumers**.

8. CLIMATE FINANCE - Richer countries agreed in 2009 to contribute \$100 billion together each year by 2020 to help poorer countries adapt their economies and lessen the impact of rising seas, or more severe and frequent storms and droughts.

The target has yet to be met.

To put things in perspective, a U.S. Energy Department official estimated that the United States alone needs to invest \$1 trillion a year to meet its new climate targets.

9. CBDR - The principle of “common but differentiated responsibilities” (CBDR), was enshrined in the Kyoto accord adopted in 1997 at COP-3.

It says that developed countries, which produced more emissions in the past as they went through industrialisation, should take the lead in fighting climate change.

How are climate conference hosts decided?

Relevance: Prelims & GS Mains III; Environment

Conference of Parties

- The United Nations Climate Change Conference 2022 — **COP27** — opened recently in Sharm el-Sheikh.
- COP stands for the annual 'Conference of the Parties' to the **United Nations Framework Convention on Climate Change (UNFCCC)**.
- The meetings review the **progress made by countries in the fight against climate change and in the implementation of decisions taken in earlier COPs**.
- The COP **meets every year**, unless the parties decide otherwise. The **first COP meeting was held in Berlin, Germany in March 1995**. **COP27 marks 30 years since the adoption of the UNFCCC**.

COP 27

- The United Nations Climate **Sharm el-Sheikh, often called just Sharm**, is a resort town in Egypt, situated at the **southern tip of the Sinai peninsula** where the **Gulf of Aqaba joins the Red Sea**.
- It is a **major tourist centre** in Egypt, and a preferred venue for international conferences.



Selection of COP host

- The venue for the **COP meeting rotates among the five UN-identified regions**: Africa, Asia-Pacific, Eastern Europe, Latin America and Caribbean, and Western Europe and Others.
- The countries in the region propose a candidate. If **no country agrees to be the host, Bonn, where the UNFCCC secretariat is headquartered, steps in as host.**
- The **rotation cycle has not been followed** very strictly. The first and second COPs were held in western Europe (Berlin and Geneva), and so were the fifth and sixth (Bonn and the Hague). After the 2012 COP in Doha, the event has not yet returned to Asia.
- **India hosted the 2002 COP in New Delhi**, much before climate change became a big thing.

Reluctance of host

- Countries are sometimes not enthusiastic to host the event. This is mainly due to **two reasons**.
- One, the host city **incurs huge expenditure** on the event, not all of which is reimbursed. There are **thousands of participants and frequent disruptions by protesters** who come from all over the world — all of which stretch the city's resources.
- Two, the host country, which presides over the conference, is **expected to demonstrate leadership** in taking steps to combat climate change.

Nicobar project gets assent for diversion of 130 sq km of forest

Relevance: Prelims & GS Mains III; Environment

About the Project

- The Union Ministry of Environment, Forest and Climate Change (MoEFCC) has granted an **in-principle clearance** for the diversion of **130.75 sq km of forest in Great Nicobar Island** for the **mega ₹72,000-crore project** that includes a **transshipment port, an airport, a power plant and a greenfield township**.
- The project implementation agency is the Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO).
- A key condition for the clearance is the submission of a detailed scheme for **compensatory afforestation**, which is to be done on “non-notified forest land” in Haryana.

Destruction of ecological wealth

- The area is **nearly 15% of the thickly forested Great Nicobar Island** that is spread over 900 sq km.
- This is **one of the largest single such forest diversions** in recent times.
- It is **nearly a quarter of all the forest land diverted in the past three years** across the country (554 sq km as per information provided in the Lok Sabha in July).
- The Ministry’s own estimates suggest that **8.5 lakh trees** will have to be cut in Great Nicobar for this project.
- This is doubly significant because these are primary **evergreen tropical forests** with high biological diversity.

Centre has restricted use of a herbicide: Glyphosate

Relevance: Prelims & GS Mains III; Environment

About Glyphosate

- The Union Agriculture Ministry has **restricted the use of glyphosate**, a **widely used herbicide**.
- It is a herbicide used to **kill weeds** — **undesirable plants that compete with crops for nutrients, water and sunlight**. Farmers remove weeds **either manually or by spray of herbicides**.
- Glyphosate is a **broad-spectrum herbicide** that can **control a wide range of weeds**, whether **broadleaf or grassy**. It is also **non-selective**, killing most plants.
- When applied to their leaves, it **inhibits the production of a EPSPS enzyme**, produced only by plants and microorganisms, which **synthesizes amino acids that are necessary for their growth**.

Non-discriminatory nature

- The scope for glyphosate **use is limited** for the very reason that it is **non-selective**.
- Designed to kill all plants coming into contact with it, the chemical cannot ordinarily distinguish between crop and weed.
- Hence, it can be **used in tea or rubber plantations**, but **not in fields where the crops and weeds are at almost the same level**.

Use in India

- There are **nine glyphosate-based formulations containing different concentrations of the chemical** registered for use under the **Insecticides Act, 1968**.
- These are **approved largely for weed control in tea gardens and non-crop areas such as railway tracks or playgrounds**.
- Farmers also apply glyphosate on **irrigation channels and bunds** to clear these of weeds, making it easier for water to flow and to walk through them.

Union Ministry decision

- The Ministry of Agriculture and Farmers Welfare, recently issued a notification stating that **“the use of glyphosate involves health hazards and risk to human beings and animals”**.
- It has, however, **not banned and only “restricted” its use**. The **spraying of glyphosate and its derivatives shall henceforth only be permitted through “pest control operators”**.

Used with GM crops

- As earlier noted, the scope for glyphosate is already restricted in normal agricultural crops by virtue of it being a non-selective herbicide.
- Glyphosate application has increased only with the advent of genetic modification (GM) or transgenic technology.
- In this case, it has involved incorporating a 'cp4-epsps' gene, isolated from a soil bacterium *Agrobacterium tumefaciens*, into crop plants such as cotton, maize and soyabean.
- This alien gene codes for a protein that does not allow glyphosate to bind with the EPSPS enzyme. The said GM crop can, therefore, "tolerate" the spraying of the herbicide, which then kills only the weeds.

Commercial Cultivation

- As far as India goes, the **only GM crop officially under commercial cultivation today is Bt cotton.**
- This has **two alien genes ('cry1Ac' and 'cry2Ab')** from the soil bacterium *Bacillus thuringiensis*, that code for proteins toxic to the American bollworm, spotted bollworm and tobacco caterpillar insect pests.
- The Union Environment Ministry's Genetic Engineering Appraisal Committee (GEAC), recently, recommended the commercial release of Delhi University's GM hybrid mustard.
- This crop can also tolerate the spraying of glufosinate ammonium, a non-selective herbicide similar to glyphosate.
- GEAC is further set to take a call on approving glyphosate-tolerant Bt cotton.

Mangrove Alliance for Climate

Relevance: Prelims & GS Mains III; Environment

Why in news?

- At the 27th Session of Conference of Parties (COP27), this year's UN climate summit, the Mangrove Alliance for Climate (MAC) was launched with India as a partner.
- The move, in line with India's goal to increase its carbon sink, will see New Delhi collaborating with other countries to preserve and restore the mangrove forests in the region.

About

- An initiative led by the United Arab Emirates (UAE) and Indonesia, the Mangrove Alliance for Climate (MAC) includes India, Sri Lanka, Australia, Japan, and Spain.
- It seeks to educate and spread awareness worldwide on the role of mangroves in curbing global warming and its potential as a solution for climate change.
- The members will also share expertise and support each other in researching, managing and protecting coastal areas.
- Being an intergovernmental alliance, the alliance will work on a voluntary basis which means that there are no real checks and balances to hold members accountable.
- Instead, the parties will decide their own commitments and deadlines regarding planting and restoring mangroves.

Significance of mangroves

1. Mangrove forests consist of trees and shrub, that live in **intertidal water** in coastal areas, **host diverse marine life**.
2. They also **support a rich food web**, with molluscs and algae-filled substrate acting as a breeding ground for small fish, mud crabs and shrimps, thus providing a **livelihood** to local artisanal fishers.
3. Equally importantly, they act as effective **carbon stores**, holding up to four times the amount of carbon as other forested ecosystems.

Mangrove forests **capture vast amounts of carbon dioxide** from the atmosphere and their preservation can both aid in removal of carbon from the atmosphere and **prevent the release of the same upon their destruction**.

Current state of the mangroves

- South Asia houses some of the most extensive areas of mangroves globally, while **Indonesia hosts one-fifth** of the overall amount.
- **India holds around 3 percent of South Asia's mangrove population**. Besides the **Sundarbans in West Bengal**, the **Andamans** region, the **Kachchh and Jamnagar areas in Gujarat** too have substantial mangrove cover.
- However, **infrastructure projects** — industrial expansion and building of roads and railways, **and natural processes** — **shifting coastlines, coastal erosion and storms**, have resulted in a significant decrease in mangrove habitats.
- **Between 2010 and 2020, around 600 sq km of mangroves were lost** of which more than 62% was due to direct human impacts, the Global Mangrove Alliance said in its 2022 report.

Road to net-zero status

Relevance: Prelims & GS Mains III; Environment

Why in news?

- A year after announcing its intention to achieve a net-zero emission status by 2070, India told the world at COP-27 how it was going to reach there.

Targets under Paris Agreement

- Under the 2015 Paris Agreement, countries have to prepare and submit two kinds of climate action plans — one for the short term, and another for long-term.
- The short-term climate action plans, also called Nationally Determined Contributions (NDCs), have to be submitted every five years, with specific actions being taken over 5- or 10-year periods. The NDCs of all countries currently contain the actions they are taking till 2030. Every subsequent NDC — next one is due in 2025 — must be a progression from the existing NDC.
- In its NDC, India has promised three main targets for 2030 —
 1. a 45 per cent reduction in emission intensity (emission per unit of GDP) from 2005 levels,
 2. 50 per cent share of renewables in electricity generation, and
 3. Creation of 2.5 to 3 billion tonnes of additional carbon sink through forests.

Long term Targets

- Apart from NDCs, the Paris Agreement also asks countries to submit their **long-term strategies to reduce emissions, also called LT-LEDS (Long Term-Low Emission Development Strategy)**.
- There is **no particular time frame** for which these long-term strategies have to be prepared, but it is **generally understood that countries will draw out plans till the middle of the century**.
- Countries have announced target years for achieving net-zero status. In the case of **most developed countries**, this is **2050**. **China** has set **2060** as its target year, while **India** said it would reach there in **2070**.

India's road to 'net zero'

At COP-27, India announced its long-term strategy to transition to a 'low emissions' pathway to become carbon neutral by 2070

KEY MILESTONES

- The National Hydrogen Mission, launched in 2021, aims to make India a green hydrogen hub
- At least a three-fold increase in nuclear capacity by 2032
- Achieving an ethanol blending target of 20% by 2025
- Maximising the use of electric vehicles, increase public transport
- Increased climate finance to be provided by developed nations
- The long-term strategy aims at keeping global temperatures well below 2 degrees Celsius and, ambitiously, 1.5 degrees Celsius by the century-end



Environment Minister

Bhupender Yadav at the COP-27 summit in Egypt on Monday. REUTERS

India's Strategy

- To reach the net-zero destination, India is **planning largescale interventions in five sectors** —
 1. **Energy and electricity,**
 2. **Transport,**
 3. **Urban design,**
 4. **Industries, and**
 5. **Forestry.**
- The plan also involves **focused research and development efforts** aimed at developing climate-specific technologies, and **mobilisation of financial resources**, both public and private, domestic and international.

Criticism

- **Absence of Mid-term goals:** There are no mid-term goals or indicative pathways. Most of the 60-odd countries that have submitted their long-term strategies have not offered mid-term targets or pathways, but some, including the UK and the US, have provided a few **sectoral projections with expected milestones** they hope to reach.
- **Agriculture missing:** One of the sectors India has not mentioned in its long-term strategy is agriculture, which is **mainly responsible for methane emissions**. The good thing is that unlike carbon dioxide, methane is largely a sectoral gas, so its reduction **does not have economy-wide repercussion the way carbon dioxide has**.
- However, methane emissions is a **sensitive issue for India**, mainly because major contributors happen to be agriculture — **paddy crops in standing water**, for example — and **belching of cattle**, which India has **the world's largest population** of.

Carbon border taxes

Relevance: Prelims & GS Mains III; Environment

Carbon border taxes- Meaning

- The carbon border tax involves **imposing an import duty on a product manufactured in a country with more lax climate rules than the one buying it.**
- The **Carbon Border Adjustment Mechanism** is a plan from the European Union (EU) to tax **carbon-intensive products**, such as iron and steel, cement, fertiliser, aluminium and electricity generation, **from 2026.**
- While its **advocates**, like the EU, claim the tax will **benefit the environment and provide a level playing field to companies**, those **opposing it call the tax unfair and protectionist.** They say it puts the **burden of climate compliance on developing countries**, when historically, they have done much less to pollute the environment and yet are often more vulnerable to effects of climate change.

Carbon leakage

- Some developed nations, in efforts to cut emissions, impose **high costs on carbon-intensive businesses** in their own countries. **Businesses** can potentially **sidestep this simply by moving production to a country with less stringent rules**, a practice called **carbon leakage.**

EU's CBAM

- The EU came up with the Carbon Border Adjustment Mechanism (CBAM) in 2021.
- According to European Commission, the CBAM system will work as follows: EU importers will buy carbon certificates corresponding to the carbon price that would have been paid, had the goods been produced under the EU's carbon pricing rules. Conversely, once a non-EU producer can show that they have already paid a price for the carbon used in the production of the imported goods in a third country, the corresponding cost can be fully deducted for the EU importer."

Opposition and response of India

- A group of countries including India has opposed the carbon border taxes policy at the COP27 in Sharm El Sheikh, saying it could "result in market distortion".
- India has maintained that developed countries cannot push the burden of doing more to tackle climate change while they evade responsibilities themselves.
- India has also stressed that 'just transition' to cleaner sources of energy did not mean that all countries should strive for the same level of decarbonisation.
- For India, just transition means the transition to a low-carbon development strategy over a time scale that ensures food and energy security, growth, and employment, leaving no one behind in the process.

COP27: How will UN climate deal on loss and damage work?

Relevance: Prelims & GS Mains III; Environment

History

- In the **early 1990s**, the **Alliance of Small Island States**, a group of low-lying coastal and small island countries, **began calling for the establishment of a loss and damage fund** as the United Nations was creating a framework to deal with climate change on an international level.
- Since then, the idea has always been a **part of annual U.N. climate summits**.
- However, it was **often talked about on the margins of negotiations**. For the **first time**, at this year's **COP27**, it was **included in the agenda and became the centerpiece of discussions**.

Who will fund it?

- The fund will initially draw on **contributions from developed countries and other private and public sources**, such as international financial institutions, with an option for other major economies to join down the line.
- **More details of who pays will be decided by a committee that plans to get the fund going within a year**.

Who will get the money?

- The deal says the fund will **assist “developing countries** that are particularly vulnerable to the adverse effects of climate change,” though there will be **room for middle-income countries that are severely affected** by climate disasters to also get paid.
- **Pakistan, which was devastated by flooding that put a third of the country underwater, or Cuba, recently battered by Hurricane Ian, could be eligible.**
- The loss and damage fund will also fit in with **“other institutions, agencies that are out there doing humanitarian work, helping people rebuild, dealing with migration and refugee crises, dealing with food security, water security”**.
- Those **details will also be decided out** by the committee in the coming year.

Need for Rebuilding trust

- Beyond just financial help, setting up the fund is seen as a huge step forward, but how it’s ultimately viewed will depend in part on how fast it can be set up.
- There is a **credibility gap** because of past broken promises. In **2009, rich nations agreed to provide \$100 billion a year to help developing countries transition to green energy systems and adapt to climate change.** However, to date, that initiative has **never been fully funded.**

Repercussions

- One of the main reasons that rich nations long opposed such a loss and damage fund was the fear that it would open them up to long-term liability.
- Despite passage, that concern is very much still at play, as evidenced by how negotiators made sure the language of the fund didn't say "liability" and that contributions were voluntary.
- Despite those caveats, the establishment of such a fund could have repercussions, both legal and symbolic, in climate circles and beyond. For example, several Pacific Island nations have been pushing for the International Court of Justice to consider climate change.
- They argue that international laws must be strengthened to protect their rights in the case that their lands are engulfed by rising seas. The establishment of a loss and damage fund could bolster those arguments.

India ranks 8th as per Climate Change Performance Index (CCPI, 2023)



Relevance: Prelims & GS Mains III; Environment

Ranking of India

- India has been ranked **amongst top 5 countries** in the world, and the best among the G20 countries, based on its Climate Change performance.
- The **latest report of CCPI**, released at COP 27 in **November 2022**, shows **Denmark, Sweden, Chile and Morocco** as the **only four small countries** that were **ranked above India** as 4th, 5th, 6th and 7th respectively.
- **India jumps 2 spots higher**, and is now ranked 8th as per **Climate Change Performance Index (CCPI, 2023)**.
- The **first, second and third ranks** were not awarded to any country. In effect therefore, **India's rank is the best amongst all large economies**.
- The ranking given by CCPI places India as the **only G-20 country in the top 10 rank**.

About the index

- The index is **published by German Watch, New Climate Institute and Climate Action Network International** based in Germany.
- **Published annually since 2005**, the Climate Change Performance Index (CCPI) is an **independent monitoring tool** for tracking the climate protection performance of 59 countries and the EU.

Measurement under Index

- The CCPI aims to enhance transparency in international climate politics and enables comparison of climate protection efforts and progress made by individual countries.
- The climate protection performance of these 59 countries and EU, which together account for 92% of global greenhouse gas (GHG) emissions, is assessed in four categories:
 1. GHG Emissions (40% of overall score),
 2. Renewable Energy (20% of overall score),
 3. Energy Use (20% of overall score) and
 4. Climate Policy (20% of overall score).

How India scored high rank?

- India earned a high rating in the GHG Emissions and Energy Use categories, while a medium for Climate Policy and Renewable Energy.
- As per the CCPI report, India is on track to meet its 2030 emissions targets (compatible with a well-below-2°C scenario).

COP27 Outcomes



Relevance: Prelims & GS Mains III; Environment

Overall Performance

- The Sharm el-Sheikh climate meeting will probably always be remembered for its decision to set up **a loss and damage fund**.
- This decision has earned it a place among the major milestones in the global response to climate change.
- But on **most other parameters**, the Sharm el-Sheikh meeting — the 27th session of the Conference of Parties to the UN Framework Convention on Climate Change, or COP27 — proved to be an **underachiever**.
- The COP27 agreement, for the **first time**, **quantified the financial needs for climate action**. It said about **USD 4 trillion had to be invested in the renewable energy sector every year till 2030** if the 2050 net zero target was to be achieved. Additionally, **at least USD 4-6 trillion was required every year for global transformation to a low-carbon economy**.

Mitigation

- Going into the conference, it was expected that COP27 would respond to the **growing urgency for greater emission cuts**.
- Most scientific estimates now suggest that the **1.5 degree Celsius target for temperature rise is likely to be breached within a decade**.
- With current efforts to reduce emissions, the world is headed to a temperature **rise of about 3 degree Celsius from pre-industrial times by the end of this century**.

Adaptation

Meaning - Most of the conversation on climate actions is focused on mitigation efforts. **Developing countries**, who are more vulnerable to the impacts of climate change, have **often argued that adaptation is not given sufficient attention**.

Adaptation involves efforts that help a country to negate or deal with the impacts of climate change.

Problem in Defining Goals – Just as the 2 degree or 1.5 degree Celsius targets serve as the global goal for mitigation, it was hoped that COP27 would make some progress on identifying the adaptation goals. However, nothing much was delivered on this track.

Defining global goal on adaptation is much more complex, considering that **benefits of adaptation accrue locally, not at a global level**.

Early Warning system - An **important initiative** on adaptation came from the **UN Secretary General**, who unveiled plans of the **World Meteorological Organisation (WMO)** to set up **early warning systems in areas that do not have them** (About one-third of the world).

Finance

- The **biggest disappointment**, not surprisingly, came in matters related to money.
- The developed countries have not yet delivered on their promise to mobilise **USD 100 billion every year as Climate finance for mitigation and adaptation** purposes, something that should have happened in 2020.
- The **developed countries** have said they **will ensure the USD 100 billion flow from 2023**. A parallel discussion is going on to scale up this amount from 2025.
- Another expectation was to see some money flowing in for adaptation purposes. **Developing countries have been demanding that at least half of climate finance should be directed towards adaptation projects.**

PSLV-C54 places Earth observation satellite and 8 nanosatellites in orbit

Relevance: Prelims & Mains Paper III



Why in news?

- In **one of its longest missions**, the Indian Space Research Organisation (**ISRO**) **successfully placed nine satellites, including an Earth Observation Satellite (EOS-06)** in multiple orbits with the help of the space agency's Polar Satellite Launch Vehicle (PSLV-C54).
- This is the **56th flight of the Polar Satellite Launch Vehicle (PSLV)** and the **24th flight of the PSLV-XL version**.

EOS-6

- The **third generation Indian satellite for monitoring the oceans** is formally named as **Earth Observation Satellite-6 (EOS-6)**.
- The ocean observing mission is a **follow up to OceanSat-1 or IRS-P4 and OceanSat-2** launched in **1999 and 2009**, respectively.
- The **Oceansat-3** was placed in the **polar orbit at the height of about 740 kilometers** above sea level.
- While at **1100 kilograms**, it is only slightly heavier than Oceansat-2.

Instruments of EOS-6

- The satellite houses **three ocean observing sensors** viz **Ocean Color Monitor (OCM-3)**, **Sea Surface Temperature Monitor (SSTM)**, and **Ku-Band scatterometer (SCAT-3)**. There is also an **ARGOS payload**. All these sensors have their own importance for India's blue economy aspirations.
- **OCM-3** will **observe the day side of the earth every day** and will **provide crucial data on distribution of ocean algae** which is the **base of the food chain** within marine ecosystem.
- The **SSTM** will provide **ocean surface temperature** which is a **critical ocean parameter to provide various forecasts** ranging from **fish aggregation to cyclone genesis and movement**. Temperature is a key parameter required to monitor health of the **coral reefs**, and if needed, to provide coral bleaching alerts.
- The **Ku-Band scatterometer** onboard EOS-6 will provide **high resolution wind vector (speed and direction) at the ocean surface**, something which any seafarer would like to know of, whether its fishermen or shipping company.
- The data of temperature and wind is also very important for assimilation into ocean and weather models to improve their forecast accuracies.
- **ARGOS** is a **communication payload jointly developed with France** and it is **used for low-power (energy-efficient) communications** including **marine robotic floats (Argo floats)**, **fish-tags, drifters, and distress alert devices** useful for conducting effective search and rescue operations.

India-Bhutan Satellite

- The **eight nano satellites** include **ISRO Nano Satellite for Bhutan (INS-2B)**.
- India-Bhutan Sat was successfully deployed. A **collaborative mission** between India and Bhutan, the INS-2B satellite has two payloads namely NanoMx, a **multispectral optical imaging payload** and **Digipeater**.
- "Digipeater" is short for "**Digital Repeater**". It **receives a packet of data, stores it in internal memory and then a moment later retransmits it on the SAME frequency**.
- The India-Bhutan satellite is regarded as very **important milestone in the history of joint collaboration** of Indian scientist and Bhutanese scientists in building this satellite with two payloads.

SCIENCE
&
TECHNOLOGY

Sun 'smiling' image shared by NASA

Relevance: Prelims & Mains Paper III; Science & Technology

Why in news?

- Recently, the @NASASun Twitter handle shared an image of the sun seemingly 'smiling'.
- Captured by the NASA Solar Dynamics Observatory, the image has dark patches on the sun's surface resembling eyes and a smile.
- NASA explained that the patches are called **coronal holes**, which can be seen in ultraviolet light but are typically invisible to our eyes.



Coronal holes

- Because they contain little solar material, they have lower temperatures and thus appear much darker than their surroundings.
- Coronal holes can last between a few weeks to months.

New hope for malaria vaccine

Relevance: Prelims & Mains Paper III; Science & Technology

Why not developed so far?

- Malaria kills nearly 600,000 people every year, the majority of whom are children under the age of five in sub-Saharan Africa.
- The need to develop an effective vaccine against the disease has long been a top priority — but given the highly complex life cycle of the parasite, characterisation of key elements that correlate with protective immunity has been very difficult.

Mosquirix

- After decades of slow progress, there seems to be light at the end of the long tunnel.
- WHO approval in October 2021 for RTS,S/AS01 (Mosquirix) developed by GlaxoSmithKline for immunising children was a major milestone.
- Although RTS,S/AS01 has modest efficacy and reduces severe malaria cases by only about 30 per cent after four doses given to children under age 5, it still provides significant public health benefits, and could save thousands of lives every year.
- GSK has granted Bharat Biotech licence to manufacture Mosquirix, and by 2029, the Hyderabad-based company is expected to be the sole global manufacturer of this vaccine.
- However, RTS,S/AS01 fails to meet the WHO's own benchmark for malaria vaccine efficacy of 75 per cent set in 2015.

R21/Matrix M

- In September 2021, another malaria vaccine, **R21/Matrix M**, developed by **the University of Oxford in the UK**, demonstrated an **efficacy of 77 per cent in phase 1 and 2 trials** among 450 children in Burkina Faso.
- In early September 2022, this vaccine once again made headlines after publication of results of a booster dose of R21/Matrix-M in the journal *Lancet Infectious Diseases* showed a high efficacy of 80 per cent was maintained after two years.

Road ahead

- The road ahead is long, but R21, alone or in combination can continue to be developed to achieve the ultimate goal of malaria eradication.
- It is clear that Indian companies will play a central role in the development and/ or production of efficacious malaria vaccines at an affordable cost.

India's first private satellite vehicle set for launch: Vikram-S

Relevance: Prelims & GS Mains III; S&T

Why in news?

- India's first privately developed launch vehicle is set to make its maiden flight from Indian Space Research Organisation's (ISRO) launchpad at Sriharikota between November 12 and 16.
- The mission, of Hyderabad-based Skyroot Aerospace, is called 'Prarambh' (the beginning), and will carry two Indian and one foreign customer payloads on the launch vehicle named 'Vikram'.

Mission Prarambh

- Prarambh will see Vikram-S carry three customer satellites in a sub-orbital flight.
- The Vikram-S rocket is a single-stage sub-orbital launch vehicle.
- Sub-orbital flight, like the ones undertaken by Jeff Bezos and Richard Branson, travel slower than orbital velocity — they are fast enough to reach outer space but not fast enough to stay in orbit around the Earth.

Vikram's features

- Skyroot is the first startup to sign a memorandum of understanding with ISRO for launching its rockets.
- Its launch vehicles have been crafted specially for the small satellite market, and are named 'Vikram' as a tribute to Vikram Sarabhai, founder of the Indian space programme.
- Skyroot claims a Vikam rocket can be assembled and launched within 24 hours from any launch site, and has the "lowest cost in the payload segment".

Need for such LV

- The demand for the launch of small satellites has increased at a rapid pace in the last eight to ten years, thanks to the ever-growing need for space-based data, communication, surveillance, and commerce.
- The need for satellite data, imageries and space technology now cuts across sectors, from weather to agriculture to transport to urban development.

Need for such LV

- In India, ISRO is capable of launching satellites into space, and the demand is fast outrunning its capacity, especially as the space agency also has other, larger goals it needs to focus on.
- Therefore, the sector is being opened up to private players, with ISRO helping them with facilities and knowledge.
- The use of facilities can be chargeable, providing ISRO with revenue.

Artemis 1 Mission Launched

Relevance: Prelims & GS Mains III; S&T

Why in news?

- NASA's giant Moon rocket lifted off on its debut flight on November 16.
- The Artemis 1 mission is unmanned mission to the Moon. The mission involves Orion space capsule, which carries three dummies that mimic astronauts — with the intention of carrying out tests ahead of future manned missions to the Moon and beyond.
- The Orion space capsule that sits atop the 32-storey Space Launch System (SLS) vehicle will complete a 25-day lunar Orbiter mission before splashing down in the Pacific Ocean on December 11.

Difference from Past Moon Missions

- The Mission is considered a new phase of deep space exploration a half century after the six Apollo human Moon landings between 1969 and 1972.
- Although the objective is to ensure the return of humans to the Moon, the Artemis missions — named after Apollo's mythological twin sister — are going to be qualitatively very different from the Apollo missions of 50 years ago.
- The Moon landings of the 1960s and 1970s were guided by Cold War geo-political considerations. The technology ecosystem wasn't fully ready yet to fully realise the potential of that monumental scientific breakthrough — and the astronauts who landed on the Moon could do little more than bring back samples to Earth for investigations.

Stepping stone

- While on the face of it, **Artemis 1** has fairly humble mission objectives — it is technically **only a lunar Orbiter mission with no astronauts on board** — it is a **stepping stone to much greater things.**
- It is the first in a series of missions that are planned to
 1. not only **take humans back** to the Moon, but to also explore the **possibilities of extended stay there**, and
 2. to **investigate the potential to use the Moon as a launch pad for deep space explorations.**
 3. It will work towards **extracting the resources found on the Moon, build from the materials available there, and harness hydrogen or helium as energy source.**

Mission Payloads

- It is carrying several payloads in the form of **small satellites called CubeSats**, each of which is **equipped with instruments meant for specific investigations and experiments.**
- The **focus of these investigations is to explore long-term stays of human beings in space, and on the Moon.**
- **One CubeSat will search for water in all its forms, another will map the availability of hydrogen that can be utilised as a source of energy.**
- Then there are **biology experiments, investigating the behaviour of small organisms like fungi and algae in outer space, and the effect of radiation, especially the reaction on their genes.**

Orion spacecraft

- The Orion spacecraft is specifically designed to carry astronauts into deep space on future missions.
- NASA hopes to establish a base on the Moon, and to send astronauts to Mars by the late 2030s or early 2040s.
- The three dummy 'passengers' are mannequins made of material that mimic human bones, skin, and soft tissue.
- These are equipped with a host of sensors to record the various impacts of deep-space atmosphere on the human body.

SLS rocket

- The SLS rocket is the most powerful ever built, more powerful than the Saturn V rockets that had taken the Apollo missions to the Moon.
- The 98-metre-tall vehicle, weighing 2,500 tonnes, can help the Orion spacecraft achieve speeds of over 36,000 km per hour, and take it directly to the Moon, which is 1,000 times farther than the International Space Station that sees a regular traffic of astronauts.
- The planned duration of the Artemis 1 mission is 25 days, 11 hours, and 36 minutes. The Orion capsule will travel a total distance of 1.3 million miles, re-entering the Earth's atmosphere at 24,500 mph and splashing down on December 11.

Small Modular Reactors (SMR)

Relevance: Prelims & Mains Paper III; Science & Technology



Small Modular Reactors

- Small Modular Reactors (SMR) **have capacity up to 300 MW capacity**. By nature, they are **flexible in design**.
- Being **mobile and agile**, SMR can be **factory-built unlike the conventional nuclear reactors that are built on-site**. Thus, SMRs offers significant **savings in cost and construction time**.
- SMR is a promising technology in industrial de-carbonization especially where there is a requirement of reliable and continuous supply of power.
- It is also said that SMR is **simpler and safer** as compared to large nuclear plants.
- **Steps are being taken to build such reactors in India.**

SOCIAL ISSUES

Ela Bhatt and SEWA

Relevance: Prelims & GS Mains I; Social Issues

Why in news?

- **Ela Ramesh Bhatt** (7 September 1933 – 2 November 2022) **died recently**.
- **Founded SEWA**- She founded the **Self-Employed Women's Association of India (SEWA) in 1972**.
- **Chancellor of the Gujarat Vidyapith** - She was the chancellor of the Gujarat Vidyapith from 7 March 2015 to 19 October 2022.

Early life and background

- **Teacher** - Bhatt started her career teaching English for a short time at **SNDT Women's University**, better known as SNDT, in Mumbai.
- **Legal department of TLA** - Being a Lawyer, In 1955 she **joined the legal department of the Textile Labour Association (TLA)** in Ahmedabad.
- **Marriage** - In 1956, Ela Bhatt married Ramesh Bhatt (now deceased).
- **Head of Women's wing** - Ela became **head of women's wing of TLA in 1968**.
- **Self-employed women not under legal umbrella** - The female textile workers worked elsewhere to supplement the family income, but state laws protected only industrial workers and not these **self-employed women**.



Formation of SEWA

- **Union of Self employed women within TLA** - With the co-operation of Arvind Buch, then-president of the TLA, she undertook to **organise these self-employed women into a union under the auspices of the Women's Wing of the TLA.**
- **Formation of SEWA** - Then in **1972** the Self-Employed Women's Association (SEWA) was established with **Buch as president and she served as its general-secretary from 1972 to 1996.**

Awards

- **Padma Shri and Padma Bhushan** - Ela Bhatt was awarded the civilian honour of Padma Shri by the Government of India in 1985, and the Padma Bhushan in 1986.
- **Ramon Magsaysay Award for Community Leadership** – She was awarded the Ramon Magsaysay Award for Community Leadership in 1977.
- **Right Livelihood Award** - She was also awarded Right Livelihood Award in 1984.
- **Niwano Peace Prize** - She was also chosen for the Niwano Peace Prize for 2010 for her work empowering poor women in India.
- **Global Fairness Initiative Award** - Global Fairness Initiative Award for helping move more than a million poor women in India to a position of dignity and independence.
- **Radcliffe Medal** - Ela Bhatt was honoured with the prestigious Radcliffe Medal on 27 May 2011 for her efforts in helping uplift women.

-Indira Gandhi Prize for Peace, Disarmament and Development-
In November 2011, Ela Bhatt was selected for the Indira Gandhi Prize for Peace, Disarmament and Development 2011 for her lifetime achievements in empowering women through grassroots entrepreneurship.

About SEWA

- Self-Employed Women's Association (SEWA), meaning "service", is a trade union based in Ahmedabad, India, that promotes the **rights of low-income, independently employed female workers**.
- With **over 2.1 million participating women**, SEWA is the **largest organization of informal workers** in the world.
- Self-employed women are defined as those who do not receive a salary like that of formally-employed workers and therefore have a more precarious income and life.
- **Activities** of SEWA includes:
 1. **Promotion of rights**
 2. **Promotion of cooperatives and self-help groups**
 3. **Foster leadership and business skills among women**

Child marriages in India

Relevance: Prelims & Mains Paper I; Social Issues

Why needs to be checked?

- Rights activists and health experts say the consequences of child marriage are dire, not only because it **violates children's rights**, but also because it results in **more infant and maternal deaths**.
- Children born to adolescent mothers have a greater possibility of seeing **stunted growth** as they have **low weight at birth**.
- According to NFHS-5, prevalence of **child stunting is 35.5%** in 2019-21.

Position in India

- There is a growing trend for decline in the overall prevalence of child marriage, but **23.3%** is still a disturbingly high percentage.
- **Eight States** have a higher prevalence of child marriage than the national average — **West Bengal, Bihar and Tripura** top the list with **more than 40% of women** aged 20-24 years married below 18, according to NFHS data.

Actions required

- Rights workers and welfare officials say a lot more needs to be done on factors closely linked to child marriage, including **eradication of poverty, better education and public infrastructure facilities for children, raising social awareness on health, nutrition, regressive social norms and inequalities.**
- They stress on an all-pronged approach to end the practice; **strong laws, strict enforcement, preparing an ideal situation on the ground to ensure that the girl child** — girls with either or below primary level education have experienced higher levels of child marriage as data show — **gets an education and preferably vocational training** as well so that she can be financially independent.

Law interventions

- There are several laws including the **Prohibition of Child Marriage Act, 2006** and the **Protection of Children from Sexual Offences Act, 2012**, which aim at protecting children from violation of human and other rights.
- A parliamentary standing committee is **weighing the pros and cons of raising the age of marriage for women to 21**, which has been cleared by the Union Cabinet.

Should the age of consent be changed for adolescents?

Relevance: Prelims & GS Mains I; Social Issues

Provisions of POCSO Act

- Under The **Protection of Children from Sexual Offences Act, 2012**, and under **several provisions of the IPC**, **whoever commits a penetrative sexual assault on a child — anyone below 18 years of age — can be “imprisoned for a term which is not less than seven years but which may extend to imprisonment for life, and shall also be liable to [a] fine.”**
- Even if the girl is **16 years old**, she is considered a **“child” under the POCSO Act** and hence her **consent does not matter**, and any **sexual intercourse is treated as rape**, thus opening it up to stringent punishment.

Misuse of law

- There have been several instances in the past few years when the courts have quashed criminal proceedings of rape and kidnapping, after being convinced that the law was **being misused** to suit one or the other party.
- Often, the **accused is booked under IPC, POCSO Act and the Prohibition of Child Marriage Act, 2006**.
- Such **criminal prosecution** of a minor girl or boy is causing **severe distress** to all concerned, including the families.

What needs to be done?

- With the courts and rights activists seeking **amendment to the age of consent criteria**, the ball lies in the government's court to look into the issue.
- In the meantime, **adolescents have to be made aware of the stringent provisions of the Act and also the IPC.**
- Even as activists are calling for a tweak to the POCSO Act, and raising awareness about its terms, a parliamentary committee is looking into the **Prohibition of Child Marriage (Amendment) Bill, 2021** which seeks to **increase the minimum age of marriage for women to 21 years.**
- Rights activists feel instead of helping the community, **raising the age may force vulnerable women to remain under the yoke of family and social pressures.**

Kempegowda bronze statue

Relevance: Prelims & GS Mains I; Social Issues

Nadaprabhu Kempegowda

- **Nadaprabhu Kempegowda**, a 16th century chieftain of the **Vijayanagara empire**, is credited as the **founder of Bengaluru**.
- It is said that he **conceived the idea of a new city while hunting with his minister**, and later marked its territory by **erecting towers in four corners** of the proposed city.
- Kempegowda is also known to have **developed around 1,000 lakes in the city to cater to drinking and agricultural needs**.
- He was from the dominant **agricultural Vokkaliga community** in south Karnataka.

Important inaugurations

- Prime Minister Narendra Modi unveiled a **108-feet tall bronze statue** of 'Nadaprabhu' Kempegowda.
- He also inaugurated **Terminal 2 of the Kempegowda International Airport**, which was built at a cost of around Rs 5,000 crore.
- He also **flagged off two trains, south India's first Vande Bharat Express**, and **Bharat Gaurav Kashi Darshan train**.

About Bronze statue

- The **108-ft bronze statue** is constructed in the airport premises.
- It has a **4,000 kg sword**.
- The statue has been installed at the city's international airport at the cost of **Rs 100 crore**.
- Also termed the "**Statue of Prosperity**", **CM of Karnataka Bommai claimed** that the structure has been termed the "**first and tallest bronze statue of a founder of a city**" by the **World Book of Records**.

Places after name

- His name is everywhere in the city – **the Kempegowda International Airport**, the **Kempegowda Bus Stand**, and even the **main metro station** in the city is called **Nadaprabhu Kempegowda metro station**.



Mother Tongue Survey of India

Relevance: Prelims & GS Mains I; Social Issues

About the survey

- According to the report, the Mother Tongue Survey of India (MTSI) is a project that “surveys the mother tongues, which are returned consistently across two and more Census decades”.
- It also documents the linguistic features of the selected languages.
- The report states that the NIC and the National Film Development Corporation (NFDC) document the linguistic data of the surveyed mother tongues in audio-video files.
- Video-graphed speech data of Mother Tongues will also be uploaded on the NIC survey for archiving purposes.

Number of mother tongues

- As per an analysis of 2011 linguistic census data in 2018, more than 19,500 languages or dialects are spoken in India as mother tongues.
- The category “mother tongue” is a designation provided by the respondent, but it need not be identical with the actual linguistic medium. After subjecting the 19,569 returns to linguistic scrutiny, edit and rationalisation, they were grouped into 121 mother tongues, the Registrar General and Census Commissioner, India.
- According to the 2011 linguistic census, Hindi is the most widely spoken mother tongue, with 52.8 crore people or 43.6 per cent of the population declaring it as the mother tongue. The next highest is Bengali, mother tongue for 9.7 crore individuals, and accounting for 8 per cent of the population.

Global Dashboard for Vaccine Equity

Relevance: Prelims & GS Mains I; Social Issues



About the Global Dashboard for Vaccine Equity

- The Global Dashboard for Vaccine Equity is a joint effort by the United Nations Development Programme (UNDP), the World Health Organization (WHO) and the University of Oxford.
- The Global Dashboard for Vaccine Equity combines the latest data on the global roll-out of COVID-19 vaccines with the “most recent socio-economic information to illustrate why accelerating vaccine equity is not only critical to saving lives but also to driving a faster and fairer recovery from the pandemic with benefits for all.”
- It provides new, actionable insights and possibilities for policy makers to dive into the implications of vaccine inequity for socio-economic recovery, jobs and welfare.

Findings

- It has put out recent data that justifies the **drastic inequality** in vaccine distribution programme:
 1. **Only one in four people has been vaccinated** with at least one dose in **low and middle income countries** as of November 9, 2022.
 2. In comparison, in **high income countries**, **three in four people** have got at least one dose of the vaccine.

World's population touches 8 billion: How India is placed

Relevance: Prelims & GS Mains I; Social Issues

UN population report

- The **United Nations Department of Economic and Social Affairs** released the **World Population Prospects 2022**, the **27th edition** of **official UN population estimates and projections** prepared by the department's **Population Division**.
- The report is **released every year on World Population Day**.
- World Population Day is an annual event, observed on **July 11 every year**, which seeks to **raise awareness of global population issues**.
- The event was **established by the Governing Council of the United Nations Development Programme in 1989**.

Why in news?

- The human population touched **8 billion November 15**, a milestone that heralds both opportunities and challenges — especially for India, which is set to become the world's most populous country next year by surpassing China.

Population Growth

- The UN population report said the global population is **growing at its slowest rate since 1950, having fallen under 1 per cent in 2020.**
- The world's population could grow to around **8.5 billion in 2030** and **9.7 billion in 2050.**
- It is projected to reach a **peak of around 10.4 billion people during the 2080s** and to remain at that level until 2100.

How India is placed

- **India is projected to overtake China** as the world's most populous country in **2023.**
- The population prospects report had said that **India's population** stands at **1.412 billion in 2022**, compared to **China's 1.426 billion.**
- India is projected to have a population of **1.668 billion in 2050**, way ahead of **China's 1.317 billion people by the middle of the century.**
- India has prospects to reap the demographic dividend as the **median age** of an Indian this year was **28.7 years**, compared to **38.4 for China** and **48.6 for Japan** against a **global value of 30.3 years.**
- According to estimates, **68 per cent of India's population** is **between 15-64 years old in 2022**, while **people aged 65 and above** comprise **seven per cent** of the population.
- At **253 million**, India is also home to the world's **largest adolescent population (10-19 years)**. It is currently experiencing a demographic window of opportunity, a **"youth bulge"**.

How China is placed

- China's elderly population reached 267 million last year, accounting for 18.9 per cent.
- It is estimated that the elderly population will top 300 million by 2025 and 400 million by 2035.
- The size of China's senior population and its proportion of the total population is expected to peak around 2050, posing huge challenges to the provision of public services and to the national social security system.
- On the one hand, China is rapidly ageing, and on the other, its population is in decline due to falling birth rates. This is raising concerns over the future availability of a labour force, the main driver of the country's economic growth.
- China's population grew by less than half a million-last year to 1.4126 billion as the birth rates fell for the fifth consecutive year.
- Since last year, China has allowed couples to have three children and even announced incentives for people to have more children.

The SC ruling on pensions for women IAF officers

Relevance: Prelims & Mains Paper I; Social Issues

Why in news?

- In an order on November 16, the **Supreme Court asked the Indian Air Force (IAF) to consider the grant of pensionary benefits to 32 Short Service Commission (SSC) women officers, who fought for 12 long years to be reinstated and granted permanent commission.**
- This is the latest in a series of legal judgements related to women officers in the armed forces, giving them equal opportunities along with their male counterparts.

What did the Court say?

- SC Bench said that, “we are of the view that these women SSC officers be considered for **grant of pensionary benefits**,” while exercising its extraordinary power under **Article 142** of the Constitution for doing complete justice in any matter pending before it.
- The officers had joined the service between 1993-1998 and were granted extensions of six and four years successively before being released from service between 2006 to 2009.

Women in Navy and IAF

- The Navy and the IAF had opened up permanent commission to women much before the Army.
- The Navy has also opened 12 branches, cadres and specialisations for women officers.
- In the IAF, Women serve in all arms and services as officers in the IAF akin to their male counterparts.
- As per a written reply in Parliament in March 2022, there are 1,640 women officers in the IAF excluding medical, dental and nursing officers. This number includes 15 fighter pilots, and 53 transport and helicopter pilots each. The fighter stream of IAF was opened for women in 2016.

Women in Army

- In a landmark judgment in the Babita Puniya case in February 2020, the Supreme Court directed that women officers in the Army be granted permanent commission (PC) as well as command postings in all services other than combat.
- Women are commissioned in 10 arms and services as officers and that permanent commission has also been granted.
- Women serve as medical doctors and dentists in the Indian armed forces. Only women serve as nurses in Military Nursing Service. Women are being inducted as jawans in Corps of Military Police since 2019.
- It has already announced that women would be inducted as Agniveers under the Agnipath scheme.

MISCELLANEOUS

Jimmy Jimmy, now an anthem in China against Xi's Zero Covid Policy



Relevance: Prelims

Why in news?

- In China, a song from India is being used by the people to showcase their dissatisfaction with the Xi Jinping government's stringent zero-Covid policy that is currently burdening the people, causing many to be stuck at home.

Protest

- People are protesting singing disco king Bappi Lahiri's famed composition, Jimmy Jimmy, from Mithun Chakravarty starrer Disco Dancer (1982).
- In Mandarin 'Jie mi, Jie mi' translates to "Give me rice".
- People have even posted videos on social media singing the song along with empty rice vessels, highlighting the shortage of rice and other essentials.

Popularity in Russia

- Another country that was in awe of Jimmy Jimmy was Russia, which before its disintegration and while going through the Cold War watched Disco Dancer — the highest-grossing foreign film in the Soviet Union.
- Even today, Russians know and sing the songs from Disco Dancer.

Rising Sun Water Fest 2022

Relevance: Prelims

Rising Sun Water Fest 2022

- Rising Sun Water Fest 2022 is being conducted at the **Umiam Lake, Shillong** under the aegis of Headquarters **Eastern Command** which has its **aquatic node** at the Lake.
- This is the **first edition** of the event. In this edition, more than 150 participants from 22 clubs are participating in **Rowing and Sailing** disciplines from all across the country.
- The Rising Sun Water Festival is yet another shining example of the **Services teaming up with the State Govts** to take forward the concept of "**Khelo India**" and **integrating the North East**.

Garo tribal community

- Members of the **Garo tribal community performed Wangala dance** on the occasion of 'The Rising Sun Water Fest-2022'
- Wangala is also called the **festival of "The Hundred Drums"**.
- This harvest festival is celebrated by the Garo tribe, who **live in Meghalaya, Nagaland and Assam in India and Greater Mymensingh in Bangladesh**.
- In this **post harvest festival**, they give **thanks to Misi Saljong, the sun god**, for blessing the people with a rich harvest.



Tribal with Drum

Supreme Court on EPFO pension scheme

Relevance: Prelims



Employees' Pension Scheme (EPS), 1995

- The Employees' Provident Funds and Miscellaneous Provisions Act, 1952 originally did not provide for any pension scheme.
- In 1995, through an amendment, a scheme was formulated for employees' pension, wherein the pension fund was to comprise a deposit of 8.33 per cent of the employers' contribution to be made towards provident fund corpus.
- It is to be noted that both the employee and the employer contribute 12 per cent of the employee's basic salary and dearness allowance to the EPF.
- The employee's entire part goes to EPF, while the 12 per cent contribution made by the employer is split as 3.67 per cent contribution to EPF and 8.33 per cent contribution to EPS.
- Apart from this, the Government of India contributes 1.16 per cent as well for an employee's pension. Employees do not contribute to the pension scheme.

Amendment in 2014

- The **EPS amendment of 2014** had **raised the pensionable salary cap to Rs 15,000 a month** from Rs 6,500 a month, and **allowed members along with their employers to contribute 8.33 per cent on their actual salaries (if it exceeded the cap) towards the EPS.**
- It gave all EPS members, as on September 1, 2014, **six months to opt for the amended scheme.**
- The amendment, however, required such members (with actual salaries over Rs 15,000 a month) to **contribute an additional 1.16 per cent of their salary exceeding Rs 15,000 a month towards the pension fund.**

Supreme Court ruling

- The **Supreme Court recently upheld the Employees' Pension (Amendment) Scheme, 2014; allowing another opportunity to members of the Employees' Provident Fund Organisation (EPFO), who have availed of the EPS, to opt for higher annuity over the next four months.**
- **Employees** who were existing EPS members as on September 1, 2014 can **contribute up to 8.33 per cent of their 'actual' salaries** — as against 8.33 per cent of the pensionable salary capped at Rs 15,000 a month — **towards pension.**
- The court, however, **read down certain provisions** concerning the current subscribers to the scheme. It **held that the amendment which required members to contribute an additional 1.16 per cent of their salary exceeding Rs 15,000 a month as ultra vires** of the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952.

Mass layoffs at Twitter

Relevance: Prelims

Why in news?

- Twitter began mass layoffs recently, **firing half of the company's 7,500 staff**, with Elon Musk seeking to implement sweeping changes upon becoming owner of the social media platform.
- After taking over the company in October, Musk had immediately fired Twitter's **top executives, including its CEO Parag Agrawal and chief legal officer Vijaya Gadde**.
- The widespread cuts to Twitter's workforce has been met with a **class action lawsuit**, which alleges that the sudden layoffs were in **violation of California and federal law**.

Reason for firing

- Musk, the world's richest person, tweeted on Friday that Twitter was forced to reduce their workforce **because "the company is losing over \$4M/day,"** adding that everyone who was removed was offered three months of severance pay.
- In a separate tweet, Musk, who has previously described himself as a "free speech absolutist," said that Twitter was experiencing a **"massive drop in revenue."**

Lawsuit

- Several recently fired employees of Twitter filed a class action suit in a San Francisco federal court, for the company's **alleged violation of a nation-wide and California labour law, by not providing employees advanced notice of their dismissal and severance pay.**
- The lawsuit seeks to ensure that Twitter complies with the **federal Worker Adjustment and Retraining Notification (WARN) Act, as well as the California WARN Act** by **providing requisite notice and severance pay** guaranteed by the laws.

WARN Act

- The legislation requires **businesses that have more than 100 employees to provide 60 days of advance notice before beginning a mass layoff.**
- According to Reuters, a mass layoff by law is one that affects at least 500 employees during a 30-day period, or at least 50 employees if the layoff impacts at least a third of the company's workforce. In lieu of giving notice, **employers can give workers 60 days of severance pay.**

Misinformation Fears

- The mass job cuts across departments, including among those that **do content moderation and monitor disinformation**, have led to growing concerns that there will be an outflow of false information and conspiracy theories before the midterm elections of November 8, which will decide whether it is the Democrats or Republicans who will control Congress.

Mastodon: Social network hailed as a Twitter alternative

Relevance: Prelims

About Mastodon

- It is a **decentralised**, open alternative with **far more privacy**.
- While Twitter and Facebook are controlled by one company – Mastodon is **installed on thousands of computer servers, largely run by volunteer administrators who join their systems together in a federation**.
- **Mastodon – named after an extinct breed of mammoth.**
- **Eugen Rochko, a young German programmer** is behind creation of Mastodon.

Hwasong-17, North Korea's new 'monster missile'

Relevance: Prelims

North Korea test fired its massive new **Hwasong-17** intercontinental ballistic missile (ICBM).

The Hwasong-17 is **nuclear-armed North Korea's biggest missile yet**, and is the **largest road-mobile**, liquid-fuelled **ICBM** in the world.

Its diameter is estimated to be between 2.4 and 2.5 metres, and its total mass, when fully fuelled, is likely somewhere between 80,000 and 110,000 kg.

Unlike North Korea's earlier ICBMs, the Hwasong-17 is **launched directly from a transporter, erector, launcher (TEL) vehicle** with 11 axles.

It is said that the missile can travel as far as **15,000 km** (9,320 miles), enough to reach the continental United States.



Network Readiness Index 2022

Relevance: Prelims



India's Performance

- India has improved its position by six slots and is now placed at **61st rank as per the Network Readiness Index 2022** (NRI 2022) report released recently.
- India has not only improved its ranking, but also improved its **score from 49.74 in 2021 to 51.19 in 2022.**
- NRI-2022 report states that India has a greater network readiness than would be expected given its income level. India is ranked **3rd out of 36 in the group of lower-middle-income countries** after Ukraine (50) and Indonesia (59).

About the Index

- In its latest version of 2022, the NRI Report maps the **network-based readiness landscape of 131 economies** based on their performances in **four different pillars: Technology, People, Governance, and Impact** covering a total of **58 variables.**
- The report has been prepared by the **Portulans Institute, an independent non-profit, nonpartisan research and educational institute based in Washington DC.**

GI tag application for the Nicobari hodi

Relevance: Prelims

Why in news?

- The **Geographical Indications Registry** at Guindy, **Chennai**, has received an application from the **Tribal Development Council, Andaman & Nicobar Islands**, seeking the Geographical Indication (**GI**) tag for the **Nicobari hodi craft**.
- This is the **first application from the Union Territory** seeking a tag for one its products.
- A geographical indication (GI) is a sign used on products that have a **specific geographical origin and possess qualities or a reputation that are due to that origin**.

Nicobari Hodi

- The **hodi is the Nicobari tribe's traditional craft**. It is a **canoe**, very commonly operated in the Nicobar group of islands. **Canoe is a light, narrow boat with pointed ends and propelled with a paddle or paddles**.
- The technical skills for building a hodi are based on **indigenous knowledge inherited by the Nicobarese from their forefathers**.
- The hodi is **built using either locally available trees or from nearby islands**, and its design varies slightly from island to island.



National Gopal Ratna Awards 2022

Relevance: Prelims



About the Awards

- National Gopal Ratna Award is **one of the highest National Awards in the field of livestock and dairy sector.**
- **Ministry of Fisheries, Animal Husbandry and Dairying** confers the National Gopal Ratna Awards 2022 today.
- The Award is conferred in **three categories**, namely,
 - i. **Best Dairy Farmer Rearing Indigenous Cattle/buffalo Breeds,**
 - ii. **Best Artificial Insemination Technician (AIT) and**
 - iii. **Best Dairy Cooperative/ Milk Producer Company/ Dairy Farmer Producer Organization.**
- Award consists of a **cash prize** of Rs. 5 lakh for 1st rank, Rs. 3 lakh for 2nd rank and Rs. 2 lakh for 3rd rank along with a **Certificate of merit** and a **memento** in each category.

Benefits expected

- Livestock sector is crucial to the Indian economy today, comprising one **third of the agriculture and allied sector GVA** and having over **8% Growth rate.**
- At the same time, Animal Husbandry, Dairying and Fisheries activities play a **significant role in generating farmer income, particularly among the landless, small and marginal farmers and women,** besides providing **cheap and nutritious food to millions of people.**

Lachit Barphukan – 400th Birth anniversary

Relevance: Prelims



Why in news?

- Prime Minister Narendra Modi addressed the **closing ceremony of the year long celebrations of 400th Birth Anniversary** of Lachit Barphukan on 25th November, 2022.
- It has been the constant endeavour of the Prime Minister to honour the unsung heroes in a befitting manner. In line with this, the country is celebrating **2022** as the **400th birth anniversary year of Lachit Barphukan**.
- The celebrations were inaugurated in February this year by the then Hon'ble President of India, Shri Ram Nath Kovind in Guwahati.

About Lachit Barphukan

- Lachit Barphukan (24th November, 1622 — 25th April, 1672) was the **famous General of the Royal Army of the Ahom Kingdom of Assam** who **defeated the Mughals** and successfully **halted the ever expanding ambitions of the Mughals under Aurangzeb**.
- Lachit Barphukan inspired the Assamese soldiers in the **Battle of Saraighat** fought in **1671**, and delivered a crushing and humiliating defeat on the Mughals.
- The heroic fight of Lachit Barphukan and his army remains one of the most inspiring military feats of resistance in the history of our country.

Purnima Devi Barman honoured with UN's highest environmental award



Relevance: Prelims

Champions of Earth Award

- Indian wildlife biologist Dr Purnima Devi Barman was recently awarded with Champions of the Earth award in the Entrepreneurial vision category , UN's highest environmental honour.
- She is the founder of the Hargila Army.
- The Champions of the Earth is an appreciation for innovative ways implemented by the awardees across the world to support nature's extraordinary capacity for renewal.

Purnima Devi Burman

- Barman is an Indian wildlife biologist working in Assam to protect storks. After gaining a Master's degree in Zoology, Barman started a PhD on the greater adjutant stork.
- She decided to delay her thesis after seeing that many of the birds in the region were nearing extinction and decided to focus on keeping the species alive.
- She began campaigning to protect the stork in 2007, focusing on the villages in Assam's Kamrup district, where the birds were most concentrated.

Falling Population

- The **greater adjutant stork is the second-rarest stork species in the world.**
- Their population has **dropped to 1,200 today, less than 1 per cent of what they numbered a century ago**, due to the **destruction of their natural habitat.**
- The **urbanisation** of rural areas is speeding up and **wetlands** where the storks thrive have been **drained, polluted and degraded**, replaced by buildings, roads and mobile phone towers.

Conservation efforts

- Barman had to **change perceptions** of the bird as a bad omen, bad luck or a disease carrier among people in Assam.
- She assembled a group of village women to help her and named the group as the **'Hargila Army'** after the stork, known as **'hargila' in Assamese (meaning 'bone swallower')**.
- They began building **tall bamboo nesting platforms** for the endangered birds to hatch their eggs.
- They helped communities thousands of **saplings** near stork-nesting trees and wetland areas to support future stork populations.
- They also work to **reduce pollution in rivers** by organising cleaning drives on the banks of rivers and in wetlands.

Women centric

- **Over 10,000 women make the Hargila Army today.**
- Barman has helped the women become self-sufficient by **weaving looms and yarn.** They now create and **sell textiles decorated with motifs of the 'hargila'.**
- This **entrepreneurship is creating awareness about the birds and also making women financially independent.**

Leith's Soft-shelled Turtle

Relevance: Prelims

Why in news?

- India's proposal for transferring **Leith's Softshell Turtle** (*Nilssonia leithi*) from **Appendix II to Appendix I** of the **Convention on International Trade in Endangered Species of wild fauna and flora (CITES)** has been adopted by the Conference of Parties (CoP) to CITES in its 19th Meeting at Panama.



Leith's Softshell Turtle

- Leith's Softshell Turtle is a large fresh water soft-shelled turtle which is endemic to peninsular India and it inhabits rivers and reservoirs.
- The species has been subject to intensive exploitation over the past 30 years. It has been poached and illegally consumed within India.
- It has also been illegally traded abroad for being used as pet, for meat and for its calipee.
- The population of this turtle species is estimated to have declined by 90% over the past 30 years such that the species is now difficult to find. It is classified as 'Critically Endangered' by the IUCN.
- The species is listed on Schedule IV of the Wild Life (Protection) Act, 1972, which gives it protection from hunting as well as trade. However, poaching and illegal trade of protected turtle species is a major challenge in India.

Benefits of CITES Appendix I listing

- The CITES Appendix I listing of this Turtle species would ensure that legal international trade in the species does not take place for commercial purposes.
- It would also ensure that international trade in captive-bred specimens only takes place from registered facilities and further that higher and more proportionate penalties are provided for illegal trade of the species.
- The listing of the Leith's soft-shell turtle, thereby, strengthens its CITES protection status so as to ensure better survival of the species.

Bilateral Exercises - NASEEM AL BAHR, HARIMAU SHAKTI & AUSTRALIA HIND

Relevance: Prelims



NASEEM AL BAHR

- 13th Edition of the Indian Navy (IN) - Royal Navy of Oman (RNO) bilateral exercise 'Naseem Al Bahr' (Sea Breeze) took place in November, 2022.
- The first IN-RNO exercise was conducted in 1993. This year marks 30 years of IN-RNO bilateral exercises.

HARIMAU SHAKTI

- India - Malaysia joint military Exercise "Harimau Shakti -2022" commenced at Pulai, Kluang, Malaysia on 28th November and will culminate on 12th December 22.
- Exercise HARIMAU SHAKTI is an annual training event between the Indian and Malaysian Army which is being conducted since 2012.

AUSTRALIA HIND

- The bilateral training exercise "AUSTRALIA HIND 22" between contingents of the Indian Army and the Australian Army is scheduled to take place at Mahajan Field Firing Ranges (Rajasthan) from 28 November to 11 December 2022.
- This is the first exercise in the series of AUSTRALIA HIND with participation of all arms and services contingent from both armies.

India's conservation efforts towards tortoise and turtles lauded in CITES CoP 19

Relevance: Prelims



About CITES

- **CITES** (Convention on International Trade in Endangered Species) is an international agreement to which **States adhere voluntarily**.
- Although CITES is legally binding on the Parties – in other words they have to implement the Convention – it does not take the place of national laws.
- Rather it provides a framework to be respected by each Party, which has to adopt its own **domestic legislation** to ensure that CITES is implemented at the national level.

CoP of CITES

- At **CoP of CITES**, also known as the World Wildlife Conference, all **184 Parties** to CITES have the **right to attend, to put forward proposals for the Conference to consider, and to vote on all decisions**.
- The **19th Meeting of the Conference of the Parties** (CoP 19) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is being **held at Panama City** from 14th November to 25th November 2022.

India's efforts for Tortoise and Turtles

- At CoP 19, India's proposal for induction of fresh water turtle *Batagur kachuga* earned wide support of the parties in CoP 19 of CITES. It was widely appreciated by the parties and well accepted when introduced.
- CITES lauded and recorded the works done by the India in the area of conservation of tortoises and fresh water turtles and efforts made in combating wildlife crime and illegal trade of turtles in the country.
- The resolution documents submitted by the CITES Secretariat specifically mentioned the Wildlife Crime Control Bureau initiative Operation Turtshield, which resulted in nabbing many criminals involved in poaching and illegal trade of fresh water turtles and substantial seizures made by the agencies in different part of the country.

Asim Munir - Pakistan's new army chief

Relevance: Prelims



Appointment

- Pakistan's Prime Minister Shehbaz Sharif has nominated Lieutenant General Asim Munir as the new army chief.
- Munir, whose nomination was approved by President Arif Alvi, takes charge of the Pakistan army when incumbent General Qamar Javed Bajwa retires after a six-year stint.
- .

Posts held

- He was given charge of the country's premier spy agency, the Inter-Services Intelligence (ISI). He held this post for only 8 months, before being promoted to Army chief.

Imphal's Ima market

Relevance: Prelims



Why in news?

- On November 27, External Affairs minister S Jaishankar tweeted pictures of his visit to Manipur's Ima market, calling it a "great example of nari shakti (women's power) powering economic growth".

About Ima Market

- **Ima Keithel, or Mothers' Market**, is an **all-women market**, said to be the largest such shopping complex in Asia.
- Its a unique all women's market, having **3,000 "Imas" or mothers who run the stalls.**
- **Male vendors and shopkeepers are barred here.**
- In 2018, the state government announced that legal action would be taken under the Manipur Municipalities Act, 2004 if any male vendor was found selling goods at the market.

History

- The Ima Market is centuries-old, and has its **origins in Lallup Kaba, an ancient bonded labour system.**
- Under the system, **Meitei men had to compulsorily serve some time working in the military and on other civil projects,** keeping them away from home.
- The **women, thus, were left to manage on their own,** and they developed a market system which is today the Ima Keithel.

