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Other topics

- Meitei Community
- Regulating Artificial Intelligence
- Special Provisions for Delhi U/A 239AA
- 4th Positive Indigenisation List
- US Debt Ceiling Crisis

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1. POLITY & GOVERNANCE

1. 1 CRIMINALISATION OF POLITICS

Context

- The number of candidates with declared criminal cases has increased in the 2018 elections and now, revealed the report 'Karnataka Assembly Elections 2023: Analysis of Criminal Background, Financial, Education, Gender and other Details of Candidates' released by Association for Democratic Reforms (ADR).

What is meant by Criminalization of Politics?

- Criminalization of politics refers to the **infiltration of criminals, lawbreakers, and corrupt individuals into the political system**, who then use their power and influence to further their own interests at the cost of the country and its citizens.

Statistics on Criminalization of Politics in India

- According to a report by ADR and National Election Watch (NEW), **in the 2019 Lok Sabha elections, 43% of the winners had declared criminal cases against themselves, and 29% had declared serious criminal cases**, such as murder, attempt to murder, kidnapping, and crimes against women.
- A report by the National Crime Records Bureau (NCRB) found that between 2014 and 2018, there was a **44% increase in the number of cases of elected representatives** booked under Indian Penal Code (IPC).
- According to the NCRB's "Crime in India" report for 2019, there were **9,427 cases of crimes committed by politicians, of which 4,029 cases were related to corruption.**

Why Criminalization is Bad?

Threat to Democracy	• **It undermines the rule of law and democratic institutions. When politicians with criminal backgrounds hold public office, they can use their power to subvert the justice system and create a culture of impunity.**
Deterioration in the quality of governance	• Politicians with criminal backgrounds are often more concerned with furthering their own interests rather than serving the public.

	• This has led to a lack of accountability, inefficiency, and poor decision-making, which has had a negative impact on the country's development.
Corruption	• Politicians with criminal backgrounds are more likely to be involved in corrupt activities, such as taking bribes and embezzling public funds.
Criminalization of Political Parties	• Today, many politicians with criminal backgrounds have managed to secure top positions in political parties, and in some cases, even become ministers in state and central governments.
Law and Order	• Criminal politicians use their influence to protect themselves and their associates, leading to a breakdown in the justice system.

International Judgments on Criminalization oPolitics

Brazil	• **In 2012, Brazil's Supreme Court found 25 politicians guilty of vote-buying and money-laundering in a major corruption scandal. The court banned these politicians from holding public office for eight years and ordered them to pay heavy fines.**
Italy	• In 2013, the country's highest court upheld the conviction of former Prime Minister Silvio Berlusconi for tax fraud.
South Africa	• In 2018, South Africa's Constitutional Court ruled that former President Jacob Zuma had violated the constitution by refusing to repay public funds that were used to renovate his private residence.
Mexico	• In 2019, a judge in Mexico issued an arrest warrant for former Governor Javier Duarte on charges of organized crime and money-laundering.

International Covenants related to Criminalization of Politics

United Nations Convention against Corruption	• **This is a global agreement that aims to promote international cooperation and prevent corruption in both the public and private sectors.**
SDG	• Goal 16 specifically addresses the issue of promoting peaceful and inclusive societies, providing access to justice for all, and combating corruption and bribery.
OECD Anti-Bribery Convention	• This is a convention that requires member countries to criminalize bribery of foreign public officials and to cooperate with each other in investigations and prosecutions of bribery cases.
Global Forum on Transparency and Exchange of Information for Tax Purposes	• This is a forum that aims to promote transparency and exchange of information between countries to prevent tax evasion and other illicit financial activities.

Solutions to curb Criminalization of Politics

- It is a nationwide problem that needs to be addressed urgently. The first step towards addressing this issue is to **create greater public awareness about the problem.**
- The second step is to bring about **greater transparency in the political system**. This can be achieved by introducing measures such as the disclosure of criminal records of political candidates, stricter election funding rules, and increased monitoring of political campaigns.
- The third step is to **strengthen the legal framework** to ensure that politicians with criminal backgrounds are held accountable for their actions. This can be done by introducing stricter laws and penalties for political corruption and by ensuring that the judiciary is independent and free from political influence.

- There is a need to **set up fast-track courts** to hear cases against politicians with criminal backgrounds. This can help to ensure speedy justice and prevent politicians from using their power to delay or manipulate the legal process.
- The **electoral process should be reformed to prevent criminal elements from getting elected**.
- Finally, there is a need for **political will** to curb criminalization of politics. Politicians themselves should take the lead in setting an example and ensuring that only honest and law-abiding individuals are allowed to hold public office.

1. 2 MERCY PETITION

Context

- The Supreme Court found it inappropriate to direct the government to commute the death penalty of Balwant Singh Rajoana — who is on death row for the 1995 assassination of former Punjab Chief Minister Beant Singh — in the face of the Home Ministry's conclusion that a decision on the mercy petition now would compromise national security.

About Mercy Petition

Definition	• **It is the basic right of the convict to seek mercy from the republican head of the State i.e. from the president to grant him mercy and to reduce the gravity of his punishment.**
Basis	• The underlying philosophy of the mechanism attached to mercy petition is that every socialized or civilized citizen recognizes the act of pardoning or the act of forgiving as gracious and full of humanity. • Everyone has the basic right to live. • It is also mentioned as a fundamental right mentioned under Article 21 of the Indian Constitution.
Legal Provisions	• **United Kingdom:** the queen had the power to forgive any type of crime, even the heinous one in an absolute manner. • **USA:** President has the power to grant pardon to the offences which are committed against the United States of America except in cases related to impeachment. • **Article 72 of the Indian Constitution:** in all cases where the punishment has been awarded by the court-martial or cases where the punishment is a death punishment, the president has the right to grant a pardon or to prolong, suspend or cancel the punishment or to remit or commute the sentence of the person accused of a crime by the court. • **Article 161 of the Indian Constitution:** The Governor of a State shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence against any law relating to a matter to which the executive power of the State extends.
Grounds	• The mercy is granted on the grounds based on his health, physical or mental fitness, his family financial conditions as he is the only sole earner of bread or butter or not.

Arguments in favour

- Mercy Petition lies in **saving an innocent person from being punished due to miscarriage of justice or in cases of doubtful conviction**.
- The hope of being pardoned itself **serves as an incentive for the convict to behave himself in the prison institution** and thus, helps considerably in solving the issue of prison discipline also.
- It **adds a human touch to the country's judicial process** by conferring powers to grant pardon or show Mercy to criminals sentenced to death.
- The courts of civilized states have recognized and acknowledged that a **prolonged delay in executing a death sentence can make the punishment inhuman and degrading**.

SC Rulings

- The Supreme Court in **Ranga Billa Case** observed that it is entirely a discretionary remedy and grant or rejection of it need not be reasoned.
- Court in **Kehar Singh v. Union of India** reiterated its earlier stand and held that the grant of pardon by the President is an act of grace and therefore, cannot be claimed as a matter of right.
- Supreme Court in the **Sher Singh case** fixed a sort of deadline of 3 months on respective governments for disposal of Petitions filed under Articles 72 and 161 of the Constitution.
- Under **a landmark ruling in January 2014 (Mohd. Afzal Guru Case)**, the Supreme Court has humanized the way the state deals with death row convicts whereby a convict cannot be executed for 14 days after the rejection of his Clemency plea.
- The Supreme Court in **Maru Ram vs. Union of India** said that constitutional powers and all public powers should not be exercised in an arbitrary manner and in a mala fide manner.
- The Apex court in **Maneka Gandhi vs. Union of India** said that fair procedure is required and it's the natural demand of Article 21 of the Indian Constitution.

Conclusion

- To conclude, pardoning power of executive is very significant as it corrects the errors of judiciary.
- It eliminates the effect of conviction without addressing the defendant's guilt or innocence.
- **Mercy Petition's timely disposal may prove to be a boon and in the interest of society and the convict considering the period of imprisonment undergone, seriousness of the offence, age of the prisoner, the health of the prisoner, good prison record, remorse and atonement, deference to public opinion etc. Else, it is a bane.**

1. 3 ARTICLE 142 OF THE CONSTITUTION

Context

- A five-judge or constitution bench of the Supreme Court held that a court can directly grant divorce under Article 142 of the Constitution, in cases where the marriage has irretrievably broken down, without referring the parties to a family court first, where they must wait for 6-18 months for a decree of divorce by mutual consent.

About Article 142 of the Constitution

Constitutional Provision	• **Supreme Court may pass such order as is necessary for doing complete justice in any cause or matter pending before it.**
Basis	• Article 142 provides a unique power to the Supreme Court, to do "complete justice" between the parties, where, at times, the law or statute may not provide a remedy. • In those situations, the Court can extend itself to put an end to a dispute in a manner that would fit the facts of the case.

What is the criticism of Article 142?

- The sweeping nature of these powers has invited the criticism that they are **arbitrary and ambiguous**.
- Court then has **wide discretion**, and this allows the possibility of its arbitrary exercise or misuse due to the absence of a standard definition for the term "complete justice".
- **Defining "complete justice" is a subjective exercise** that differs in its interpretation from case to case.
- Another criticism of the powers under Article 142 is that **unlike the legislature and the executive, the judiciary cannot be held accountable for its actions.**
    - Drafting Committee of the Indian Constitution was mindful of the wide-reaching nature of the powers and reserved it only for exceptional situations, which the existing law would have failed to anticipate.

SC Rulings in this regard

- In 1998, the apex court in **'Supreme Court Bar Association vs Union of India'** held that the powers under Article 142 are **supplementary in nature** and could not be used to supplant or override a substantive law and "build a new edifice where none existed earlier".
- In its 2006 ruling in **'A. Jideranath vs Jubilee Hills Co-op House Building Society'**, the Supreme Court discussed the scope of the power here, holding that in its exercise **no injustice should be caused to a person not party to the case.**
- In 2006, the SC in **'State of Karnataka vs Umadevi'** also clarified that **"complete justice" under Article 142 means justice according to law and not sympathy, while holding that it will "not grant a relief which would amount to perpetuating an illegality encroaching into the legislative domain."**

Arguments in favour of Article-142

- The constitution of India believes that **every citizen of India must get "complete justice".**
- It is necessary to intervene in complex cases related to the environment, history and religion and the current laws were insufficient for the current scenario.

Famous cases under Article 142

- In the **Prem Chand Garg case**, SC said that to do complete justice between the parties "must not only be consistent with the fundamental rights guaranteed by the Constitution, but it cannot even be inconsistent with the substantive provisions of the relevant statutory laws," referring to laws made by Parliament.
- In the **Bhopal gas tragedy case**, the SC in 1991 ordered UCC to pay $470 million in compensation for the victims of the tragedy.
- **Coal Block Allocation Case**: The Supreme Court used the said provision to cancel the allocation of coal blocks granted from 1993 onwards.
- **Sale of Liquor /Alcohol banned on state and National Highways:** Supreme Court invoked Article 142 for banning the sale of alcohol and ensure that liquor vends are not visible or directly accessible from the highway within a stipulated distance of 500 metres form the outer edge of the highway.

Conclusion

- Supreme Court tried to explain the phrase 'complete justice' but it is still blurred.
- **It is true that Article 142 has been invoked for the purpose of doing complete justice at large scale to the different section of the population. But, the judgments passed by the Apex Court have created a lot of confusion and there is no clarity on invoking Article 142.**
- The Apex Court could make a strict guideline that justifies the use of Article 142 andmakes sure that it would be a "complete justice" for the society without affecting the rights of citizens.
- The former Attorney General of India Mr. K.K. Venugopal on the said subject quoted the words of Justice Benjamin Cardozo, the judge *"is not a knight-errant roaming at will in pursuit of his own ideal…"*

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1. 4 MEITEI COMMUNITY

Context

- The demand of the Meitei community in Manipur for the Scheduled Tribe (ST) status has faced stiff opposition from the Hill Areas Committee (HAC) of the Manipur Assembly.

Details

The demand	• **The** Meitei community in Manipur **has been demanding the recognition of their Scheduled Tribe (ST) status for a long time.** • **They claim that they are the original inhabitants of the state and that they have been discriminated against by the dominant communities.**
Reaction	• The demand has faced stiff opposition from the Hill Areas Committee (HAC) of the Manipur Assembly, which represents the interests of the hill tribes.

About Hill Areas Committee

Status	• **It was** established under Article 371C of the Indian Constitution**, which grants special provisions for the administration of Manipur.** • It consists of 20 members**, out of which 19 are elected from the hill constituencies and one is nominated by the Governor.**
Powers	• It has the power to make recommendations on matters relating to the welfare and development of the hill areas, such as legislation, budget, schemes and projects. • It has the power to review and monitor the implementation of such matters.

About Meitei community

Status	• **The Meitei community is one of the largest and most influential ethnic groups in Manipur.** • **They trace their ancestry to various clans that inhabited the Imphal Valley region in ancient times.**
Culture	• Language: The **Meiteis speak the Meitei language (also known as Manipuri),** which belongs to the Tibeto-Burman branch of the Sino-Tibetan language family. • Religion: The majority of Meiteis are Hindus, who follow a syncretic form of Vaishnavism that incorporates elements of their indigenous religion, Sanamahism. • **Thang-ta:** A martial art form that involves the use of a sword and spear. It was developed by the Meitei warriors as a means of self-defence and warfare.

ST List

Criteria to add name	**Nearly 6 decades ago** the Lokur Committee defined the criteria to include a new community in the Scheduled Tribe list. The criteria set out by the Lokur Committee to define a community as a Schedule tribe are: • **Indications of primitive traits.** • **Distinctive culture.** • **Geographical isolation.** • **The shyness of contact with the community at large.** • **Backwardness.**
Process	• The **process of adding tribes to the ST list starts with a recommendation from the State governments**.

	• It is **sent to the Tribal Affairs Ministry**, which reviews and sends them to the Registrar General of India, Under the Home Ministry for approval. • After approval, **it is sent to the National Commission for Scheduled Tribes** and then sent to the Cabinet for a final decision. • **Once the cabinet finalizes it, then it introduces a bill in the parliament** to amend the Constitution (Scheduled Castes) Order, 1950, and the Constitution (Scheduled Tribes) Order, 1950.
Benefits of inclusion	• Member of the communities newly listed in the revised list of Scheduled Tribes will be able to derive benefits meant for Scheduled Tribes under the existing schemes of the Government. • They will also be entitled to the benefits of reservation in services and admission to educational institutions as per Government policy.

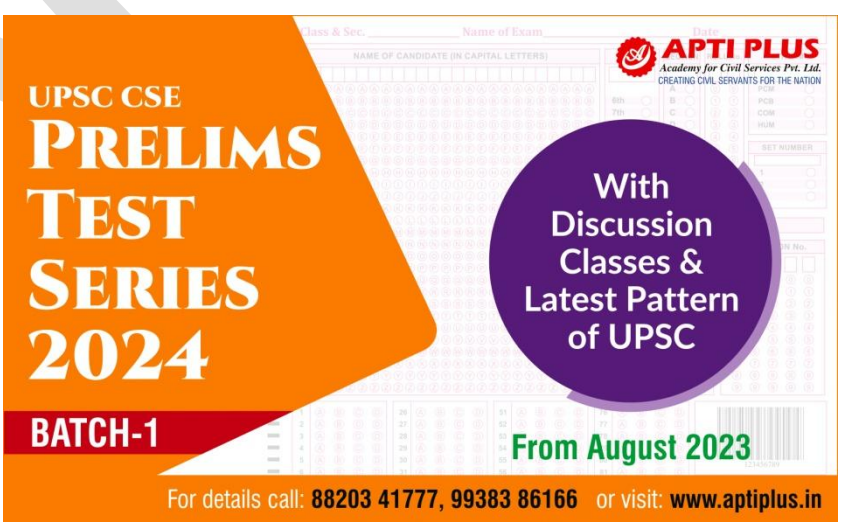
1. 5 WORLD PRESS FREEDOM INDEX 2023

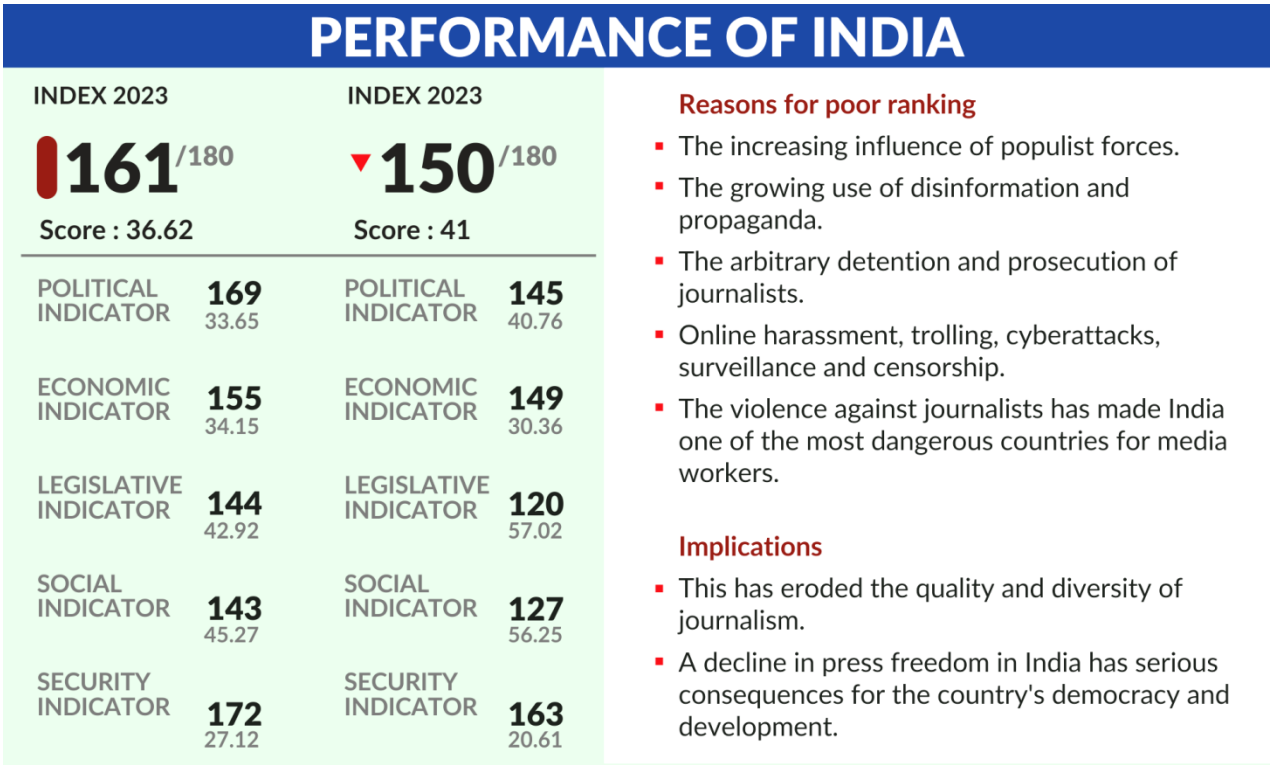
Context

- According to the latest report produced by Reporters without Borders (RSF), India's ranking in the World Press Freedom Index 2023 has dropped to 161 out of 180 countries.

About World Press Freedom Index

Features	• **The World Press Freedom Index is an annual report compiled** by Reporters Without Borders (RSF) **since 2022.** • **The Index is a global indicator of the state of journalism and media freedom in 180 countries and territories.**
Criteria	• The index is based on various indicators such as media pluralism, independence, transparency, legislative framework, quality of infrastructure and abuses and violence against journalists. • **Countries are ranked on a scale from 0–100 points** (A higher score means good).
Ranking	• The **top three countries on the ranking are Norway, Ireland, and Denmark**, while Vietnam, China, and North Korea placed last. • In comparison to other South Asian nations, **India does poorly in the World Press Freedom Index, ranked 161.**





Need for free and independent media

- Free and independent media is a **pillar of democracy**, as it enables citizens to access reliable information, express their opinions and participate in public debate.
- Free and independent media is also a **catalyst for development**, as it exposes corruption, human rights violations, social injustices and environmental issues.

Way Forward

- **Repealing or amending laws** that can be used to harass and silence journalists, such as sedition, defamation and contempt of court.
- Respecting and **protecting the constitutional right to freedom of expression** and information for all citizens, including journalists.
- **Ensuring that journalists can work safely and securely** without facing threats or attacks from any quarter.
- **Promoting media literacy and ethics** among both journalists and audiences to combat disinformation and propaganda.
- **Supporting media pluralism and diversity** by encouraging independent and alternative voices and outlets.
- The Media must act in a Responsible and Independence manner; they need to promote Sincerity, Truthfulness, Accuracy, and Impartiality in their work. **News reporting must be factual and objective**.

1. 6 LOCAL RESERVATION IN JOBS

Context

- Once one of the most sought-after investment destinations, particularly for skill-driven manufacturing sectors like automobiles, **Haryana seems to have lost some of its sheen with its share of new**

investment projects in the country tripping to a six-year low of 1.06% in 2022-23, down sharply from almost 3% in the year before.

- Happening Haryana **slips as investments drop amid worries over law reserving jobs for locals.**

About the reservation law

Background	• **Haryana Assembly passed The Haryana State Employment of Local Candidates Bill, 2020, which provided for 75 per cent reservation for local people in private sector jobs offering a monthly salary of less than Rs 30,000.**
Coverage	• All companies, societies, trusts, limited liability partnership firms, partnership firms, and large individual employers are covered under the ambit of the Act.
Criteria for a local candidate	• According to the law, a candidate "who is domiciled in State of Haryana" is called a "local candidate" and shall be able to avail the benefit of this reservation while seeking employment in the private sector. • Such candidates are required to register themselves on a designated online portal to seek benefit of the reservation. Employers are required to make recruitments only through this portal.
Exemption	• Employer can claim exemption but after going through a long procedure and only if the government-appointed officers believes that the employer's request seeking exemption holds merit.

Other states that have passed Laws Reserving Jobs for Locals

- In Maharashtra it came to light from 1968 onwards and once again in the year 2008 while in Himachal Pradesh it was mooted over in the year 2004 and in Karnataka too it came into limelight in the years 2014, 2016 and 2019 and Andhra Pradesh too had a chance in 2019 along with Madhya Pradesh in the same year.

Constitutional provisions related to the reservation

Right to equality

- Under Article 14 of The Constitution of India every person is equal before the law irrespective of the place of his birth.
- Article 15 prohibits any kind of discrimination based on place of birth and fairly noted this article only allows positive discrimination that too for the unprivileged or the backward strata of the society.
- Article 16 of the Indian constitution goes on to states that no discrimination on the place of birth should be made in the matters of public employment.

Right to freedom

- As guaranteed by Article 19 of the Indian constitution that any citizen of India can move freely throughout the territory of India unless contrary to it there are reasonable restrictions.
- It also gives freedom to practice or carries out any profession.

Arguments in favour of such a reservation

- The perception that **outsiders and migrants are "taking away the jobs" meant for locals**. Thus, the need to actualise and redress the grievances of the local populace.
- In addition, there is a **need to preserve local languages and cultures** and not fall prey to the temptation to impose a single or a common language on all.
- Many experts often stress on the **need to assimilate into the local conditions** which means outsiders and migrants learning the local language and observing the local customs.
- There would be **fewer mishaps and accidents on the shop floor** of manufacturing firms since there are lesser chances of

communication gaps leading to such incidents.

- Hiring locals who are **familiar with the terrain and language is critical in customer facing roles** and hence, this is another reason why reserving jobs for locals makes sense.
- As suggested by the bill itself the ultimate rationale behind introducing it was to **curb unemployment.**
- With the presence of a higher employment level it would also **level up the morale of the citizens** and especially it would boost up the youths who are left unemployed without such incentives.
- Many people do want to get hold of jobs instead of practicing farming but due to the dearth of jobs in the private sector, they are not able to do so.
- **Migration is becoming a major concern** especially inter-state migration and somehow it has also contributed a lot to the surge in the slum population.

Arguments against such a reservation

- Introducing a policy of "sons of the soil" is an **infringement of the constitutional rights of employers**.
- Private sector jobs were **purely based on skills and analytical bent of mind**, and employees had a fundamental right to work in any part of India.
- The act forcing the employers to employ local candidates in private sector is the **violation of the federal structure framed by the Constitution of India**, whereby the government cannot act contrary to public interest and cannot benefit one class.
- Such a law **could trigger retaliatory restrictions in other states**, which would result in "complete chaos".
- There are chances that some of such jobs would be **done by people who might be less qualified** than those who could have got the job in normal circumstances.
- Also, reserving jobs for locals narrows the supply of eligible candidates and this can **result in poor and shoddy work.**
- Such measures can also result in the **vitiation of the workplace culture** since the workforce would be polarised and split into natives and outsiders planks.

Way Forward

- Government should **speed up with the policies of Vocal for locals**.
- The government should **focus on training the labor force** rather than converting the private sector into a public one partly.
- Governments and Other Stakeholders **must proceed cautiously and carefully.** It would be better to study the implications of such measures in a detailed and deep manner without hurrying through with them.
- Although domicile reservation may work out for short-term goals for the future ahead, it needs to put much more effort into the prosperity of the nation.

1. 7 ENFORCEMENT DIRECTORATE

Context

- The Centre informed the Supreme Court that Enforcement Directorate (ED) chief Sanjay Kumar Mishra's tenure will not continue in office beyond November 2023.The Supreme Court reserved the petitions challenging the "piecemeal" extensions granted to the person for judgment.

About Enforcement Directorate

Background	• **It was founded as** "Enforcement Unit" **within the Department of Economic Affairs of Ministry of Finance in 1956.** • **It was renamed as "Enforcement Directorate" in 1957.** • **It originally handled Exchange Control Laws violations under Foreign Exchange**

	Regulation Act, 1947. • **Originally, it had its** headquarters at Delhi **and two branches. Now the organisation has expanded to have 39 zones.** • **In 1960, ED's administrative control was transferred to the Department of Revenue.** • **Between 1973- 77, ED was under the administrative jurisdiction of the Department of Personnel and Administrative Reforms.** • **With the onset of the process of economic liberalization, FERA 1973, which was a regulatory law, was repealed and in its place,** Foreign Exchange Management Act, 1999 (FEMA) came into operation.
Objective	• When proceeds of crime (property/money) are generated, the best way to save that money is by parking it somewhere, so one is not answerable to anyone in the country. • Therefore, there was a need to control and prevent the laundering of money. The PMLA was brought in for this exact reason in 2002, but was enacted only in 2005.
Source of Power	Presently, the ED deals with four laws: **1. The Prevention of Money Laundering Act, 2002 (PMLA):** It is a criminal law to prevent money laundering and to provide for confiscation of property involved in money laundering. **2. The Foreign Exchange Management Act, 1999 (FEMA):** It is a civil law dealing with foreign exchange market in India. **3. The Fugitive Economic Offenders Act, 2018 (FEOA):** This law deals with Indian offenders who leave India to escape laws. This allows ED to attach properties of fugitive offenders who have escaped India. **4. Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA):**Under this law, the ED is empowered to sponsor cases of preventive detention with regard to contraventions of FEMA, according to its website. • Whenever any offence is registered by a local police station, which has generated proceeds of crime over and above ₹1 crore, the investigating police officer forwards the details to the ED. • The ED carries out search (property) and seizure (money/documents) after it has decided that the money has been laundered as per PMLA. • Under Section 50, the ED can also directly carry out search and seizure without calling the person for questioning. • If the person is arrested, the ED gets 60 days to file the prosecution complaint (chargesheet) as the punishment under PMLA doesn't go beyond seven years. • If no one is arrested and only the property is attached, then the prosecution complaint along with attachment order is to be submitted before the adjudicating authority within 60 days.

Working

- The Enforcement Directorate (ED) has been **at the helm of some of the most publicised investigations in recent years**, such as the National Herald case, the alleged scam in West Bengal school recruitment, and the INX Media case.
- Opposition has long-claimed that **these cases are the government's witch hunts of Opposition leaders for political benefit.**
- While CBI serves as the apex investigating police agency in the country, the **ED follows the money trail.**

- ED had approximately 2,**400 PMLA cases between 2005-19 and convictions were secured only in eight and investigation was pending in 898.**
- Of the cases under FEMA, ED had approximately 12,000 cases between 2005-19 and 6,944 were pending probe in September 2019.

Way Forward

- There must be a consensus between the authority and ED to maintain accountability and transparency during the investigation.
- The investigating process itself should not become a punishment.
- There must be periodic scrutiny over the working of the Enforcement Directorate by any independent agency or judiciary.
- To ensure that ED investigation remains apolitical and impartial, our country needs strong political will and an inter-party consensus.

1. 8 SPECIAL PROVISIONS FOR DELHI U/A 239AA

Context

- The Supreme Court of India has delivered a landmark verdict on the long-standing dispute between the Centre and the Delhi government over the control of services in the national capital.

Details

Background	• **The verdict came as a major relief for the Delhi government, which had been locked in a bitter power tussle with the Centre since 2015 when a Union Home Ministry notification gave the Lieutenant Governor of Delhi control over services.** • **In 2018, a five-judge constitution bench laid down the broad principles governing the relationship between Delhi and the Centre and ruled in favour of the Delhi government on most issues. However, the specific issue of services was left unresolved.** • **The issue was then referred to another three-judge bench, and eventually to a five-judge constitution bench, which has now settled it.**
Highlights	• The five-judge constitution bench unanimously ruled that the **elected government of Delhi has legislative and executive powers over administrative services, except in areas outside its jurisdiction.** • The court said that this decision would uphold the basic structure of federalism and democracy. • The court held that Article 239AA of the Constitution, **grants legislative power to the Delhi assembly concerning all matters enumerated in List II (State List) and List III (Concurrent List) of Schedule VII of the Constitution, except for entries 1 (public order), 2 (police) and 18 (land) of List II.** • The Bench observed that **"Services" is not an entry in any of these lists**, however, the court said that services are not an excluded subject, and therefore fall within the domain of the Delhi government. • The court said that the **Lieutenant Governor is bound by the aid and advice of the council of ministers of Delhi**, except in matters where he has to exercise his discretion. • The court clarified that its verdict does not affect the powers of the Union government over matters relating to national security, foreign affairs, defence and communications, which are outside the purview of Delhi's legislative assembly.

Evolution over the years

- In 1950, when the Constitution of India came into force, all the provinces of Chief Commissioners became Part C states.
- The **Delhi Laws Act, 1950** was brought into force to continue the enforcement of applicable erstwhile laws in the Chief Commissioner's Province in Part C states as well.
- With the passing of the **State Reorganisation Act, 1956**, the Indian states were limited to being "States and Union Territories", eliminating the previous system of Part A, B, C, and D States. Delhi, like other Union Territories, had an "Administrator" appointed by the President.
- For Delhi, keeping its governance in mind, a special act, the **Delhi Administration Act, 1966** was enacted. It provided Delhi with limited representative **government through metropolitan Council**, comprising of 56 elected members and five nominated members.
- To reconsider the structure allocated to Delhi, In 1975, a task force was set up in the form of the **Prabhu Committee**, which looked into the question of improving administration in Delhi.
- **1987 Balakrishnan Committee** was in favour of granting Delhi statehood.

Article 239AA (Special provisions with respect to Delhi)

- With the **69th Constitutional Amendment Act, 1991,** the recommendations of the **Balakrishnan Committee** were given effect, and **Article 239AA and Article 239AB** were inserted in the Constitution.
- With this, Delhi was constitutionally given the title of **"National Capital Territory of Delhi"** that would be administered by a Lieutenant Governor (LG) who was to be appointed by the President.
- A Legislative Assembly was to be constituted.
- A council of Ministers to aid and advise the Lt. Governor were also to be present, and only in certain cases in relation to subjects of land, police, and public order, the Lt. Governor was to not bound by the aid and advise of the Council of Ministers.
- Article 239AA(4) provided a mechanism for referring the matter to the President in case of a difference of opinion between the Lt. Governor and the Council of Ministers.

Key points

- The total number of seats in the Legislative Assembly, the number of seats reserved for Scheduled Castes, the division of the National Capital Territory into territorial **constituencies shall be regulated by law made by Parliament.**
- **Legislative Assembly shall have power to make laws** for the whole or any part of the National Capital Territory with respect to any of the matters enumerated in the State List or in the Concurrent List except matters with respect to Entries 1, 2 and 18 of the State List.
- If any provision of a law made by the Legislative Assembly with respect to any matter is repugnant to any provision of a law made by Parliament with respect to that matter, **the law made by Parliament shall prevail and the law made by the Legislative Assembly shall, to the extent of the repugnancy, be void**.
- There shall be a Council of Ministers consisting of not more than ten per cent of the total number of members in the Legislative Assembly.
- Chief Minister is to aid and advise the Lieutenant Governor except in so far as he is, by or under any law, required to act in his discretion.
    - Provided that in the case of difference of opinion between the Lieutenant Governor and his Ministers on any matter, the Lieutenant Governor shall refer it to the President for decision and act according to the decision given thereon by the President.
- The Chief Minister shall be appointed by the President and other Ministers shall be appointed by the President on the advice of the Chief Minister and the Ministers shall hold office during the pleasure of the President.

Government of National Capital Territory of Delhi (Amendment) Act 2021

- The Act amends the GNCT of Delhi Act, 1991, and re-defines Delhi Government as the Lieutenant Governor (LG).
- It curbs the Delhi Assembly's power to conduct its proceedings as per the rules of procedure made by it.
- It provides that the Rules made by the Delhi Legislative Assembly to regulate the procedure and conduct of business in the Assembly must be consistent with the Rules of Procedure and Conduct of Business in the Lok Sabha.
- It also provides that the opinion of the LG "*shall be obtained*" on all such matters as may be specified by the LG, before taking any executive action on decisions of the Council of Ministers of the Delhi Government.

Conclusion

- The verdict **restored the primacy of the elected government in matters of governance and policy-making.**
- The verdict also empowers the Delhi government to **take action against errant or non-cooperative officers.**
- The verdict also paves the way for **better coordination and cooperation between the Centre and the Delhi government** for the welfare of the people of Delhi.
- The Supreme Court has urged **both sides to work harmoniously and respect each other's authority**.
- It has also been said that any difference of opinion between them should be resolved through dialogue and consultation.

1. 9 MODEL PRISONS ACT 2023

Context

- The Centre has **finalised a comprehensive 'Model Prisons Act, 2023' to replace the pre-independence era 'Prisons Act, 1894'** which mainly focused on keeping criminals in custody and enforcing discipline and order in prisons, union home ministry said on Friday.

Details of the Model Act

Background	• **The current 'Prisons Act, 1894' is almost 130 years old.** • **It mainly focuses on keeping criminals in custody and enforcing discipline and order in prisons, with no provision for reform and rehabilitation.**
Objectives	• To **provide a comprehensive framework for prison administration** that **focuses on the reformation and rehabilitation** of inmates. • Integrates the use of technology in prison management, such as video conferencing, biometric identification, CCTV surveillance, etc.
Key Features	• It was **finalised by the Bureau of Police Research and Development (BPRD) in** consultation with states' prison authorities, correctional experts, and other stakeholders. • Security assessment and segregation of prisoners **based on their risk level and behaviour.** • **Individual sentence planning** for each prisoner to identify their needs and goals for rehabilitation. • **Grievance redressal mechanism for prisoners** to voice their complaints and seek remedies. • **Prison development board** to oversee the planning, development, and maintenance of prisons. • **Separate accommodation for women prisoners**, transgender inmates, and other

	vulnerable groups. • **Physical and mental well-being** of prisoners through health care, education, vocational training, counselling, etc. • **Reformation and rehabilitation** of inmates through various programmes and activities that help them develop skills, values, and attitudes for successful reintegration into society. • **Provision of parole, furlough, remission, and premature release** to prisoners to incentivise good conduct and facilitate their transition to freedom. • **Punishment for prisoners and jail staff** for use of prohibited items like mobile phones inside prison premises.

Benefits of the Model Act

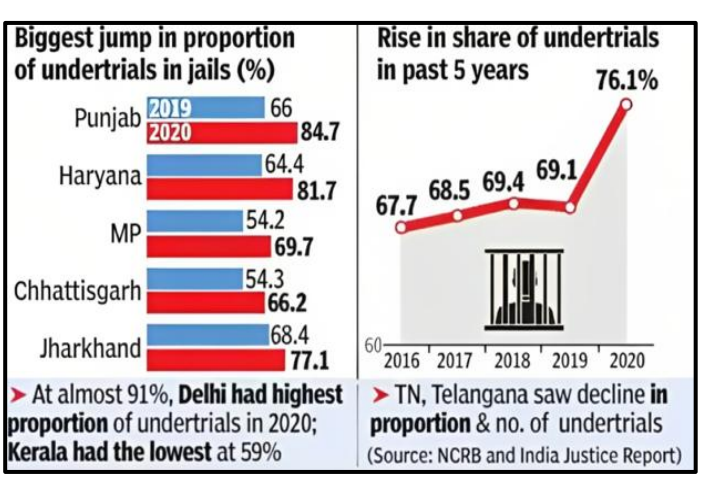
- **Prisons are a state subject**; this creates difficulty in having uniform prison management. The Union can only frame models for the states to incorporate and help in coordinating between states, encouraging them to adopt best practices.
- State governments and Union Territory Administrations can benefit by adopting it in their jurisdictions with such modifications as they may consider necessary.
- It will result in bringing more transparency and improvement in prison management and prisoners' administration across the country.

Need for Prison Reforms

- According to the **Prisons Statistics of India Report, 2021, around 5.54 lakh prisoners were imprisoned, while the entire capacity of Indian jails was approximately 4.25 lakh, representing a 130% occupancy rate.**
- The unsatisfactory living conditions affect every aspect of inmates' daily existence such as food, cleanliness, etc.
- Abuse of authority by the staff sometimes takes unfair advantage of the prisoner's dependency.
- Custodial deaths
- According to the latest available data released by the National Crime Records Bureau (NCRB) for 2020, **about 76% of all prisoners in India are under trials.**
- Availability of drugs, and access to mobile phones.
- **Understaffing and Underfunding:** 33% of the total requirement of Prison officials Still lies vacant. Inadequacy of female Staff.

Prison Reforms in Independent India

- **In 1960, All-India Jail Manual Committee prepared a Jail Manual. This forms the bedrock of Prison management in modern India.**
- In 1972, the Group appointed by the Union Home Minister recommended designing a **National Policy on Prisons.**
- **In 1983, Justice Mulla's committee reviewed the laws, rules, and regulations for protecting society and reforming offenders. The Committee suggested several reforms.**



- In 1987, The **Justice Krishna Iyer Committee** highlighted the difficulty of women prisoners and emphasized the need to induct more women into the Police Services and management to inculcate a gender-sensitive approach in prison management.
- **Supreme Court from time to time has taken a reformative approach in many significant judgments giving a boost to the discourse on prison reforms.**
- **One of the important themes of Union Budget 2023-24 is 'Help for Poor Prisoners.'**

Way forward

- The most important challenge that arises from both the human rights perspective and the internal security point of view is the **upgradation of infrastructure**.
- The Supreme Court **advised the centre that criminals sentenced to imprisonment for 6 months or a year should be allocated social service duties** only.
- **Allowing under trials on Personal bonds to leave jails.**
- The need of the hour is to design a National Policy on Prisons and ensure Proper implementation of the model jail manual.
- Conduct training and Sensitization Programmes for Senior Police officers of all Prisons.
- **Adopt Semi-open Prisons or open Prisons** (allow convicts to work outside the jail and earn a livelihood and return in the evening) system to reduce overcrowding.
- **Many important Committees have been set up to review the situation of prisons in India and suggest reforms**. However, the implementation of the reforms has been lax and the **necessary political will are required to bring change to the present system of prison management in India.**

1. 10 RIGHT TO DEFAULT BAIL

Context

- The Supreme Court of India's order, seeking to recall its own decision in Ritu Chhabaria vs Union of India upon the insistence of the Solicitor-General of India that central investigation agencies were 'facing difficulties', has caused concern among legal professionals.

Details

- In its interim order, a few days later, the **Supreme Court clarified that courts could grant default bail independent of and without relying on the Ritu Chhabaria judgment**.
- However, the Court's decision to suspend the rights of defendants in criminal cases would lead to further erosion of the constitutional rights of the accused and deviate from fundamental principles of criminal procedure.

What was RituChhabaria judgment?

Background

- Ritu Chhabaria's husband was booked in a case under the Prevention of Corruption Act in which he was not initially named.
- The CBI, which arrested him last year, named him as a suspect in supplementary charge sheets, but did not file the final charge sheet.
- Ritu Chhabaria's petition asked the top court to consider whether this practice of filing supplementary charge sheets defeats the right of accused to default bail under Section 167(2) of Code of Criminal Procedure (CrPC).

SC Verdict

- The verdict held that the **fundamental right of an accused to get default bail cannot be scuttled by probe agencies by filing supplementary charge sheets in cases where a probe is yet to be completed.**
- The bench held: "Without completing the investigation of a case, a charge sheet or prosecution complaint cannot be filed by an investigating agency only to deprive an

arrested accused of his right to default bail under Section 167(2) of the CrPC."

About Right to default bail

What it is?

- The right to statutory bail, often known as default bail, is **available to accused persons in cases when the investigating agency fails to complete its investigation within the stipulated time**.

Time limit

- Under Section 167(2) of the Code of Criminal Procedure (CrPC), the maximum time available to investigators is 60 or 90 days, depending on the seriousness of the offence.
- If the authorities are unable to complete the investigation within this time period, the accused can seek to be released from custody by applying for default bail under the first proviso to Section 167(2) of the CrPC.
- Notably, **the 'default' characteristic of this bail comes from the fact that the application is unrelated to the merits of the case, and is designed to prevent long-term detention of the accused.**

Previous Judgements

- The right to default bail has been characterised by the Court to be **flowing from Article 21 of the Constitution which guarantees the right to life and personal liberty**.
- In **Achpal vs State of Rajasthan (2018),** the Court held that an investigation report, albeit complete, if filed by an unauthorised investigating officer, would not bar the accused from availing default bail.
- In **S. Kasi vs State (2020),** the Court further stated that even during the COVID-19 pandemic, the investigating agencies would not be allowed any relaxation towards computing the maximum stipulated period of investigation, which could lead to additional detention of the accused.

41st report of Law Commission of India

- Under the older version of the CrPC, accused persons could be detained for a maximum of 15 days.
- Noting the abuse of this provision by the police, who kept the accused under extended periods of custody by misusing other provisions pertaining to trial, the **Law Commission recommended extending the period for which an accused could be detained in custody.**
- This found its way into the CrPC through an amendment in 1978.
- **To counter the powers granted to investigating authorities through extended detention, a provision for statutory bail was also introduced so as to ensure that the accused is not detained in custody for long periods of time.**

Concluding remarks

- This decision is particularly alarming because the **right to default bail could possibly be made subservient to concerns of 'difficulties' faced by investigative authorities.**
- What makes the matter even more serious is the **Supreme Court also agreed to defer decisions on default bail for accused persons across the country which would have been decided as per Ritu Chhabaria**.
- Given the serious implications of this judgment on the constitutional rights of the accused, it is imperative that the **three-judge Bench of the Supreme Court hearing this matter does not sacrifice procedural propriety at the altar of administrative convenience.**

1. 11 DIGITISATION OF LAND RECORDS

Context

- In India more than 50 per cent of the working population is engaged in agriculture. It is, therefore, all the more **important to develop a modern, comprehensive and transparent land record management system.**

Digital India Land Records Modernization Programme

About	• **The government revamped the existing National Land Record Modernization Programme (NLRMP) by bringing into force, the Digital India Land Records Modernization Programme (DILRMP) w.e.f April 1, 2016, as a** Central scheme **with 100 per cent funding.** • **The programme is slated to be fully implemented by March 2026.** • **The completion of basic digitisation of Record of Rights (RoRs) and Cadastral Maps and integration of the two, computerisation of Sub Registrar Offices (SROs), and integration of SROs and Revenue Offices by March 2024.**
Objective	**The DILRMP scheme was launched with a view to:** • attain commonalities that exist in the arena of land records in various States, • develop an integrated system which will provide real-time information on land, • optimise use of land resources, • assist in policy and planning, reduce land disputes, • check fraudulent/ *benami* transactions, • obviate the need for physical visits to Revenue/Registration offices and • enable sharing of information with various organisations/agencies.
Components	• **Identification number:** Unique Land Parcel Identification Number (ULPIN) or Bhu-Aadhaar number has been assigned for a land parcel, which is a 14 digit alphanumeric unique ID based on geo-coordinates. • **National Generic Document Registration System (NGDRS):** has been developed for addressing the diversity prevailing across States with regards to registration of deeds/documents. • **Languages:** Records of Rights have been transliterated in all the 22 scheduled languages mentioned in the Constitution to address the problem of linguistic barriers in land governance in the country.

Initiatives during Five Year Plans

- The First Plan focused on proper maintenance of land records as the basis for good administration, which aimed at achieving social justice through better implementation of rural development programmes.
- Same was reiterated in the Second and Third Plans.
- The Sixth Plan had foreseen the updating and completion of land records from 1980 to 1985.
- According to the Seventh Plan document, Land records form the base for all land reform measures and, therefore, regular periodic updating of land records is essential in all states.
- The Eight and Ninth Plan focused on the fulfilment of all the five-year principles of National Land Reform Policies.

Reasons for unclear land titles in India

Land titles are presumptive

- This implies that even bonafide property transactions may not always guarantee ownership as an earlier transfer of the title could be challenged.

Registration of property is not mandatory for all transactions

- Registration of property is not mandatory for all transaction under the Registration Act, 1908.

The cost of registering property is high

- For registering the transaction related to property, registration fee along with the stamp duty must be paid by the buyer.

- India used to have among the highest rates of the stamp duty in the world.

High Litigation

- A study of the World Bank suggests that **in India land-related disputes account for two-third of the pending cases in court.**
- A NITI Aayog paper suggests that land disputes on average take about 20 years to be resolved.

Benami Transactions

- A transaction where a property has been provided for or paid by one person but has been held by or transferred to another person.

Reforms undertaken to improve the system of land records

- The central government around 1988-89 started to computerize all land records under the **Computerization of Land Records Scheme.**
- In the year 2008, all these individual schemes were merged into a centrally sponsored scheme, the National Land Records Modernization Programme (NLRMP).
- Schemes of State governments:
  - **Bhoomi Project (Karnataka), 2000:** The necessary documents like the record of crops, rights and tenancy have been made available with the help of kiosks.
  - **Rajasthan Urban Land (Certification of Titles) Act, 2016:**state government is considered as a guarantor of land titles in the state and in case of defective title it will provide compensation.
  - The state of **Andhra Pradesh** has tied with a Swedish firm to use new **block chain technology** to prevent property fraud. In all other trades, the block chain will allow the participants in a distributed ledger to check on the ownership of a particular land parcel.

Concluding remarks

- Like every scheme this also suffers with its own drawbacks and issues.
- It is very hard to upgrade the system especially the administration from paper friendly to a whole new level of digitalization.
- Training the stake holders would not be an easy task and the scheme will suffer from behavioral, legal, administrative, techno and political attitudinal change and management hurdles.

1. 12 KUDUMBASHREE

Context

- The President of India inaugurated the silver jubilee celebrations of Kudumbashree, the largest self-help group network in the country.

About Kudumbashree

About	• **The Kerala State Poverty Eradication Mission was launched on 17th May 1998 inaugurated by the Prime Minister, Shri Atal Bihari Vajpayee.** • **Kudumbashree means "prosperity of the family" in Malayalam.**
Features	• The Mission aimed to **eradicate absolute poverty within a definite time frame of 10 years** under the leadership of Local Self Governments. • The Mission follows a process approach rather than a project approach. • Kudumbashree, a community organization of Neighborhood Groups (NHGs) of women in Kerala, differs from conventional programmes in that it **perceives poverty not just as the deprivation of money, but also as the deprivation of basic rights.** • Kudumbashree was conceived as a **joint programme of the Government of Kerala and**

	NABARD implemented through Community Development Societies (CDSs) of Poor Women. • Kudumbashree is formally registered as the "State Poverty Eradication Mission" (SPEM), a society registered under the Travancore Kochi Literary, Scientific and Charitable Societies Act 1955.
Objectives	• **Mission:** To eradicate absolute poverty in ten years through concerted community action under the leadership of local governments, by facilitating organization of the poor for combining self-help with demand-led convergence of available services and resources to tackle the multiple dimensions and manifestations of poverty, holistically. • **Vision:** Kudumbashree strives to develop the model of a micro finance led financial security process into a more comprehensive model of local economic development under the aegis of local governments.
Working	• Kudumbashree's approach is **based on three pillars: microfinance, entrepreneurship and social development.**
Achievements	• Kudumbashree has **mobilized more than 4.5 million women from below-poverty-line (BPL) families into 2.77 lakh NHGs across Kerala.** • It has generated a cumulative thrift of Rs. 5,000 crore and a cumulative credit of Rs. 25,000 crore among its members. • It has supported more than 2.5 lakh micro-enterprises with a total investment of Rs. 3,000 crore and an annual turnover of Rs. 6,000 crore. • It has created more than 10 lakh direct and indirect employment opportunities for its members. • It has ensured 100% financial inclusion and social security coverage for its members. • Kudumbashree has **reduced the incidence of poverty in Kerala by 26% points between 1998 and 2018.**

The Changing Role of Kudumbashree: From Microcredit Neighbourhood Groups to Crisis Managers to Entrepreneurs to Political Leaders

Microcredit Neighbourhood Groups

- When Kudumbashree was launched in 1998, one of the primary goals was poverty alleviation within 10 years that is by 2008. **The Kudumbashree has succeeded in eliminating poverty from Kerala to a large extent.**
    - Prior to the launch of PPC and Kudumbashree, the poverty ratio of rural and urban Kerala was 25.76 per cent and 24.59 per cent respectively.
    - In 2011-12, according to Rangarajan Committee on Poverty Estimation, the poverty ratio in Kerala had declined to 7.3 per cent (rural) and 5.3 per cent (urban) respectively.

Crisis Managers

- Kudumbashree members came forward to assist the flood affected families in the great floods of 2018 and 2019.
- During rescue and relief operations, **Kudumbashree members extended exemplary assistance in all possible ways** including providing temporary shelter for affected people, gathering food and other materials for relief camps.

Politicization of Kudumbashree

- The Kudumbashree can be termed as 'Made in Kerala' model but it is the brain child of LDF and since its inception it enjoyed the support of left-oriented organisations and the argument that Kudumbashree is not affiliated to any political party does not hold any ground.

- **The Kudumbashree being a state sponsored initiative is subjected to excess political and bureaucratic control and have been converted into 'party society'.**

Challenges

- Scaling up and sustaining the quality and impact of its interventions in a diverse and dynamic context.
- Enhancing the competitiveness and viability of its micro-enterprises in a globalized market.
- Strengthening the institutional capacity and governance of its three-tier structures at various levels.
- Addressing the emerging issues and needs of its members such as climate change adaptation, digital literacy, social inclusion, etc.
- Building strategic partnerships and alliances with various stakeholders such as government agencies, civil society organizations, private sector entities, etc.

Steps need to be taken

- Expanding its outreach and coverage to include more poor and marginalized sections of society such as tribal communities, urban slums dwellers, migrant workers, etc.
- Diversifying its portfolio of products and services to cater to the changing needs and preferences of its customers.
- Adopting innovative technologies and practices to improve its efficiency and effectiveness.
- Enhancing its research and advocacy capabilities to influence policies and programs that affect its members.
- Developing a robust monitoring and evaluation system to measure its outcomes and impacts.
- Celebrating its achievements and sharing its learnings with other states and countries that aspire to replicate its model.

Concluding Remarks

- While on the one hand, Kudumbashree stands as a champion for women empowerment, the alarming increases in atrocities against women indicate that Kudumbashree has to come up with strong movements and decisions to eliminate these evils.
- The Kudumbashree has to emerge as a strong counter-culture force to eliminate the crimes and evils committed against women.
- The Kudumbashree should take re-birth to free itself from the clutches of political hegemony and patriarchal and male chauvinistic culture and only then it can survive in the years to come.
- Kerala has often been described as a 'gender paradox' and coming out of this 'gender paradox' is going to be a litmus test for the Kudumbashree in the coming years.

1. 13 SUPREME COURT ON JALLIKATTU

Context

- Jallikattu, the traditional rural sport involving bulls, has received judicial approval.

Details

- A Constitution Bench of the Supreme Court has ruled that the amendment made in 2017 by the Tamil Nadu Assembly to the Prevention of Cruelty to Animals Act, 1960, facilitating the smooth conduct of the sport with stringent regulations, is valid.
- The verdict is also applicable to other sports **involving bovines such as Kambala (buffalo race) in Karnataka and bullock-cart racing in Maharashtra.**

Jallikattu

About	• **Jallikattu is a bull-taming sport that has traditionally been part of the festival of Pongal in Tamil Nadu.** • **The sport involves releasing a running bull into a crowd of people.** • **Participants attempt to grab the bull's hump and ride it for as long as possible, in an attempt to stop it.** • **It is a violent sport, and there is only one winner, man or bull.**
History	• Jallikattu has been known to **be practiced during the Tamil classical period (400-100 BC).** • It was common among the Ayar people who lived in the 'Mullai' geographical division of the ancient Tamil country. • A seal from the Indus Valley Civilization depicting the practice is preserved in the National Museum, New Delhi. • A cave painting in white kaolin discovered near Madurai depicting a lone man trying to control a bull is estimated to be about 1,500 years old.
Controversy	• In recent times, Jallikattu has attracted protests from animal rights organizations like People for the Ethical Treatment of Animals (PETA) and Federation of India Animal Protection Agencies (FIAPA). • **Over 200 people - both tamers and spectators - have lost their lives in the last two decades.**
Judicial Rulings	• In 2006, a **Madras High Court** judge, when a petition for permission to hold a *rekla* race (a kind of bullock cart race) came up before her, **barred the conduct of any such event including *jallikattu*.** • On appeal, a **Division Bench set aside the order**. It favoured regulation over an outright ban. • The State Assembly adopted the **Tamil Nadu Regulation of Jallikattu Act in 2009 to strengthen its case for holding the event by adopting regulations and safety measures**. • In July 2011, the Union Ministry of Environment issued a notification **including 'bulls' in a list of animals that are prohibited from being exhibited or trained for any performance**. • In a landmark verdict that established a rights jurisprudence for animals under the Constitution, the **Supreme Court imposed a ban on *jallikattu* and similar sports involving animals in 2014**.

KAMBALA

- **Kambala is an annual buffalo race held in Karnataka.**
- **Traditionally, it is sponsored by local Tuluva landlords and households in the coastal districts of Udupi of Karnataka and Kasaragod of Kerala.**
- **The Kambala season generally starts in November and lasts until March.**
- **Traditional Kambala was non-competitive, and the buffalo pair was run one by one. In modern Kambala, the contest takes place between two pairs of buffaloes.**

Supreme Court observation

- The Court in a unanimous decision by a five-judge **constitution bench has overruled its previous judgment of 2014 that had banned these sports on the grounds of cruelty to animals.**
- The court observed that the amendments introduced by the three states had received presidential assent and had incorporated additional safeguards to minimise harm to the animals.

- The court noted that **these sports have been practised for centuries and are part of the cultural heritage of the people.**
- The court said that it was not its role to determine whether these sports are integral to the culture or not, but to examine whether they agree with the constitutional provisions and the central legislation.
- The court held that the amendments were not colourable legislation or an attempt to override its earlier judgment, but valid exercises of legislative power by the states.
- The court **also directed the district authorities to ensure strict compliance with the rules and regulations governing these sports.**

PREVENTION OF CRUELTY TO ANIMALS ACT, 1960

- **The legislative intent of the Act is to "prevent the infliction of unnecessary pain or suffering on animals".**
- **The Animal Welfare Board of India (AWBI) was established in 1962 under Section 4 of the Act.**
- **This Act provides for punishment for causing unnecessary cruelty and suffering to animals. The Act defines animals and different forms of animals.**
- **Discusses different forms of cruelty, exceptions, and killing of a suffering animal in case any cruelty has been committed against it, so as to relieve it from further suffering.**
- **Provides the guidelines relating to experimentation on animals for scientific purposes.**

Conclusion

- The verdict has opened a new chapter in the legal and social debate on these sports, which have been a source of pride and passion for many.
- The judgement is significant as it balances the interests of animal welfare and cultural rights, and respects the legislative competence of the states to make laws on matters relating to their culture and traditions.

1. 14 CENSUS

Context

- An annual report by the UN Population Fund revealed that India was all set to become the world's most populous country by the middle of this year. It estimated that India's population would be 1,428 million (or 142.8 crore) by that time.
- India would have had a far more accurate number for its population had the 2021 Census exercise been carried out.

Details

- The **2021 Census had to be postponed because of the Covid pandemic**, the first time in the 150-year history of India's census operations that the exercise was not completed on time.
- As of now, there is no clarity on the timeline.
- The enumeration work has traditionally been done in February of the Census year, and if the same practice is to be followed, the earliest it can now be done is in February next year.

About Census in India

- **Census in India was started in 1872 under British Viceroy Lord Mayo, but the first complete census was taken in 1881 under Lord Ripon.**
- **Since 1881, Census has been undertaken every 10 years; in 2011 the Census of India was conducted for the 15th time.**
- **Census of India conducted by the Registrar General and Census Commissioner of India under the Ministry of Home Affairs.**

- All the censuses since 1951 were conducted under the 1948 Census of India Act. The last census was held in 2011.

Constitutional and Legal references

- A Census **is Constitutionally mandated in India**.
- There are repeated references to the Census exercise in the Constitution in the context of reorganisation of constituencies for Parliament and state Assemblies.
- But the Constitution **does not say when the Census has to be carried out, or what the frequency of this exercise should be**.
- The **Census of India Act of 1948, which provides the legal framework for carrying out the Census, also does not mention its timing or periodicity.**
- There is **no Constitutional or legal requirement that a Census has to be done every 10 years**.
- However, this exercise has been carried out in the first year of every decade, without fail, since 1881.
- Most other countries also follow the 10-year cycle for their Census. There are countries like Australia that do it every five years.

Census schedule

- The Census is essentially a **two-step process involving a house-listing and numbering exercise followed by the actual population enumeration.**
- The house-listing and numbering takes place in the middle of the year prior to the Census year.
- The population enumeration, as mentioned earlier, happens in two to three weeks of February.
- The **numbers revealed by the Census represent the population of India as on the stroke of midnight on March 1 in the Census year**.
- To account for the births and deaths that might have happened during the enumeration period in February, the enumerators go back to the households in the first week of March to carry out revisions.

2021 census

- A bulk of the work for the 2021 Census was completed before Covid-19 hit the country.
- It was **initially proposed to be an entirely digital exercise**, with all the information being fed into a mobile app by the enumerators.
- However, owing to 'practical difficulties', it was later decided to **conduct it in 'mix mode',** using either the mobile app or the traditional paper forms.
- What has been inexplicable, however, is the **failure to resume the Census exercise in 2023**, if not in 2022 itself.
- Most normal activities had been restored by the middle of 2022 after the dwindling of the third wave of the pandemic.
- The **delay in conducting the census has serious and wide-ranging consequences for India's development and governance**. Some of the potential impacts are:
- Loss of reliable and updated data
- Distortion of various social and economic indicators
- Difficulty in monitoring and evaluating the progress
- Loss of credibility and reputation of India's statistical system

Census data

- Census data are **essential for understanding the characteristics and needs of a population**.
- They provide information on various aspects of people's lives, such as age, sex, education, occupation, income, health, housing, and more. Census data
- They **are used by governments, researchers, businesses, and civil society organizations for planning, policymaking, and resource allocation**.
- They can also help identify and address social and economic inequalities, monitor progress towards development goals, and protect human rights.

Way Forward

- **Leveraging new technology tools platforms** to improve census data collection dissemination analysis use such as artificial intelligence big data cloud computing geospatial information systems etc.

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- **Integrating census data with other types of data** such as surveys census administrative records etc. to create richer more comprehensive more granular more dynamic datasets.
- Expanding the scope coverage content depth of census data to capture new emerging dimensions of the population such as migration diversity disability etc.
- **Engaging with a wider range of stakeholders partners collaborators** to co-produce co-disseminate co-analyze co-use census data such as civil society organizations private sector media academia etc.
- **Innovating new ways of communicating and visualizing storytelling with census data** to make them more appealing understandable actionable for different audiences.

1. 16 PROMULGATION OF ORDINANCES

Context

- The central government promulgated an Ordinance that undid the unanimous verdict of a five-judge Constitution Bench of the Supreme Court, which gave the government of Delhi control over the transfer and posting of officials in the National Capital Territory (NCT), except with regard to public order, police, and land.

Ordinance in Constitution

Article 123

- Under **Article 123** of the Constitution, "if at any time, except when both Houses of Parliament are in session, the President is satisfied that circumstances exist which render it necessary for him to take immediate action, he may promulgate such Ordinances as the circumstances appear to him to require."
- An Ordinance "**shall have the same force and effect as an Act of Parliament**".
- But the **government is required to bring an Ordinance before Parliament for ratification** — and failure to do so will lead to its lapsing "at the expiration of six weeks from the reassembly of Parliament".
- The Ordinance may lapse earlier if the President withdraws it — or if both Houses pass resolutions disapproving it.
- Also, if an **Ordinance makes a law that Parliament is not competent to enact under the Constitution, it shall be considered void.**

Role of COM

- Since the President acts on the advice of the Council of Ministers, **it is in effect the government that decides to bring the Ordinance.**
- The President may return the recommendation of the Cabinet once if she feels it warrants reconsideration; if it is sent back (with or without reconsideration), she has to promulgate it.

Article 213

- Article 213 deals with the broadly **analogous powers of the Governor to promulgate/ withdraw an Ordinance when the state legislature is not in session.**
- An Ordinance is valid for six weeks, or 42 days, from the date on which the next session starts.
- If the two Houses start their sessions on different dates, the later date will be considered, say the explanations in Articles 123 and 213.

Safeguards

- The Constitution asserts that an ordinance may only be passed if either of the houses is in recess, or when the state legislature is not in session.
- They can only be made about subjects on which the Parliament has the power to make laws.
- It is also important to ensure that the ordinance does not remove or retract any of the Fundamental Rights the nation provides its citizens.
- The process of the ordinance prescribes that the ordinance be passed by both houses of Parliament/ State Legislature within six weeks of its re-assembly.

- All acts done and completed under an unapproved ordinance will lapse.
- Further, if an ordinance is sought to be removed, the reason for doing that shall also have to be produced by way of a statement. It should also include the circumstances surrounding the reason.

Repromulgation of Ordinance

- If, for whatever reason, an Ordinance lapses, the **only option for the government is to reissue or repromulgate it**.

SC cases on repromulgation

CASE	RULING
Dr D C Wadhwa and Ors v. State of Bihar and Ors, 1986.	The court declared the actions in that case to be "a fraud on constitutional power".
RC Cooper v. Union of India, 1970	If an ordinance is passed in a circumstance that failed to pass as one requiring 'immediate action', the same could be brought to the court of law to be tested for its constitutionality.
Krishna Kumar Singh and Another v. State of Bihar, 2017	The legislation should normally be done by the legislature, and the Governor's power to issue an Ordinance is in the nature of an emergency power. Repeated re-promulgations without bringing the Ordinance to the legislature would usurp the legislature's function, and will be unconstitutional.

Advantages

- Ordinances are primarily just laws that are passed by the President of India, **in times of need and urgency, to combat unforeseen circumstances- like the covid pandemic.**
- The ordinance making power entrusted upon the President and the Governor is viewed to be mandatory by many jurists and critics.
- They enable the government to **take immediate legislative action in desperate times**.
- The provision of Ordinance has often come in handy when the time for it has arrived, with the most recent one being The Epidemic Act 1897 (Amendment) Act Ordinance, 2020.
  - In this ordinance, President promulgated that it shall be a legal offence to attack healthcare workers.

Disadvantages

- The ordinance making power is at the disposal of the President/ the Governor. This **widens their scope to misuse it at times and might seem unjust to the others.**
- It has been noticed that ordinance making is not treated as the last resort in India. In fact, post-independence **as many as 637 ordinances have been passed in India**.
- The Supreme Court has called the **re-promulgation of an ordinance to be a 'fraud' on the Constitution**.
- Since it is the duty of the legislature to make laws, the **power of the executive to make ordinances stands against the principle of Separation of Powers**.

Conclusion

- To make sure that the power isn't misused by the ones who bear it, the Supreme Court limited the government's power to issue ordinances.
- It must be made sure that the powers, where they overlap, must not be employed for corrupt purposes.
- The usage of the power is to employ it in unforeseen circumstances that require urgent steps.
- To use it to avoid deliberations and confrontations is not just unethical, but also immoral.
- Certainly, the satisfaction of the President is not immune from judicial review.

1. 17 DISTRICT JUDICIARY

Context

- The Supreme Court has held that the **independence of district judiciary is part of the basic structure of the Constitution** and judicial independence from the executive and the legislature requires the judiciary to have a say in matters of finances.

Details

- The judgment, based on a **petition filed by the All India Judges Association**, gave a series of directions to amend the service rules of the district judiciary and for payment of arrears of pension, additional pension, gratuity and other retiral benefits.
- The directions were based on the recommendations made in the report of the court-appointed Second National Judicial Pay Commission headed by Justice P.V. Reddi (retired) as its chairman with senior advocate R. Basant as its member.

Crucial role of district judiciary

- On a single day, the district judiciary **handled nearly 11.3 lakh cases.**
- Even during the period of the pandemic, the **district judiciary was efficient and undertook its functions to ensure that justice was delivered in a timely manner**.
- The district judiciary was the backbone of the judicial system.

Basic Structure doctrine

About	**In the Kesavananda Bharati case (1973)**, a 13-judge constitutional bench held by a 7-6 majority that **Parliament can amend any provision of the Constitution, including fundamental rights, so long as the basic structure of the Constitution remains the same.**
Present Status	• The Supreme Court is yet to define or clarify what constitutes the 'basic structure' of the Constitution. • From the various Supreme court judgements, **the following have emerged as the elements of the 'basic structure of the constitution:** o Supremacy of the Constitution. o Sovereign, democratic and republican nature of the Indian polity. o Secular character of the Constitution. o Separation of powers between the legislature, the executive and the judiciary. o Federal character of the Constitution. o Unity and integrity of the nation. o Welfare state (socio-economic justice). o Judicial review. o Freedom and dignity of the individual. o Parliamentary system. o The rule of law. o Harmony and balance between Fundamental Rights and Directive Principles. o Principle of equality. o Free and fair elections. o Independence of Judiciary. o Limited power of Parliament to amend the Constitution. o Effective access to justice. o Principles (or essence) underlying fundamental rights. o Powers of the Supreme Court under Articles 32, 136, 141 and 142. o Powers of the High Court under Articles 226 and 227.

Subordinate Courts in India

- **Chapter VI of the Indian constitution** lays down the provisions for subordinate courts.
- This chapter contains **Articles 233-237 of the Indian Constitution**. Our country has a federal form of government with the separation of powers. There are three

Provisions

- **Article 233 lays down the provisions for the appointment of district-level judges**.
- The governor of the state, in consultation with the advice of the High court of the same state, would be vested with the powers of appointing a District Judge.
- A person can only be appointed as a District Judge if he has been an advocate for not less than seven years except in the cases when he is already in service of the central or state government.
- A **District Judge is a vast terminology** and this has been rightly explained by Article 236 of the Indian Constitution.
- The Indian constitution also lays down that the **control over the district courts and other subordinate courts would be exercised by the High Court** of that particular state in which the subordinate court is located.
    - All the decisions regarding appointment, promotion, grants, leave etc. will be taken by the High court only.
    - Also, vide the twentieth Amendment of 1966, the provisions for the validation of such appointments was laid down.

Hierarchy of the District Level Judges

- District level courts are divided into civil and criminal courts.
- Under civil courts, we have the **District Courts as the highest court**, with the District Judge as the highest authority.
    - Then we have the **sub-courts with a senior civil judge acting as the presiding officer**.
    - The sub-courts are followed by the **Principal Junior Civil Judge Court** presided by a Principal Junior Civil Judge and the **Munsif Court is the lowest level Court** with the Munsif or the Junior Civil Judge acting as the Presiding Officer.
- For criminal jurisdiction, we have the **Sessions Court with the sessions judge at the highest level**.
    - The Sessions Court is followed by the Judicial Magistrate (First Class) Court with the Chief Judicial Magistrate acting as the judge and at the lowest level we have the Judicial Magistrate (Second Class) Court.
- There are also metropolitan courts in the metro areas like Delhi wherein the hierarchy is a bit different from the district level.

Role and Functions

- The district-level courts and judges act as the **foundation of the Indian Judiciary** and serve an important function.
- **They are the ones who originally hear the case first.** Whenever there is a civil or criminal wrong, these are the courts that are first approached, unless a person is going under the writ jurisdiction of the High Courts or the Supreme Court.
- They **play an important role in the application and interpretation of laws**. They act as the safeguard of the constitution and ensure that people live up to the spirit of the constitution.

Challenges faced by district level judiciary

- There are **numerous vacancies** at the district courts. They remain the most ignored courts.
- The **facilities at a district-level court are not adequate**. They are far behind the higher level courts when it comes to infrastructure. Digitalization has not been implemented properly.
- There is an **inadequacy of support staff** like clerks, scribes and other officials. Due to this, the office work cannot be conducted adequately and there is a pendency of cases.
- The lower level judges become so overwhelmed with the cases at hand that they do not acquire knowledge of the recent changes in the law. It is necessary to provide them with proper training and workshops.
- According to a study conducted by Vidhi: Centre for Law and Legal Policy, there are **only 27.6 percent of women in the lower judiciary.**

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Conclusion

- Amid discussions concerning the tribunals, High Courts and the Supreme Court, the District Courts get sidelined.
- We must not forget that **they are the foundation of the legal system**; one has to face prosecution here before appealing to a higher court.
- Owing to the importance of these courts and judges, it is **our responsibility to improve the local judiciary and by resolving all the shortcomings, the same can easily be achieved.**

1. 18 GLOBAL ALLIANCE OF NATIONAL HUMAN RIGHTS INSTITUTIONS

Context

- The credibility and independence of the National Human Rights Commission of India have been questioned by the Global Alliance of National Human Rights Institutions (GANHRI), the international body that accredits NHRIs based on their compliance with the UN-mandated Paris Principles.

Details

- The NHRC-India has been **accredited with 'A status' by GANHRI since 1999**, which means that it is fully compliant with the Paris Principles and can participate independently in the UN Human Rights Council and other UN mechanisms.
- However, **in 2016, the NHRC-India's accreditation was deferred** due to some concerns raised by GANHRI's Sub-Committee on Accreditation (SCA).
- The **credibility and independence of the NHRC have been questioned by the Global Alliance of National Human Rights Institutions (GANHRI).**

What are the Paris Principles?

- The Paris Principles are a set of standards that define the role, composition, status and functions of NHRIs.

GANHRI
Global Alliance of National Human Rights Institutions

About
It is a global network of National Human Rights institutions (NHRIs) that aims to promote and protect human rights around the world.
GANHRI is celebrating 30 years of the Paris Principles and 75 years of the Universal Declaration of Human Rights in 2023. It invites all stakeholders to join its efforts to advance human rights for all.
GANHRI has a head office in Geneva and a governance structure that represents NHRIs from Africa, the Americas, Asia Pacific and Europe.

History
GANHRI was established in 1993 as the International Coordinating Committee of NHRIs (ICC) and changed its name in 2016.
It has more than 110 members from all regions, which are accredited according to their compliance with the Paris Principles.
The Paris Principles are a set of international standards that define the role, composition, status and functions of NHRIs.

Role
They are independent bodies that monitor report and advise on human rights issues in their respective countries.
They also cooperate with regional and international human rights mechanisms, such as the United Nations Human Rights Council and the Universal Periodic Review.

National Human Rights Commission of India (NHRC)

About	• It is a **statutory body established in 1993 under the Protection of Human Rights Act.**
Role	• It is mandated to protect and promote human rights in India, which include civil, political, economic, social and cultural rights.

	• It has various functions and powers, such as conducting inquiries, intervening in court proceedings, reviewing laws and policies, spreading human rights awareness and education, and cooperating with other national and international human rights institutions
Composition	• The commission is a multi-member body consisting of a **chairman and four members**. • The **chairman should be a retired chief justice of India**, and members should be serving or retired judges of the Supreme Court, a serving or retired chief justice of a high court and two persons having knowledge or practical experience concerning human rights. • In addition to these full-time members, the commission also has **4 ex-officio members:** The chairman of the National Commission for Minorities, The National Commission for SCs, The National Commission for STs and The National Commission for Women. • The chairman and members are appointed by the president on the **recommendations of a 6-member committee consisting of** Prime Minister is the head, Speaker of the Lok Sabha, Deputy Chairman of the Rajya Sabha, Leaders of the Opposition in both the Houses of Parliament and Central home minister. • The **chairman and members hold office for a term of five years or until they attain the age of 70 years,** whichever is earlier. • After the tenure, the chairman and members are not eligible for further employment under the Central or state government. • The President can also **remove the chairman or any member on the ground of proven misbehaviour or incapacity.**

Challenges for NHRC as per GANHRI

- The **selection and appointment process** of the NHRC members is not transparent, inclusive and participatory, and does not ensure pluralism and diversity.
- The NHRC **does not have adequate financial and administrative autonomy** from the government, and its budget is not sufficient to carry out its functions effectively.
- The NHRC **does not have full jurisdiction over all human rights issues**, such as those related to the armed forces, and faces challenges in accessing places of detention and victims of human rights violations.
- The NHRC **does not have enough powers to enforce its recommendations** and orders and faces delays and non-compliance from the authorities.
- The NHRC does not engage sufficiently with other NHRIs, civil society organizations, international human rights mechanisms and the public.

Way Forward

- GANHRI has recommended that the NHRC should take urgent steps to address these gaps and challenges and to align itself with the Paris Principles.
- GANHRI has also urged the government of India to amend the Protection of Human Rights Act to ensure that the NHRC is fully compliant with international standards.
- **Appointments to the NHRC need to be made from a wider pool of candidates**.
- The **expert members criteria needs clear definition** and well-defined benchmarks so as to resolve the allegation that it is a post-retirement security for bureaucrats.
- **Political representatives should be strictly limited** in their engagement as members of the NHRC so as to ensure independence.
- There is a need for the NHRC to constitute and maintain an **independent cadre of officials** that will be able to develop expertise in human rights violation investigation.

- The PHRA, 1993 needs to be amended to include **mandatory time frame for action taken** and response formulation by the Government at the Centre and in the states on NHRC recommendations.
- The **NHRC should be granted contempt powers** so as to ensure effective implementation of its recommendations.

1. 19 FORUM SHOPPING

Context

- I will not permit forum shopping, said Chief Justice of India said to a litigant appearing before him.

What is practice of forum shopping?

- When **litigants or lawyers attempt to deliberately move their case to a particular judge or Court where they think the judgment could be more favourable**, they are said to be "forum shopping."
- For example, one could directly approach the Supreme Court via a public interest litigation case instead of the concerned High Court because the issue could get more eyeballs.

Criticism

- Judges have cited the **injustice caused to the other party in the case and overburdening some courts over others and interfering with judicial process.**
- Even the US and UK courts have criticised the practice of forum shopping as something to be avoided or prohibited.

What is the Supreme Court's view on this practice?

CASE	RULING
'Chetak Construction Ltd. vs. Om Prakash', 1988	• A litigant cannot be permitted choice of the forum," and that every attempt at forum shopping "must be crushed with a heavy hand."
'Union of India & Ors. vs. Cipla Ltd.', 2017	• Laid down a **"functional test"** to be adopted for forum shopping. • What has to be seen is whether there is any functional similarity in the proceedings between one court and another or whether there is some sort of subterfuge on the part of a litigant.
'Vijay Kumar Ghai vs. State of W.B.', 2022	• Termed forum shopping as a "disreputable practise by the courts" that "has no sanction and paramountcy in law".

What is Bench Hunting?

- Bench hunting refers to **petitioners managing to get their cases heard by a particular judge or court to ensure a favourable order**.
- Relying on the 2017 SC ruling in **'Kamini Jaiswal vs. Union of India'**, the court said that "unscrupulous elements" are always on the hunt to find a court or forum of their choice but are not permitted to do so by law.

Forum Shopping in International Relations

- In international relations (IR) theory, the term 'forum shopping' describes the **situation where a state is member of two or more different international- or regional organizations which deal with the same policy area** so the state can choose the forum for addressing a certain issue which serves its interests best.
- This is particular important in international trade and in security issues.

Efforts to discourage forum shopping

US

- Under the **Erie doctrine**, a federal court hearing a case under the diversity jurisdiction must apply the law of the state in which the court is sitting.

Philippines

- The law in the Philippines explicitly prohibits the filing of more than one case for the same cause of action in any forum or court of law.

Way Forward

Forum Non-conveniens Principle

- Most common law countries use the "forum non-conveniens" principle to prevent forum shopping, which **gives the court discretionary powers to refuse to exercise its jurisdiction over a matter** where another court, or forum, may more conveniently hear a case.
- Using this power, the court can dismiss a case in the interests of justice and the parties while allocating it to the appropriate bench.

1. 20 SHORT ARTICLES

Survey of OBSs in Odisha

Context

- Odisha has initiated a survey of the Other Backward Classes (OBC) castes in the state.

Background

- The survey aims to collect socio-economic data on the OBC population and assess their educational and employment status.
- Caste is a social hierarchy that has existed in India for thousands of years. It affects various aspects of people's lives, such as their occupation, education, marriage and social status.
- **The last caste OBC census was conducted in 1931 by the British colonial government**.
- The Mandal Commission, which recommended 27% reservation for OBCs in 1990, estimated their population at 52% based on secondary sources.
- **The Socio-Economic and Caste Census 2011 (SECC) was conducted for the 2011 Census of India.**
- **The Justice Rohini committee was appointed in 2017 to look into the sub-categorization of the OBC communities;** however, in the absence of data, there can be no data bank or any proper sub-categorization.

Arguments

In Favour	Against
• **It will have implications for the political representation and mobilisation of different castes in India.**	• It will have far-reaching consequences for the structure and dynamics of Indian society.
• **It will provide a basis for revising the delimitation of constituencies and seats reserved for SCs and STs in Parliament and state assemblies.**	• **Defining and identifying the criteria** for determining who belongs to which caste and sub-caste will be a challenge.
• **It will help in identifying the exact proportion of the OBC population and their sub-categories will enable a more rational and**	• **Ensuring the accuracy and reliability** of the data collected is a challenge.

equitable distribution of reservation benefits among them.	
• It will help in designing more effective and targeted policies **and programmes for the upliftment and empowerment of the backward and oppressed castes.**	• **Dealing with the potential backlash** and resistance from some sections of society, especially the upper castes, who may oppose or question the validity and necessity of a caste census.
	• **Addressing the ethical and moral issues** involved in categorising and labelling people based on their birth-based identity, may reinforce or perpetuate caste stereotypes and prejudices.

Coal Mines (Nationalisation) Act, 1973

Context

- The Supreme Court is hearing a case that challenges the monopoly of Coal India Ltd (CIL) in the coal sector.

Details

- CIL has defended itself by claiming that it is exempt from the competition laws because it is carrying out the functions of the state under the Coal Mines (Nationalisation) Act 1973.
- This Act nationalised the coal industry and gave CIL the exclusive right to produce and sell coal in India.

Coal Mines (Nationalisation) Act 1973

Background	**The Coal Mines (Nationalisation) Act, 1973 was enacted to provide for the acquisition and transfer of the right, title and interest of the owners in respect of coal mines specified in the Schedule.** **The Schedule contained a list of about 711 coal mines located in different parts of the country.**
Objective	To reorganise and reconstruct coal mines to ensure the rational, coordinated and scientific development and utilisation of coal resources consistent with the growing requirements of the country.
Provisions	Under the Act, **coal mining was exclusively reserved for the public sector, except for two exceptions:** • Captive mining by private companies engaged in the production of iron and steel, power, washing of coal or other end uses notified by the government from time to time. • Sub-lease for coal mining to private parties in isolated small pockets not amenable to economic development and not requiring rail transport. **Appointment of a Commissioner of Payments** to deal with claims arising out of transfer of ownership, a **Custodian** to take over or carry on the management of a coal mine, and a **Coal Mines Tribunal** to adjudicate disputes relating to coal mines.

Prevention of Money-Laundering Act

Context

- Finance Ministry brought in practicing chartered accountants, company secretaries, and cost and works accountants carrying out financial transactions on behalf of their clients into the ambit of the money laundering law.

What are the changes being done under the PMLA?

- **Incorporation of more disclosures for non-governmental organisations** by reporting entities like financial institutions, banking companies or intermediaries.
- It also **defined "politically exposed persons" (PEPs)** under PMLA as individuals who have been "entrusted with prominent public functions by a foreign country.
- Government **widened the list of non-banking reporting entities** to allow 22 financial entities to verify the identity of their customers via Aadhaar under the ambit of the money laundering law.

Benefits

- The amendments are aimed to **plug loopholes ahead of India's proposed assessment** later this year under the Financial Action Task Force.
- The amendments are **expected to aid investigative agencies further in their probe** against dubious transactions involving shell companies and money laundering.

Challenges

- The changes have given rise to concerns amongst financial professionals that they could possibly not just **face a penalty for non-compliance but could also have potential run-ins with investigative agencies.**
- The PMLA Act is **very stringent and compliance is very onerous.**
- The **conviction rate in PMLA is very low** but the entire process is extremely difficult to go through.

About Prevention of Money Laundering Act, 2002

Background	**Prevention of Money Laundering Act, 2002 was** passed by the Indian parliament to prevent money laundering and to provide for the confiscation of property derived from money laundering. **PMLA came into effect on 1st July 2005.**
Penalty	The Act prescribes that any person found guilty of money laundering shall be jailed from 3 years to 7 years; the **maximum punishment may extend to 10 years instead of 7 years.**
Bodies	The **Director** can attach property believed to be "proceeds of crime" for 180 days. The **Adjudicating Authority** is the authority appointed by the central government to exercise jurisdiction, powers and authority conferred under PMLA. An **Appellate Tribunal** is a body appointed by Union Government. It has the power to hear appeals against the orders of the Adjudicating Authority and any other authority under the Act.

STARS Program

Context

- Under the STARS Programme, the Union Ministry of Education and the World Bank hosted a session on School-to-Work Transition.

STARS Project

About	• Ministry of Education has launched a centrally sponsored scheme called the Strengthening Teaching-Learning and Results for States (STARS) Project, with the support of the World Bank.
Objective	• The STARS Project **aims to**

	improve the quality and governance of school education in six Indian states - Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha, and Rajasthan. • These states have been selected based on their readiness and willingness to implement the project interventions. • The project is to benefit about 10 million teachers and 250 million students from pre-primary to secondary levels. • The STARS Project is aligned with the vision and goals of India's National Education Policy 2020, which envisages equitable and inclusive education for all.
Provisions	• **Strengthening the learning assessment system** • **Enhancing teacher development** • **Improving the delivery of education services** • **Promoting inclusion and innovation**

Radhakrishnan Committee

Context

The Radhakrishnan Committee, which was set up by the Ministry of Education to review the governance and functioning of the Indian Institutes of Technology (IITs), has submitted its report to the government.

Key Recommendations

Overarching agency	• **IITs be brought under the ambit of a proposed overarching agency, which would be responsible for coordinating and regulating all aspects of higher technical education in the country.**
Common practice	• IITs should adopt a common admission process, a common academic calendar, a common curriculum framework and a common faculty recruitment policy.
Inclusive	• IITs should increase their intake of students from diverse backgrounds, especially from rural areas and underrepresented groups.
Enhance research	• It has proposed that the IITs should allocate at least 20% of their budget for research and development activities, and establish centres of excellence in emerging areas such as artificial intelligence, biotechnology, nanotechnology and renewable energy.

Dotted Lands

Context	• Andhra Pradesh government has initiated a massive land survey to free up about 2 lakh acres of 'dotted lands' that have been encroached upon by various parties over the years.
About	• The 'dotted lands' are those that have been marked with dots on the revenue records, indicating that **they are disputed or under litigation.** • The government claims that the **'dotted lands' have been illegally occupied by various entities**, such as politicians, businessmen, religious institutions, educational institutions and others. • Some of these lands are prime properties located in urban areas, while others are forest lands or tribal lands.

	The government estimates that the value of these lands could be around Rs 1 lakh crore.
Significance	• The state government has **decided to remove the dotted lands from the prohibited list and restore the full rights of ownership and transfer to the farmers.** • This will enable them to access credit facilities, invest in agricultural development, and benefit from the market value of their lands. • Freeing up these lands will not only benefit the original owners but also **boost the state's economy and revenue.** • The government plans to use some of these lands for public purposes, such as housing, infrastructure, industries and social welfare schemes. • The survey will bring transparency and accountability to the land administration and prevent further encroachments and disputes.

Bureau of Indian Standards

Context	• India is hosting the 44th edition of the coveted annual ISO COPOLCO Plenary in New Delhi.
About ISO COPOLCO	• Committee on Consumer Policy, is a committee of the International Organization for Standardization (ISO) **responsible for promoting consumer interests in the standardization process and for ensuring that standards are developed with the needs of consumers in mind.**
	• **Creation date:** 1978
About ISO	• It is an **international body with 168 countries as members**, develops standards for the world impacting a diverse range of business and social sectors. • ISO was founded on 23 February 1947. • It is **headquartered in Geneva, Switzerland**. • The **three official languages of the ISO are English, French, and Russian.**
About BIS	• The Bureau of Indian Standards (BIS) is the **National Standards Body of India under Department of Consumer affairs, Ministry of Consumer Affairs, Food & Public Distribution** • It is established by the **Bureau of Indian Standards Act, 2016**. • The Minister in charge of the Ministry or Department having administrative control of the BIS is the ex-officio President of the BIS.
Certification Marks	• Certification marks on a commercial product are usually called as a mark of validity or an assurance of the fact that the manufacturer has tested the product and it has ensured that it meets the given quality standard. • **ISI:** ISI Mark is a certification mark used for industrial products in India. • **BIS Hallmark:** set up to certify the purity of gold jewelry and gold. • **AGMARK:** AGMARK is a certification mark used for agricultural products in India.

- **FPO Mark:** It is compulsory to have an FPO Mark on all processed fruit products sold in India.
- **Green and brown dot:** a common mark, printed on almost all food products.
- **India Organic Certification:** label provided to farm products processed in India.
- **Ecomark:** conform to a set of standards aimed at causing the least impact on the ecosystem.
- **The Non-Polluting Vehicle Mark:** a mandatory certification mark required on all new motor vehicles sold in India.

1. 21 SNIPPETS

ONE STATION ONE PRODUCT

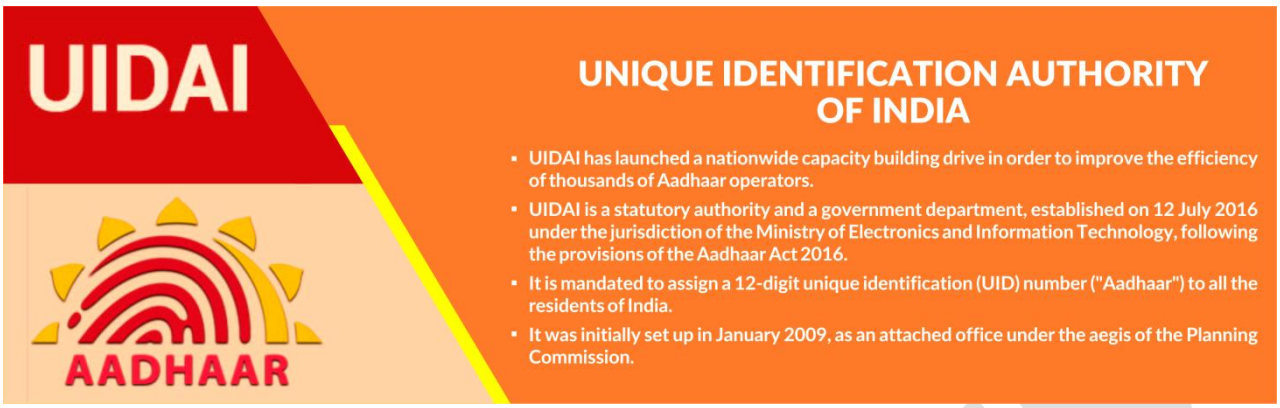
- Indian Railways' 'One Station One Product' (OSOP) scheme has covered 728 railway stations across the country.
- The concept of 'One Station One Product' was announced by the government in the Union Budget 2022-23.
- The scheme aims to build each railway station as a promotional hub and showcasing local and indigenous manufacturing products('Vocal for Local').
- The pilot of the scheme was started on March 25, 2022.

TARGET OLYMPIC PODIUM SCHEME (TOPS)

- Olympian and World Championship silver medallist archer Atanu Das has been reinducted in the Target Olympic Podium Scheme.
- It is a flagship program of the Ministry of Youth Affairs and Sports launched in 2014 with an attempt to provide assistance to India's top athletes.
- The scheme is extending all requisite support to probable athletes including foreign training, international competition, equipment and coaching camp besides monthly stipend of Rs. 50,000/- for each athlete.

PARLIAMENTARY PRIVILEGE COMMITTEE

- A breach of privilege notice against a Rajya Sabha member was referred to the Committee of Privileges for investigation by Rajya Sabha Chairman for his alleged remarks calling the Maharashtra Legislative Assembly a "house of thieves".
- Article 105 and Article 194 of the Indian Constitution mentioned certain privileges for the Member of Parliament and State Assembly respectively so that they can perform their duties without any obstruction.
- The Committee consists of 15 members (10 members in the case of Rajya Sabha) nominated by the Speaker (Chairman in the case of Rajya Sabha).
  - In the Lok Sabha, the Speaker nominates the head of the committee of privileges.
  - In the Rajya Sabha, the deputy chairperson heads the committee of privileges.
- Its function is to examine every question involving a breach of privilege of the House or the members of any Committee.
- It determines concerning the facts and makes suitable recommendations in its report



1. 22 5 MCQS AND 1 MAINS QUESTION

Q1. The local reservation policy may provide some short-term benefits but in the medium and long term it may hurt the economic development of the state unity of the country. What are the pros and cons of local reservation in jobs? (250 words)

Laws have been passed by states like Haryana, Andhra Pradesh, Jharkhand, Maharashtra, Karnataka and Madhya Pradesh guaranteeing reservation to local population in private jobs.

Arguments in favour of such a reservation:

- The perception that **outsiders and migrants are "taking away the jobs" meant for locals**. Thus, the need to actualise and redress the grievances of the local populace.
- In addition, there is a **need to preserve local languages and cultures** and not fall prey to the temptation to impose a single or a common language on all.
- Hiring locals who are **familiar with the terrain and language is critical in customer facing roles** and hence, this is another reason why reserving jobs for locals makes sense.
- The ultimate rationale behind introducing it was to **curb unemployment.**
- **Migration is becoming a major concern** especially inter-state migration and somehow it has also contributed a lot to the surge in the slum population.

Arguments against such a reservation:

- Introducing a policy of "sons of the soil" is an **infringement of the constitutional rights of employers**.
- Private sector jobs were **purely based on skills and analytical bent of mind**, and employees had a fundamental right to work in any part of India.
- There are chances that some of such jobs would be **done by people who might be less**

qualified than those who could have got the job in normal circumstances.

- Also, reserving jobs for locals narrows the supply of eligible candidates and this can **result in poor and shoddy work.**

Way Forward

- Government should **speed up with the policies of Vocal for locals**.
- The government should **focus on training the labor force** rather than converting the private sector into a public one partly.
- Governments and Other Stakeholders **must proceed cautiously and carefully.** Although domicile reservation may work out for short-term goals for the future ahead, it needs to put much more effort into the prosperity of the nation.

Q2. Which of the following statements is/are correct?

1. The concept of 'One Station One Product' was announced by the government in the Union Budget 2022-23.
2. Target Olympic Podium Scheme is a flagship program of the Indian Olympics Association launched in 2019 with an attempt to provide assistance to India's top athletes.

Select the correct answer using the codes given below:

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Correct Answer: A

*The scheme aims to build each railway station as a **promotional hub and showcasing local and indigenous manufacturing products** ('Vocal for Local'). The pilot of the scheme was started on March 25, 2022. **Hence statement 1 is correct.***

*It is a flagship program of the **Ministry of Youth Affairs and Sports** launched in 2014 with an attempt to provide assistance to India's top athletes. The scheme is extending all requisite support to probable athletes including foreign training, international competition, equipment and coaching camp besides monthly stipend of Rs. 50,000/- for each athlete. **Hence statement 2 is incorrect.***

Q3. How many of the following statements with reference to Special Provisions for Delhi U/A 239AA is/are correct?

1. The number of seats reserved for Scheduled Castes shall be regulated by President.
2. Council of Ministers is appointed by the chief minister.
3. It provided a mechanism for referring the matter to the President in case of a difference of opinion between the Lt. Governor and the Council of Ministers.

Select the correct answer using the codes given below:

A. Only one
B. Only two
C. All three
D. None

Correct Answer: A

*The total number of seats in the Legislative Assembly, the number of seats reserved for Scheduled Castes, the division of the National Capital Territory into territorial **constituencies shall be regulated by law made by Parliament. Hence statement 1 is incorrect.***

*The Chief Minister shall be appointed by the President and other Ministers shall be appointed by the President on the advice of the Chief Minister and the Ministers shall hold office during the pleasure of the President. **Hence statement 2 is incorrect.***

*Chief Minister is to aid and advise the Lieutenant Governor except in so far as he is, by or under any law, required to act in his discretion. Provided that in the case of difference of opinion between the Lieutenant Governor and his Ministers on any matter, the Lieutenant Governor shall refer it to the President for decision and act according to the decision given thereon by the President. **Hence statement 3 is correct.***

Q4. Which of the following statements with reference to Model Prisons Act 2023 is/are incorrect?

1. It will amend the Prisons Act, 1894.
2. Prisons are subject in the concurrent list.

Select the correct answer using the codes given below:

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Correct Answer: C

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*The Centre has **finalised a comprehensive 'Model Prisons Act, 2023' to replace the pre-independence era 'Prisons Act, 1894'** which mainly focused on keeping criminals in custody and enforcing discipline and order in prisons. **Hence statement 1 is incorrect.***

Prisons are a state subject**; this creates difficulty in having uniform prison management. The Union can only frame models for the states to incorporate and help in coordinating between states, encouraging them to adopt best practices. **Hence statement 2 is incorrect.

Q5. How many of the following laws are a source of power for the Enforcement Directorate in India?

1. The Prevention of Money Laundering Act, 2002
2. The Foreign Exchange Management Act, 1999
3. The Fugitive Economic Offenders Act, 2018

Select the correct answer using the codes given below:

A. Only one
B. Only two
C. All three
D. None

Correct Answer: C

Presently, the ED deals with four laws:

***1. The Prevention of Money Laundering Act, 2002 (PMLA):** It is a criminal law to prevent money laundering and to provide for confiscation of property involved in money laundering.*

***2. The Foreign Exchange Management Act, 1999 (FEMA):** It is a civil law dealing with foreign exchange market in India.*

***3. The Fugitive Economic Offenders Act, 2018 (FEOA):** This law deals with Indian offenders who leave India to escape laws. This allows ED to attach properties of fugitive offenders who have escaped India.*

***4. Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA):** Under this law, the ED is empowered to sponsor cases of preventive detention with regard to contraventions of FEMA, according to its website.*

Q6. Which of the following statements is/are incorrect in reference to Prevention of Money Laundering Act, 2002?

1. PMLA came into effect on 1st July 2002.
2. The Act prescribes that any person found guilty of money laundering shall be jailed for a maximum period of 10 years.

Select the correct answer using the codes given below:

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Correct Answer: A

*Prevention of Money Laundering Act, 2002 was **passed by the Indian parliament to prevent money laundering and to provide for the confiscation of property derived from money laundering.** PMLA came into effect on 1st July 2005. **Hence statement 1 is incorrect.***

*The Act prescribes that any person found guilty of money laundering shall be jailed from 3 years to 7 years; the **maximum punishment may extend to 10 years instead of 7 years. Hence statement 2 is correct.***

2. INTERNATIONAL RELATIONS

2.1 INDIA-ISRAEL RELATIONS

Details

- The MoU was signed by the Council of Scientific and Industrial Research (CSIR) of India and the Directorate of Defense Research and Development (DDR&D) of Israel in New Delhi.

Objectives

- To promote cooperation in high-technology areas such as artificial intelligence, quantum computing, semiconductors, synthetic biology and more.
- Enable joint projects between R&D organizations, start-ups, companies and venture capitals of both countries.
- Both countries will be benefited in terms of innovation, security and economic development.

- The modern relationship between India and Israel began in 1947 when India voted in favour of the United Nations Partition Plan for Palestine, which led to the creation of Israel. However, India did not establish diplomatic relations with Israel.
- After decades of non-aligned and pro-Arab policy, India formally established relations with Israel when it opened an embassy in Tel Aviv in January 1992.
- India and Israel are two countries that have a lot in common but also face many challenges in their bilateral relations.
    - Both countries became independent in the late 1940s, after a long struggle against British colonialism and a violent partition along religious lines.
    - Both countries are democracies with a large Muslim minority and a rich ancient history.
    - Both countries have also faced threats from their neighbours and have developed strong defence and security ties.
- India and Israel have also had a complex and evolving relationship, influenced by various factors such as the Palestinian issue, the Cold War, the Non-Aligned Movement, the rise of China, and the changing geopolitics of the Middle East.
- India and Israel have expanded their cooperation in various fields such as trade, agriculture, science and technology, culture and tourism.

Why Israel is Important for India?

Security

- Israel is a global leader in defence and intelligence and has provided India with crucial support and equipment in times of crisis.
    - For example, during the 1999 Kargil War, Israel supplied India with laser-guided bombs and unmanned aerial vehicles that helped India gain an edge over Pakistan.
- Israel has also helped India counter-terrorism and cyber threats and has shared its expertise in border management and homeland security.

Food Security

- Israel is a pioneer in agriculture and water management and has helped India improve its food security and water efficiency.
- It has introduced innovative technologies and practices in horticulture, irrigation, post-harvest management, and dairy farming, among others.
- It has also trained thousands of Indian farmers and officials in various aspects of agriculture.
- It has assisted India in developing its space programme, collaborating on satellite launches and joint missions.

Innovation

- Israel is known as the "start-up nation", having one of the highest rates of entrepreneurship and research and development in the world.
- It has partnered with India to foster innovation ecosystems, supporting start-ups, incubators, accelerators, and research institutions.
- The two countries have launched several joint initiatives, such as the India-Israel Industrial R&D and Technological Innovation Fund (I4F), the India-Israel Innovation Bridge, and the India-Israel Start-up Hackathon.

Diplomacy

- Israel is a valuable partner for India in the international arena, supporting India's bid for a permanent seat in the United Nations Security Council, backing India's fight against cross-border terrorism, and endorsing India's role as a regional power.
- Israel has also helped India strengthen its ties with other countries in West Asia, such as the United Arab Emirates, Bahrain, Oman, and Saudi Arabia.

Challenges that Hinder the Full Potential of India-Israel Relations

Trade and Investment

- Despite the signing of several agreements and memoranda of understanding, the bilateral trade between India and Israel has stagnated at around $6 billion for the last few years.
- The trade is mainly confined to diamonds and defence, with little diversification into other sectors.

- The two countries have been negotiating a free trade agreement since 2007, but it has not been finalized yet due to differences over tariffs, rules of origin, and market access.
- Israel's close ties with China pose a challenge to India's strategic interests in the region.

Human rights

- India has often expressed its concern over the human rights violations by Israel against the Palestinians, especially in the Gaza Strip and the West Bank.
- India has supported the two-state solution based on the 1967 borders and has voted in favour of several resolutions at the UN condemning Israel's actions.
- India has also opposed Israel's annexation plans for parts of the West Bank and its settlement expansion policies.
- These issues have sometimes caused friction between India and Israel at the diplomatic level.

Connectivity

- The connectivity between India and Israel is still poor, with only one direct flight operating between Delhi and Tel Aviv since 2018.
- There are no direct flights from other Indian cities or Israel to India's neighbouring countries.
- The lack of connectivity affects the people-to-people ties, tourism, business opportunities, and cultural exchanges between the two countries.
- There is a need to increase the frequency of flights, reduce visa restrictions, and promote tourism packages for both Indian and Israeli travellers.

Steps need to be taken

Expanding the scope of cooperation

- Expanding the scope of cooperation beyond traditional sectors to new areas such as health care, education, renewable energy, cyber security and space exploration.
- These sectors offer immense opportunities for mutual benefit and learning from each other's best practices and experiences.

Enhancing the Political Dialogue and Coordination

- Both countries can work together to promote peace and stability in their respective neighbourhoods, as well as to address common threats such as climate change, nuclear proliferation and terrorism.
- They can also support each other's candidatures and interests in various international forums and organizations.
- Develop a comprehensive strategic partnership that encompasses all aspects of the relationship, including economic, security, diplomatic and cultural dimensions.

Defence and Security

- India and Israel can enhance their defence and security ties by expanding their joint research and development, production and procurement of advanced weapons systems, such as missiles, drones, radars and cyber capabilities.
  - India can benefit from Israel's cutting-edge technology and expertise in these domains, while Israel can gain access to India's large and growing market and strategic location.
- The two countries can also cooperate more closely in counter-terrorism, intelligence sharing and maritime security.

Economy and Trade

- India and Israel can boost their economic and trade relations by signing a free trade agreement (FTA) that would reduce tariffs and non-tariff barriers, increase market access and facilitate investment flows.

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- .An FTA would also create opportunities for collaboration in sectors such as renewable energy, biotechnology, health care, education and culture.

- India and Israel can also leverage their respective strengths in innovation and entrepreneurship to foster a vibrant start-up ecosystem and support each other's ventures.

Strengthening the People-to-People ties

- Strengthening the people-to-people contacts and cultural exchanges to foster greater understanding and appreciation of each other's diverse cultures, religions and traditions.
- This can be done through facilitating visa regimes, promoting tourism, supporting academic collaborations, encouraging student exchanges and scholarships, and organizing cultural festivals and events.
- The two countries can increase the number of flights, visas and scholarships to facilitate more travel and interaction between their citizens. They can also encourage more joint projects and programs in the fields of arts, literature, music, cinema and sports.

Conclusion

- India and Israel have a strong friendship based on mutual respect, shared values and common interests. The two countries have supported each other on various regional and global issues, such as combating terrorism, promoting peace and stability, advancing development goals and addressing climate change. The two leaders have met several times and expressed their commitment to further enhance the strategic partnership between India and Israel.

2.2 INTERNATIONAL RELIGIOUS FREEDOM REPORT 2023

Context

- The U.S. Commission on International Religious Freedom's (USCIRF) latest report on India has sparked a lot of controversy and criticism from the Indian government and civil society.

Details

USCIRF Report 2023

- It is a comprehensive document that evaluates the state of religious freedom in various countries around the world.
- The report identifies 17 countries as Countries of Particular Concern (CPCs) for engaging in or tolerating severe violations of religious freedom, such as torture, imprisonment, discrimination, and violence.
- The report also places 11 countries on a Special Watch List (SWL) for having serious but not egregious violations of religious freedom.
- The report provides recommendations to the U.S. government on how to promote and protect the right to freedom of religion or belief abroad, such as imposing sanctions, engaging in diplomacy, and supporting civil society.

About India

- According to USCIRF, India has witnessed a sharp decline in religious freedom conditions in 2022, due to the enactment and enforcement of anti-conversion laws, the targeting of religious minorities by vigilante groups, the discrimination and violence against Dalits, and the restrictions on interfaith marriages and cow slaughter.
- The report placed India among the "countries of particular concern" (CPCs) for "engaging in or tolerating systematic, ongoing, and egregious violations of religious freedom".
- The report cited incidents of violence, discrimination, and harassment against religious minorities, especially Muslims and Christians, as well as laws restricting religious conversion and cow slaughter.
- The report also recommended that the U.S. government impose targeted sanctions on Indian officials and entities responsible for severe violations of religious freedom.

Issues Raised by the Report

- Communal violence and hate crimes against religious minorities, especially Muslims and Christians, by extremist groups or mobs.
- Forced conversions or re-conversions by some religious organizations or individuals are often accompanied by threats, coercion or inducements.
- Anti-conversion laws enacted by some states prohibit conversion from one religion to another by force, fraud or allurement, and require prior permission from the authorities for any conversion.
- Personal laws govern matters such as marriage, divorce, inheritance and adoption for different religious communities, and that may conflict with the principles of gender justice and human rights.
- Blasphemy laws criminalize any insult or injury to the religious sentiments of any class of citizens and that may be misused to harass or persecute dissenters or critics.
- Interference or discrimination by the state in the affairs of religious institutions or educational establishments run by religious minorities.

Indian Government Response

- The Indian government has strongly rejected the report as "biased and motivated" and accused the USCIRF of interfering in its internal affairs.
- The government has also defended its record of protecting the rights of all its citizens, regardless of their faith, and said that India is a secular state that respects pluralism and diversity.
- The government has also questioned the credibility and mandate of the USCIRF, which is an independent, bipartisan federal body that advises the U.S. government on international religious freedom issues.

Religious Freedom in India

- India is a diverse and secular country, where people of different religions coexist and practice their faiths freely.
- The Constitution of India guarantees the right to freedom of religion to all citizens, subject to public order, morality and health. However, this right is not absolute and has been challenged by various cases in the courts and society.

Provisions in the Constitution related to religious freedom in India

Article 25

- It states that "all persons are equally entitled to freedom of conscience and the right freely to profess, practise and propagate religion".
- It grants every individual the right to choose and follow any religion or no religion at all.
- It also allows the propagation of one's faith, subject to public order, morality and health. However, this does not mean that one can force or coerce others to convert to one's religion.
- The Supreme Court of India has held that the right to propagate does not include the right to convert by fraud, inducement or allurement.

Article 26

- Indian Constitution gives every religious denomination or sect the right to establish and maintain institutions for religious and charitable purposes, to manage its affairs in matters of religion, to own and acquire movable and immovable property, and to administer such property following the law.
- It protects the autonomy and independence of religious organizations and institutions from state interference.

Article 27

- It prohibits the state from levying any tax for the promotion or maintenance of any particular religion or religious denomination.
- It ensures that the state does not favour or support any religion with public funds.

Article 28

- It deals with the freedom of religion in educational institutions.
- It prohibits any religious instruction in any educational institution wholly maintained by out-of-state funds.
- It allows any person attending any educational institution recognized by the state or receiving aid out-of-state funds to withdraw from attending any religious

instruction or worship without prejudice to his rights.
    - However, it permits any educational institution established by a religious or linguistic minority or administered by a trust to impart religious instruction or conduct religious worship for its students.

Articles 29 and 30

- It protects the cultural and educational rights of minorities.
- Article 29 states that any section of the citizens having a distinct language, script or culture shall have the right to conserve the same.
    - It also prohibits discrimination on grounds of religion, race, caste, language or any of them in admission to educational institutions maintained by the state or receiving aid from it.
- Article 30 grants minorities, whether based on religion or language, the right to establish and administer educational institutions of their choice. It prohibits the state from discriminating against any minority educational institution in granting aid.

Article 371A-F

- It gives special rights and privileges to Nagaland, Assam, Manipur, Andhra Pradesh, Sikkim and Mizoram concerning their customary laws, land rights, religious affairs and social practices.

Other provisions in the Constitution related to religious freedom in India

- Article 14 guarantees equality before the law and equal protection of laws for all persons.
- Article 15 prohibits discrimination on grounds of religion, race, caste, sex or place of birth.
- Article 16 ensures equality of opportunity in matters of public employment.
- Article 19 grants freedom of speech and expression.
- Article 21 guarantees the protection of life and personal liberty.
- Article 51A imposes a fundamental duty on every citizen to promote harmony and the spirit of common brotherhood amongst all people transcending religious diversities.

IMPORTANT CASES RELATED TO RELIGIOUS FREEDOM IN INDIA

Shah Bano Case of 1985

In this case, a Muslim woman named Shah Bano was divorced by her husband and claimed maintenance from him under Section 125 of the Code of Criminal Procedure, which applies to all citizens irrespective of their religion.

The Supreme Court granted her the maintenance but faced a backlash from the Muslim community, who argued that the court had interfered with their law and violated their religious freedom.

The government then passed the Muslim Women (Protection of Rights on Divorce) Act, 1986, which limited the maintenance to the period of iddat (three months after divorce) and gave preference to Muslim personal law over secular law.

Sabarimala Case of 2018

In this case, a group of women challenged the ban on women of menstruating age (10-50 years) from entering the Sabarimala temple, a Hindu pilgrimage site in Kerala.

- The ban was based on the belief that the deity of the temple, Lord Ayyappa, was celibate and that women's entry would violate his sanctity.

The Supreme Court lifted the ban and held that it violated the right to equality and dignity of women and that religious practice cannot override constitutional values. However, this verdict faced resistance from many devotees, who protested against the entry of women and clashed with the police and activists.

Conclusion

- Religious freedom is a fundamental right and a core value of Indian democracy. It is essential for maintaining the diversity and pluralism of Indian society. It is also a source of strength and resilience for overcoming the challenges and conflicts that arise from religious differences. To protect and promote religious freedom in India, there is a need for dialogue, tolerance and respect among all religious groups and individuals.

2.3 CHINA'S ANTI-ESPIONAGE LAW

Context

- Recently China's legislature approved amendments to China's anti-espionage law, to broaden the scope of activities related to spying and national security.

Details

- The amendments are part of China's increasing focus on "security" under President Xi Jinping, who has sought to crack down on perceived threats within and outside China and control the flow of information outside the country.
- The changes also come amid a string of high-profile cases involving journalists, foreign executives, as well as international companies in China, who have faced scrutiny or prosecution on national security grounds

Key Points of Amendments

Broadens the definition

- It broadens the definition of espionage to include cyber attacks against state organs or critical information infrastructure, as well as the transfer of any information related to national security and interests.
- The law does not specify what constitutes such information, leaving it to the discretion of the authorities.

More Power

- It grants more powers to the anti-espionage agencies to access data, electronic equipment, personal property and border crossings of suspected spies or collaborators.
- It also allows them to impose administrative penalties or take coercive measures against those who obstruct their investigations

Enhances responsibilities

- It enhances the obligations and responsibilities of all state organs, armed forces, political parties, public groups, enterprises and organisations to prevent and stop espionage activities and cooperate with the anti-espionage agencies.
- It also encourages citizens to report any suspicious behaviour or activity that may endanger national security.

Increased Punishment

- It increases the penalties for espionage offences, ranging from 10 years to life imprisonment or even death for serious cases.
- It also stipulates that foreigners who commit espionage crimes in China shall be deported after serving their sentences

Concerns

- The amended law also poses concerns and challenges for foreign governments, businesses and individuals who have interactions with China or Chinese entities.
  - According to analysts, topics such as the origin of Covid-19, China's real pandemic death toll, and authentic data on the Chinese economy could all fall within the crosshairs of the law.
- The law's vague and broad definitions of espionage and national security may create uncertainties and risks for those who engage in legitimate activities such as trade, investment, research, journalism or cultural exchange.
- The law's enhanced enforcement powers may infringe on the rights and privacy of those who are subject to investigation or surveillance.
- Indian businesses present in China will also be affected by the new amendment law.

Steps that can be taken by the Indian businesses

- Review their contracts, agreements and policies with Chinese partners or clients to

ensure compliance with the law and avoid any potential disputes or liabilities.
- Conduct due diligence and risk assessment on their activities, data and personnel in China or involving Chinese entities to identify any vulnerabilities or exposures to espionage accusations or investigations.
- Seek legal advice or assistance from qualified professionals or institutions in case of any questions or problems arising from the law or its enforcement.
- Maintain good communication and cooperation with the Chinese authorities and respect their laws and regulations while pursuing their legitimate interests and goals.

Conclusion
- The amendment can be seen as a signal of China's growing assertiveness and confidence on the world stage, as well as its wariness of foreign interference and influence. It also reflects China's view that it is facing a hostile international environment, especially from the United States and its allies, who have accused China of engaging in unfair trade practices, human rights violations, cyber espionage and military expansionism.

2.4 INDIA AND EFTA STATES

Context
- India and the four European Free Trade Association (EFTA) states — Iceland, Liechtenstein, Norway and Switzerland — have recently expressed their willingness to resume their negotiations towards a Trade and Economic Partnership Agreement (TEPA).

Details
- The talks, which started in 2008, have stalled since 2013 due to differences on various issues such as intellectual property rights, data security, and market access. However, both sides have now recognized the potential benefits of a comprehensive and balanced TEPA that would boost their bilateral trade and economic cooperation.

European Free Trade Association (EFTA)
- It is a regional trade organization that consists **of four member states: Iceland, Liechtenstein, Norway and Switzerland.**
- It was established in 1960 as an alternative to the European Economic Community (EEC), which later became the European Union (EU).
- It aims to promote free trade and economic integration among its members, as well as with other countries around the world.

Working
- One of the main instruments of the EFTA's external trade policy is the negotiation of free trade agreements (FTAs) with third countries.
- The EFTA has signed FTAs with more than 40 countries and territories, covering various sectors such as goods, services, investment, intellectual property rights, public procurement and dispute settlement.
- The EFTA's FTAs are compatible with the rules and principles of the World Trade Organization (WTO) and complement the bilateral agreements that the EFTA states have with the EU.

Some of the main areas of interest for EFTA negotiations

Industrial goods
- EFTA seeks to eliminate tariffs and other barriers to trade for industrial goods, including fish and other marine products, as well as processed agricultural products.
- EFTA also aims to ensure effective rules of origin, customs procedures, technical regulations, standards and conformity assessment procedures.

Services
- EFTA seeks to improve market access and national treatment for service providers in various sectors, such as financial services, telecommunications, transport, tourism, professional services and environmental services.
- EFTA also aims to ensure a high level of protection for intellectual property rights, including geographical indications.

Investments

- EFTA seeks to establish a comprehensive framework for the promotion and protection of investments, including provisions on national treatment, most-favoured-nation treatment, fair and equitable treatment, expropriation and compensation, transfers, dispute settlement and corporate social responsibility.

Government procurement

- EFTA seeks to ensure transparency, non-discrimination and fair competition in government procurement markets, as well as mutual access to procurement opportunities at central and sub-central levels of government.

India and EFTA Relations

About

- India and EFTA are important economic partners with complementary strengths and interests.
- India is one of the fastest-growing economies in the world with a large domestic market, a young and skilled workforce, and a diversified industrial base.
- EFTA states are among the most competitive and innovative economies in the world with a high level of human development, technological expertise, and environmental standards.
    - They are also major investors in India with over $35 billion of foreign direct investment (FDI) as of 2020.
- The EFTA and India launched FTA negotiations to create a comprehensive and ambitious agreement that would enhance trade and investment flows between the two sides.

Trade and Economic Partnership Agreement (TEPA)

- A TEPA between India and EFTA would create new opportunities for trade and investment by **eliminating or reducing tariffs and non-tariff barriers on a wide range of products and services**.
- It would also enhance cooperation in areas such as intellectual property rights, government procurement, competition policy, dispute settlement, and sustainable development.
- EFTA seeks to enhance cooperation with India in areas such as competition policy, trade facilitation, trade and sustainable development, trade and gender equality, trade defence instruments, dispute settlement and institutional arrangements.

Expected Outcomes

- According to a study by the Indian Council for Research on International Economic Relations (ICRIER), a TEPA could increase India's exports to EFTA by 58% and EFTA's exports to India by 10%. It could also generate additional income of $2 billion for India and $1.6 billion for EFTA.
- TEPA between India and EFTA would support their respective efforts to diversify their trade partners and reduce their dependence on traditional markets such as the European Union (EU) and China.
    - It would also enable them to leverage their respective strengths in sectors such as pharmaceuticals, biotechnology, machinery manufacturing, information technology, renewable energy, and tourism.
- India could benefit from EFTA's cutting-edge technologies in solar, wind, hydro, and geothermal power to achieve its green growth aspirations.
- EFTA could benefit from India's highly skilled workforce in the services sector and its growing consumer demand.

Challenges

- Some challenges need to be addressed before a TEPA can be concluded.

Market access for services

- Services account for more than 50% of India's GDP and more than 40% of its exports. India has a comparative advantage in sectors such as IT services, business process outsourcing, healthcare, education and tourism.
- India seeks greater market access for its service providers in EFTA states. However, EFTA states have concerns over the recognition of qualifications, visas, work

permits and social security contributions for Indian professionals.

Intellectual property rights

- EFTA states have high standards of intellectual property protection and enforcement, especially in areas such as patents, trademarks, geographical indications and data exclusivity. They seek stronger commitments from India on these issues, which could affect India's generic pharmaceutical industry and its access to affordable medicines.
- India has argued that its intellectual property regime is compliant with the World Trade Organization (WTO) rules and that it needs to balance the interests of innovation and public health.

Rules of origin

- Rules of origin determine the origin of a product to apply preferential tariffs under a trade agreement.
- EFTA states have stringent rules of origin that require a substantial transformation of inputs within their territory or the free trade area.
- India has sought more flexible rules of origin that allow the cumulation of inputs from third countries with which both India and EFTA have trade agreements. This would enable India to source cheaper inputs from other countries and enhance its export competitiveness.

Market access for agricultural products

- The EFTA states have high tariffs and non-tariff barriers on agricultural products, especially dairy products, which are of interest to India.
- India has sought substantial tariff reductions and the elimination of non-tariff barriers on its agricultural exports to the EFTA states.

Intellectual property rights

- The EFTA states have demanded higher levels of protection and enforcement of intellectual property rights than what India has agreed to under the World Trade Organization (WTO) rules.
- India has expressed concerns over the impact of such demands on its public health, innovation and development objectives.

Data protection

- The EFTA states have stringent data protection laws that restrict the cross-border flow of personal data. India has sought flexibility and mutual recognition of its data protection regime to facilitate its services exports to the EFTA states, especially in the information technology sector.

Way Forward

- TEPA is important for both India and EFTA states as they have complementary markets and potential for collaboration in various sectors such as healthcare, telemedicine, education, technology, innovation and renewable energy.
- The way forward for the TEPA negotiations is to find a balanced and mutually beneficial outcome that addresses the interests and sensitivities of both sides. This would require political will and pragmatism from both parties.
- It should also be compatible with the multilateral trading system and complement the ongoing negotiations between India and the EU for a Broad-based Trade and Investment Agreement (BTIA).
- It should also be aligned with global trade rules and standards, especially in the areas of intellectual property rights, data protection, and sanitary and phytosanitary measures.
- It should also take into account the development needs and aspirations of India, as well as the specificities and sensitivities of the EFTA states.

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Conclusion

- A TEPA between India and EFTA would be a win-win proposition for both sides as it would enhance their bilateral trade and economic partnership while contributing to a more inclusive global trading system. It would also strengthen their strategic ties and mutual understanding of changing world order. Therefore, both sides should make sincere efforts to resume their negotiations and overcome their differences at the earliest.

2.5 INDIA, RUSSIA RUPEE TRADE TALKS

Context

- The recent news that India and Russia have suspended negotiations on trade settlement in the Indian rupee has been disproved by government officials from both countries.

Details

- Officials from both countries said that the talks are still ongoing and that there are no plans to abandon the rupee mechanism.
- The officials acknowledged that there are some challenges on how **Russia can utilise the surplus rupee in its Vostro accounts**, but they are working to resolve them.
    - Vostro accounts are a type of bank account that can facilitate international trade in local currencies.
    - It is an account that a bank holds on behalf of another bank, usually in a different country. It enables domestic banks to provide international banking services to their clients who have global banking needs.

Background

- The rupee settlement mechanism was initiated by India in response to the sanctions imposed on Russia after it invades Ukraine in February 2022.
    - The mechanism was expected to reduce the currency conversion costs for Indian importers of cheap oil and coal from Russia.
- The **rupee is not fully convertible** and India's share of global exports of goods is only about 2%. These factors limit the demand for rupees by other countries.
- Russia is reportedly not comfortable holding rupees and prefers to be paid in Chinese yuan or other currencies. However, an Indian government official said that both countries are looking for alternatives and that trade with Russia has not been affected by the payment issues.

What is the rupee settlement mechanism?

- The rupee settlement mechanism is a system that allows importers and exporters to pay and receive payments in rupees instead of dollars or other foreign currencies.
    - This reduces the dependence on the dollar and the associated exchange rate risks. It also helps in avoiding sanctions-related complications and enhancing the role of the rupee as an international currency.
- The Reserve Bank of India (RBI), the central bank of India, put in place a mechanism for international trade settlements in Indian rupees in July 2022.
- According to the RBI, this mechanism would facilitate trade with countries under sanctions, like Iran and Russia, as well as neighbouring countries and those willing to use the rupee as a base currency for trade diversification.
- Under this mechanism, Indian exporters and importers can use special Rupee Vostro Accounts to settle trade denominated in rupees.
    - These accounts are maintained by foreign banks with their correspondent banks in India.
    - The RBI has to approve the banks that can use this settlement system.

Features of India's Rupee Settlement Mechanism

- It applies to all goods and services exported from or imported to India.
- It is voluntary and based on mutual consent between the exporter and importer.

- It can be used for both direct and indirect trade transactions between India and any other country.
- It can be used for both spot and forward contracts.
- It can be used for both full and partial settlements of trade transactions.
- The RBI will monitor and regulate the mechanism to ensure compliance with the Foreign Exchange Management Act (FEMA), 1999 and other applicable laws and regulations

Benefits of the rupee settlement mechanism

Reducing transaction cost

- It can help increase bilateral trade by reducing transaction costs and currency risks.
- India's trade deficit with Russia was $47.9 billion in 2022-23, which can be reduced by increasing exports to Russia.

Diversify energy sources

- It can help India diversify its energy sources by importing more oil and gas from Russia at discounted prices.
- India is the third-largest oil consumer in the world and imports about 85% of its oil needs.
- Russia is one of the largest oil producers and exporters in the world and can offer cheaper oil to India in rupees.

Bypass U.S. Sanctions

- It can help India access advanced defence technologies and equipment from Russia without facing sanctions from the US or other countries.
- India is one of the largest importers of arms in the world and Russia is one of its major suppliers.
- Rupee settlement can enable smooth defence cooperation between the two countries.

Reduce the Vulnerability of Currency

- It can help India promote its rupee as an international currency and enhance its economic clout. By settling trade in rupees, India can increase the demand for its currency in global markets and reduce its vulnerability to external shocks.

Significance

- It can facilitate trade with countries under sanctions, like Iran and Russia, by bypassing the US dollar-based payment system that is subject to restrictions and scrutiny.
- It can promote trade diversification and reduce India's dependence on a few major trading partners, especially China, by creating new opportunities for trade with neighbouring countries and emerging markets that are willing to use the rupee as a base currency.
- It can enhance India's bargaining power and strategic autonomy in international affairs by reducing its vulnerability to external shocks and pressures arising from currency fluctuations, exchange rate volatility and foreign exchange reserve depletion.
- It can support India's long-term goal of internationalising the rupee by increasing its demand, supply and circulation in global markets, thereby enhancing its role as a reserve currency, a medium of exchange and a store of value

Challenges of the rupee settlement mechanism

Mutual Trust

- It requires mutual trust and confidence between the two countries to accept each other's currency as a medium of exchange.
- Russia may not be willing to hold large amounts of rupees in its reserves as it may not find enough avenues to use them or convert them into other currencies. Similarly, India may not be comfortable holding large amounts of rubles in its reserves.

Not Universal

- It may not be feasible for all types of trade transactions as some goods and services may require payments in other currencies due to global market conditions or contractual obligations.
- For instance, oil prices are determined by global benchmarks like Brent or WTI which are denominated in dollars.

Dominance of dollar

- It may not be compatible with the existing international financial system that is dominated by the dollar and other major currencies.
- Rupee settlement may face legal, regulatory and operational hurdles in cross-border

transactions that involve third-party intermediaries or institutions.

Way Forward

- India and Russia need to address these challenges and find a mutually acceptable solution for implementing the rupee settlement mechanism. India needs to improve its macroeconomic stability, fiscal discipline and export competitiveness to enhance the credibility and value of the rupee.
- India also needs to develop a robust infrastructure and regulatory framework for facilitating rupee trade settlement and providing adequate support and incentives for banks and traders. Russia needs to recognise the strategic importance of its relationship with India and be more flexible and accommodating in accepting rupees as a medium of exchange.
- It also needs to explore ways to utilise the rupees it receives from trade with India, such as investing in Indian markets or projects or exchanging them for other currencies through third-party arrangements.

Conclusion

- The rupee settlement mechanism is a promising initiative that can boost India-Russia trade relations and benefit both countries in the long run. However, it requires sustained efforts, cooperation and trust from both sides to overcome the challenges and make it a reality.

2.6 CPEC EXTENSION INTO AFGHANISTAN

Context

- The China-Pakistan Economic Corridor (CPEC), a part of the Belt and Road initiative, extended into Afghanistan

Details

Potential benefits

- The potential benefits of extending the CPEC into Afghanistan are mainly economic and strategic.

For China

- It would **provide an alternative route for its energy imports** from the Middle East, bypassing the vulnerable Strait of Malacca and the South China Sea.
- It would also **open up new markets and opportunities for Chinese investment** and trade in Afghanistan and Central Asia, which are rich in natural resources and potential consumers.

For Pakistan

- It would **enhance its role as a regional hub** and a bridge between China and other countries.
- It would also help **address some of its security concerns** by stabilizing its western border and reducing India's influence in Afghanistan.

For Afghanistan

- It would offer much-needed **infrastructure development and economic assistance**, which could improve its living standards and social stability.
- It would also **diversify its foreign relations** and reduce its dependence on any single country or bloc.

Potential risks

- The potential risks of extending the CPEC into Afghanistan are also significant and manifold.

For China

- It would **expose its personnel and assets to various threats from terrorist groups**, such as the East Turkestan Islamic Movement (ETIM), which operates in Xinjiang and Afghanistan.
- It would also entail dealing with a fragile and unpredictable political environment in Afghanistan, where the Taliban's legitimacy and authority are contested by other factions and forces.

For Pakistan

- It would **increase its financial burden and debt obligations** to China, which could limit its policy autonomy and sovereignty.
- It would also complicate its relations with other regional players, such as Iran and Russia, which have their interests and agendas in Afghanistan.

For Afghanistan

- It would raise **questions about its sovereignty and independence**, as it could become a pawn or a battleground for competing powers.
- It would also face challenges in ensuring transparency, accountability, and sustainability in its cooperation with China.

Implications of extending the CPEC into Afghanistan for other regional and Global actors

For India

- It would pose **a serious challenge to its strategic interests and influence in Afghanistan**, where it has invested billions of dollars in development projects over the past two decades.
- India has also opposed the CPEC as a violation of its sovereignty over Kashmir, where it has been engaged in a long-standing dispute with Pakistan.
- India has expressed its **concern over the Taliban's takeover of Kabul** and its impact on regional security, but it has also maintained communication with the Taliban through its embassy in Doha.
- India may seek to cooperate with other countries, such as Iran, Russia, or even the United States, to protect its interests and counter China's influence in Afghanistan.

The United States

- It would present **both opportunities and challenges for its engagement and competition with China** in Asia and beyond.
    - On one hand, it could offer a chance to cooperate with China on issues of common interest, such as counterterrorism, narcotics control, humanitarian assistance, and regional stability in Afghanistan.
    - On the other hand, it could also increase the rivalry and mistrust between the two powers, as they vie for influence and leverage in Afghanistan and its neighboring countries.
- The United States may seek to balance its interests and values in dealing with both China and the Taliban, while supporting its allies and partners, such as India, Japan, Australia, or NATO, in shaping the future of Afghanistan.

China-Pakistan Economic Corridor (CPEC)

About

- It is a 3000 km **Chinese infrastructure network project undertaken in Pakistan.**
- It is a **part of the Belt and Road initiative**, a global development strategy proposed by China to connect Asia, Europe and Africa through various infrastructure projects.
    - Recently, CPEC has been extended into Afghanistan, to enhance regional connectivity and cooperation.

Objectives and benefits

- CPEC has several objectives and benefits for both China and Pakistan.

For China

- CPEC is a way to secure and reduce the passage for its energy imports from the Middle Eastern countries by avoiding the existing route from the Straits of Malacca between Malaysia and Indonesia, which could be blocked in case of a war or a conflict.
- By developing a deep water port at Gwadar in the Arabian Sea and a well-built road and rail line from this port to Xinjiang Province in western China, CPEC would provide a shortcut for boosting the trade between Europe and China.
    - This would also save China $2 billion per year in transportation costs.
- CPEC would help China to address a national security issue by promoting economic development of the Xinjiang region, which has been facing unrest and violence from Muslim separatists of native Uyghurs.

For Pakistan

- CPEC is a way to overcome its electricity shortfall, infrastructural development and modernize its transportation networks. Along with shifting it from an agricultural-based economic structure to an industrial-based one.
- **CPEC is expected to create upwards of 2.3 million jobs between 2015 and 2030** and add 2 to 2.5 percentage points to the country's annual economic growth.
- As of 2022, CPEC has enhanced Pakistan's exports and development capacity and is providing 1/4th of its total electricity.
- CPEC is also seen as a strategic opportunity for Pakistan to improve its relations with China, which has been its long-term ally and partner.

Challenges

Security

- One of the main challenges is the security situation in Pakistan, especially in the Balochistan province where Gwadar Port is located.
- **Balochistan has been witnessing a separatist insurgency** for decades, and some militant groups have attacked CPEC projects and workers in the past.
- The Pakistani government and military have deployed thousands of troops to protect CPEC projects and personnel, but the threat remains high.

Environmental Impact

- Another challenge is the **environmental impact of CPEC projects**, especially on the fragile ecosystems of the Himalayas and the Thar Desert.
- Some environmentalists have raised concerns about the potential damage to biodiversity, water resources and climate change due to CPEC activities.

Debt sustainability

- A third challenge is the **debt sustainability of CPEC projects**, as Pakistan has borrowed heavily from China and other sources to finance them.
- Some analysts have warned that Pakistan could face a debt trap if it fails to repay its loans on time or if the projects do not generate enough returns.

Why India opposes CPEC?

- One of the main reasons why India opposes CPEC is that **it passes through the disputed territory of Gilgit-Baltistan and Azad Kashmir, which are claimed by both India and Pakistan as part of their respective states.**
- India considers CPEC a violation of its sovereignty and territorial integrity and has expressed its objections to China and other countries involved in the project.
- India understands that CPEC would enhance China's strategic influence and presence in South Asia and the Indian Ocean region, which could pose a threat to India's security and interests.

Way Forward

- The way forward for CPEC is to address these challenges and risks through dialogue, cooperation and transparency among all stakeholders involved. CPEC has the potential to transform the economic landscape of

Pakistan and the region, but it also requires careful planning, management and oversight to ensure that it benefits all parties equally and does not harm anyone's rights or interests.

2.7 INDIA - GULF RELATIONS

Context

- The recent meeting in Riyadh between Saudi Crown Prince Mohammed bin Salman and the national security advisers of the US, UAE, and India was a significant event that highlighted the increasing alignment of interests and values between Delhi and Washington in the Gulf region.

Details

- The Gulf region is of vital importance for both India and the US, as it is home to millions of Indian expatriates, a major source of energy supplies, and a key partner in trade and investment.
- The region is also facing multiple threats, such as Iran's nuclear ambitions, the rise of extremist groups, the instability in Yemen and Iraq, and the growing rivalry between Saudi Arabia and Turkey.
    - These challenges require a coordinated and comprehensive approach from the regional and international actors.

Highlights of the meeting

- The meeting in Riyadh demonstrated that India and the US share a common vision for a stable, prosperous, and inclusive Gulf region that respects the sovereignty and territorial integrity of all countries.
- The two sides also reaffirmed their commitment to work together to counter terrorism, extremism, and radicalization;
    - To promote maritime security and freedom of navigation
    - To support the peaceful resolution of conflicts
    - To enhance economic and cultural ties
- It reflects **the growing trust and confidence between India and the US,** as well as their willingness to engage with other regional partners, such as Saudi Arabia and the UAE, who share similar interests and values.
- The meeting in Riyadh was a milestone in the evolution of India-US relations in the Gulf region. It showed that the two countries have moved beyond the traditional bilateral framework and are ready to cooperate with other like-minded partners to shape a positive and constructive agenda for the region.
    - It also signalled that India and the US are emerging as key players in the Gulf region who can contribute to its peace and stability.

India and Gulf relations

About

- India and the Gulf countries have a long history of cultural, economic and strategic ties that span over centuries.
- The **Gulf countries, comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE),** are home to more than 8 million Indians who contribute to the development and prosperity of both regions.
- India is also one of the largest trading partners of the Gulf countries, with **bilateral trade reaching $155 billion in 2021-22.**
- **India depends on the Gulf for more than 60% of its crude oil imports and 32% of its natural gas imports**.
- India is also one of the largest trading partners and energy importers of the Gulf countries, especially Saudi Arabia and the United Arab Emirates (UAE).
- In recent years, **India has elevated its relations with the Gulf countries to a strategic level, based on mutual interests and shared values.**
- Given the significance of the Gulf for India's energy security, economic growth and diaspora welfare, India has been pursuing a proactive and multi-dimensional engagement with the region under its 'Think West' policy.

Strategic Convergence

- The common threat of terrorism and extremism, which requires close coordination and cooperation on security and intelligence matters.
- The shared vision of a multipolar world order, where regional powers play a constructive role in maintaining peace and stability.
- The mutual desire to diversify their economies and reduce their dependence on hydrocarbons, which opens up new opportunities for investment, trade and technology transfer.
- The growing influence of China in the region poses a challenge to India's interests and values.

Initiatives taken by India in recent years

High-level visits

- The Prime Minister of India has visited all six GCC countries since 2015 and has received several leaders from the region in India.
- These visits have resulted in the signing of various agreements and memoranda of understanding (MoUs) on areas such as defence, security, trade, investment, energy, space, culture, education and health.

Strategic partnerships

- India has established strategic partnerships with Saudi Arabia, UAE and Oman, which entail regular consultations and cooperation on regional and global issues of mutual interest.
- India also upgraded its relations with Qatar to a comprehensive strategic partnership in 2016.

Defence and security cooperation

- India has enhanced its defence and security cooperation with the Gulf countries through joint exercises, training, port calls, defence industry collaboration and counter-terrorism coordination.
- India has also signed defence cooperation agreements with Saudi Arabia, UAE, Oman and Qatar. India and UAE have conducted two editions of the naval exercise 'Zayed Talwar' in 2018 and 2021.
- India and Oman have a long-standing defence partnership that includes access to the Duqm port for Indian Navy.

Economic engagement

- India has been exploring new avenues of economic cooperation with the Gulf countries beyond the traditional sectors of oil and gas.
- India has invited investments from the Gulf countries in its flagship initiatives such as Make in India, Digital India, Smart Cities and Start-up India.
- India has also signed agreements with Saudi Arabia, UAE and Oman to establish joint investment funds worth $75 billion.
- India and UAE have launched a fast-track mechanism to facilitate trade and investment flows.

Cultural and people-to-people ties

- India has been promoting its cultural and civilizational links with the Gulf countries through various initiatives such as the Festival of India, the International Day of Yoga, the Gandhi-Mandela exhibition and Ayurveda Day.
- India has also been facilitating the welfare and well-being of its diaspora in the Gulf through initiatives such as the e-Migrate system, Pravasi Bharatiya Kendra, Indian Community Welfare Fund and MADAD portal.

Challenges and Opportunities

Regional Stability

- The Gulf region is **witnessing several conflicts and tensions that pose a threat to peace and security**. These include the Iran-Saudi rivalry,

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the Yemen crisis, the Qatar-GCC rift, the Israel-Palestine issue and the rise of extremist groups.
- India has a stake in ensuring stability and de-escalation in the region as it affects its energy supplies, trade interests and diaspora safety. India has been advocating dialogue and diplomacy to resolve disputes peacefully and has offered its good offices to mediate if required.

Energy transition

- The Gulf countries are transforming their energy sector as they seek to diversify their economies away from oil dependence and adopt renewable sources of energy. This presents an opportunity for India to collaborate with them in areas such as solar power, hydrogen economy, green technology and innovation.
- India can also leverage its expertise in energy efficiency, demand management and energy storage to assist the Gulf countries in their transition.

Connectivity

- The Gulf region is a **vital link for India's connectivity with Africa, Europe and Central Asia**. India can benefit from the infrastructure development and trade facilitation initiatives undertaken by the Gulf countries such as the Belt and Road Initiative (BRI), the Regional Comprehensive Economic Partnership (RCEP), the International North-South Transport Corridor (INSTC) and the Ashgabat Agreement.
- India can also explore synergies between its connectivity initiatives such as Sagarmala, Chabahar port and International Solar Alliance (ISA) with those of the Gulf countries.

Soft power

- **India enjoys a positive image and goodwill among the people of the Gulf region due to its cultural affinity, democratic values and development model**. India can leverage its soft power assets such as Bollywood, cricket, yoga, Ayurveda, cuisine and diaspora to enhance its influence and outreach in the region.
- India can also showcase its achievements in science, technology, education and innovation to attract talent, tourists and students from the Gulf countries.

Way Forward

- Enhancing diplomatic presence and outreach in the region by opening more embassies, consulates and cultural centres.
- Expanding defence and security cooperation with the Gulf countries by conducting more joint exercises, training programs and arms sales.
- Strengthening economic ties with the Gulf countries by signing free trade agreements (FTAs), facilitating investments, promoting tourism and enhancing connectivity.
- Deepening cultural and people-to-people exchanges with the Gulf countries by supporting educational, scientific, artistic and humanitarian initiatives.
- Playing a proactive role in resolving some of the regional disputes and conflicts by offering mediation, dialogue or humanitarian assistance.

Conclusion

- India and the Gulf region share a strategic partnership that is based on mutual trust, respect and interests. The two sides have a common vision of peace, stability and prosperity in their neighbourhoods. The potential for cooperation between them is immense and can be tapped by overcoming challenges and seizing opportunities.

2.8 ARAB LEAGUE

Context

- The Arab League readmitted Syria after more than a decade of suspension, consolidating a regional push to normalise ties with Syrian President Bashar al-Assad.

Details

- This decision marks a significant shift in the Arab world's stance towards the Syrian regime, which has been accused of committing atrocities against its people during the civil war that erupted in 2011.

Background

- The **Arab League suspended Syria's membership in November 2011**, after the Assad government failed to comply with an Arab peace plan that aimed to end the violence and initiate a political transition.
- The move was seen as a diplomatic isolation of Syria and a pressure tactic to force Assad to step down. However, the suspension did not have the desired effect, as Assad managed to survive the uprising with the help of his allies Iran, Russia and Hezbollah.
- Over the years, some Arab countries have gradually softened their position on Syria, citing various reasons such as the need to counter Iran's influence, restore stability and security in the region, facilitate the return of Syrian refugees, and prevent further humanitarian suffering.

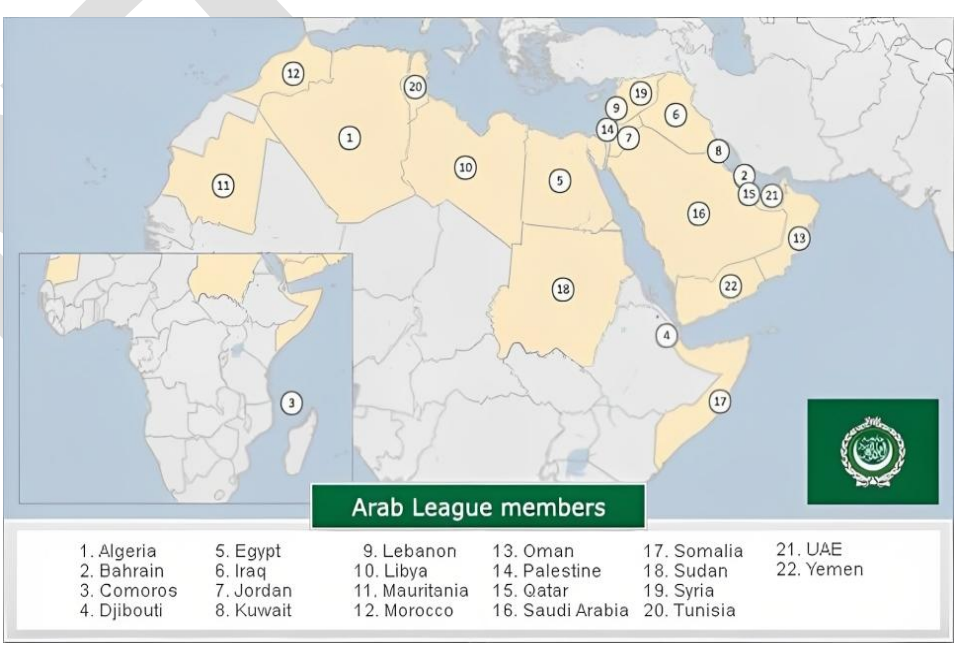
Arab League's decision to reinstate Syria

- The decision was announced by the Arab League's Secretary-General based on a "consensus" among the member states. Arab League hoped to play a constructive role in resolving the Syrian crisis and supporting the political process led by the United Nations.
- The decision was also met with criticism from some quarters, especially from human rights groups and activists who accused the Arab League of rewarding Assad for his brutal repression of dissent.
    - They argued that readmitting Syria without any conditions or concessions would undermine the prospects of accountability and justice for the victims of war crimes and crimes against humanity. They also warned that it would send a signal to other authoritarian regimes that they can get away with impunity.

Arab League

About

- The Arab League, or the League of Arab States, **is a regional organization that was founded in 1945** by seven Arab countries: Egypt, Syria, Lebanon, Iraq, Jordan, Saudi Arabia, and Yemen
- The league has expanded to include 22 member states from the Middle East and Africa. Some of the most notable additions are Libya (1953), Sudan (1956), Tunisia and Morocco (1958), Algeria (1962), and the Palestine Liberation Organization (PLO; 1976).



- The league has also established several specialized agencies and institutions, such as the Arab Monetary Fund, the Arab Fund for Economic and Social Development, the Arab League Educational, Cultural and Scientific Organization (ALECSO), and the Arab Parliament.

Objectives

- To strengthen and coordinate the political, cultural, economic, and social programs of its members and to mediate disputes among them or between them and third parties.
- To promote Arab interests and solidarity in the world.

Significance

- The league has played an **important role in various regional and international issues**, such as the Arab-Israeli conflict, the Arab Spring, the Syrian civil war, and the fight against terrorism.
- The league has also adopted several joint defence and economic cooperation agreements among its members.
- The Arab League is not only a regional organization but also a global actor that influences world affairs.
- It represents a **large population of about 407 million people and a combined GDP of about $3.4 trillion.**
- It controls a significant share of the world's oil and gas reserves and has a strong voice in international organizations such as the United Nations and the African Union.
- The league's decisions and actions have implications for peace, security, development, human rights, and democracy in the region and beyond.

Arab League initiatives

- Supporting the Palestinian cause and granting the Palestine Liberation Organization (PLO) full membership in 1976.
- Condemning Iraq's invasion of Kuwait in 1990 and supporting the international coalition that liberated Kuwait.
- Launching the Arab Peace Initiative in 2002, offered Israel normal relations with all Arab states in exchange for its withdrawal from the occupied territories and a just solution for the Palestinian refugees.
- Established the Greater Arab Free Trade Area (GAFTA) in 2005, which aimed to eliminate tariffs and trade barriers among its members.
- Supporting the Arab Spring uprisings in 2011 and calling for democratic reforms and human rights in several Arab countries.

Challenges

- The **lack of a binding mechanism to enforce its decisions and resolutions**, which are often ignored or violated by its members or other parties.
- The **diversity and divergence of interests and agendas** among its members often lead to disagreements and conflicts on various issues.
- The **interference of external powers and regional rivals**, such as Iran, Turkey, Israel, and the United States exploit the divisions and weaknesses of the Arab League to advance their interests.
- The **inability to address the root causes** of the conflicts and crises in the region, such as poverty, inequality, corruption, authoritarianism, sectarianism, extremism, and foreign occupation.
- The failure to adapt to the changing realities and needs of the Arab people, especially the youth, who demand more democracy, freedom, dignity, justice, and development.

Steps need to be taken

- **Developing a clear vision and strategy** for its role and objectives in the region and beyond.
- **Strengthening its institutional capacity** and governance structure to ensure more transparency, accountability, participation, and coordination among its members.
- **Enhancing its dialogue and cooperation** with other regional and international organizations and actors on issues of common interest and concern.
- **Promoting a culture of peace and dialogue** among its members and with other parties to resolve disputes peacefully and diplomatically.
- **Supporting the democratic transition** and development of its members and addressing their social and economic challenges.
- **Empowering civil society organizations** and youth groups to play a more active role in shaping its agenda and policies.

India and Arab League

About

- India and the Arab League have a long history of cooperation and friendship, dating back to

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the independence movements of both regions from colonial rule.

- India was one of the first countries to recognize the Arab League as a regional organization in 1945 and has maintained diplomatic relations with all it's member states ever since.
- India has also supported the Arab League's efforts to promote peace, stability and development in the Middle East and North Africa, especially in resolving the Palestinian issue and the Syrian crisis.
- India, as a rising global power and a major partner of many Arab countries, has a strong interest in maintaining and enhancing its relations with the Arab League.

Strategic Partnership

- **India and the Arab League have been working together to enhance their strategic partnership** through regular dialogue and consultation mechanisms, such as the India-Arab Cooperation Forum, the India-Arab Ministerial Conference, the India-Arab Cultural Festival and the India-Arab Business Summit.
    - These platforms have helped to identify areas of mutual interest and benefit and to explore new avenues of collaboration.
- India has also extended development assistance and capacity-building programs to several Arab League countries, especially in Africa.

Significance

- India and the Arab League **share common values and principles such as democracy, pluralism, human rights and respect for international law.** Both sides support each other's aspirations and interests in regional and global forums.
- India and the Arab League have extensive economic ties that benefit both sides. **India is one of the largest trading partners of the Arab League,** with bilateral trade reaching $160 billion in 2019-20.
    - India is also a major source of energy for the Arab League, importing about 60% of its crude oil from the region. Moreover, India is a key destination for Arab investments, tourism and remittances.
- India and the Arab League have strong **cultural and people-to-people links that foster mutual understanding and goodwill.** India is home to more than 10 million Indian expatriates who work and live in Arab countries, contributing to their development and prosperity.
    - India also hosts thousands of Arab students, scholars, artists and tourists who enrich its cultural diversity and social fabric.

Challenges

Lack of regular dialogue

- **Lack of regular dialogue and coordination** between the two sides at the institutional level.
- Although India has established diplomatic relations with all the member states of the Arab League individually, it does not have a formal mechanism for dialogue with the Arab League as a collective entity.
- The last ministerial meeting between India and the Arab League was held in 2016 in Bahrain, after a gap of 12 years.
- There is a need to institutionalize and regularize such meetings at various levels to enhance mutual trust and cooperation.

Divergence of views and interests

- The divergence of views and interests on some regional issues such as Palestine, Iran, Yemen and Syria.
- India and the Arab League have different positions on these issues, which sometimes create misunderstandings and tensions.
- There is a need to increase dialogue and consultation on these issues to find common ground and avoid conflicts.

Way Forward

- **Establishing a permanent mechanism for dialogue** between India and the Arab League at various levels such as summit, ministerial, senior official and expert levels.
- **Expanding cooperation** in areas such as trade, investment, energy, infrastructure, agriculture, health, education, science and technology, culture and tourism.

- **Enhancing cooperation** in combating terrorism, extremism, radicalization and cybercrime.
- **Supporting each other's candidatures** for various international organizations and forums.
- **Promoting cultural exchanges** and people-to-people contacts through scholarships, fellowships, festivals, exhibitions and sports events.
- **Developing joint projects** and initiatives for regional peace and stability such as humanitarian assistance, disaster relief, mediation and conflict resolution.

Conclusion

- India and the Arab League have a common vision of a peaceful, prosperous and stable region that can contribute to global peace and development. They can work together to achieve this vision by strengthening their political dialogue, enhancing their economic partnership, promoting their cultural exchanges and supporting their regional integration.

2.9 INDIAN OCEAN CONFERENCE

Context

- The 6th Indian Ocean Conference (IOC) was held in Dhaka, Bangladesh on May 12-13, 2023.

Details

- The conference was organized by the Bangladesh foreign ministry in collaboration with India Foundation, a leading think tank based in India.
- The conference was attended by representatives from 25 countries in the Indian Ocean region.

Highlights of the 6th IOC

- The **theme of the 6th IOC is "Peace, Prosperity, and Partnership for a Resilient Future".**
- The **conference focused on four sub-themes:**
  - Enhancing regional connectivity
  - Strengthening maritime security
  - Promoting blue economy
  - Fostering cultural cooperation.
- It was attended by delegates from 25 countries. The conference provided an opportunity for networking and exchange of views among the participants.
- The conference was inaugurated by Prime Minister Sheikh Hasina of Bangladesh, who highlighted the importance of the Indian Ocean region for global peace and stability. She also called for enhancing connectivity, trade, tourism, and cultural exchanges among the countries of the region.
- Some of the key issues discussed at the conference were maritime security, counter-terrorism, blue economy, climate change, vaccine diplomacy, digital connectivity, cultural diversity, and women empowerment.
- The conference also witnessed the launch of the Indian Ocean Studies Network (IOSN), a platform for academic and policy research on the Indian Ocean region.
  - The network aims to promote dialogue and exchange among scholars, practitioners and institutions working on the Indian Ocean issues.

Dhaka Declaration

- The 6th IOC concluded with a **Dhaka Declaration that reaffirmed the commitment of the participating countries to work together for peace, prosperity and partnership in the Indian Ocean region**.
- The declaration expressed solidarity with the people of Myanmar and called for a peaceful resolution of the crisis following the ASEAN five-point consensus.
- The declaration welcomed the proposal of Bangladesh to host a summit of the Indian Ocean Rim Association (IORA) in 2024.

Indian Ocean Region

About

- It is one of the most strategically important and dynamic regions in the world.
- It covers a vast area of about 70 million square kilometres, stretching from the eastern coast of Africa to the western coast of Australia, and from the Persian Gulf and the Arabian Sea to the southern Indian Ocean.
- The region is **home to some 2.7 billion people, accounting for nearly 40% of the world's population**.
- The region represents diverse cultures, religions, and political systems.

Significance

- The region hosts **some of the world's most vital sea lanes of communication, through which about half of the world's container traffic, one-third of its bulk cargo traffic, and two-thirds of its oil shipments pass.**
- The region is **rich in natural resources**, such as oil, gas, minerals, and fisheries, as well as emerging sectors such as renewable energy and blue economy.
- A vital artery of global trade and commerce, connecting Asia, Africa, Europe, and Oceania.
- A region with immense potential for economic growth, social development, and environmental protection.

Challenges

- The region also faces several challenges that threaten its stability and prosperity. These include traditional security threats such as interstate disputes, maritime boundary issues, naval competition, and terrorism, as well as non-traditional security threats such as piracy, illegal fishing, human trafficking, drug smuggling, environmental degradation, climate change, and natural disasters.
- These challenges require effective cooperation and coordination among the regional countries and stakeholders to ensure good governance and sustainable development of the Indian Ocean.

Steps need to be taken

Strengthen the existing regional mechanisms

- One of the ways to address challenges is to **strengthen the existing regional mechanisms and institutions that deal with various aspects of ocean governance**. These include;
  - The **Indian Ocean Rim Association (IORA)** is a multilateral forum for economic and socio-cultural cooperation among 22 member states and 10 dialogue partners.
  - The **Indian Ocean Naval Symposium (IONS)** is a voluntary initiative for naval cooperation among 24 littoral states.

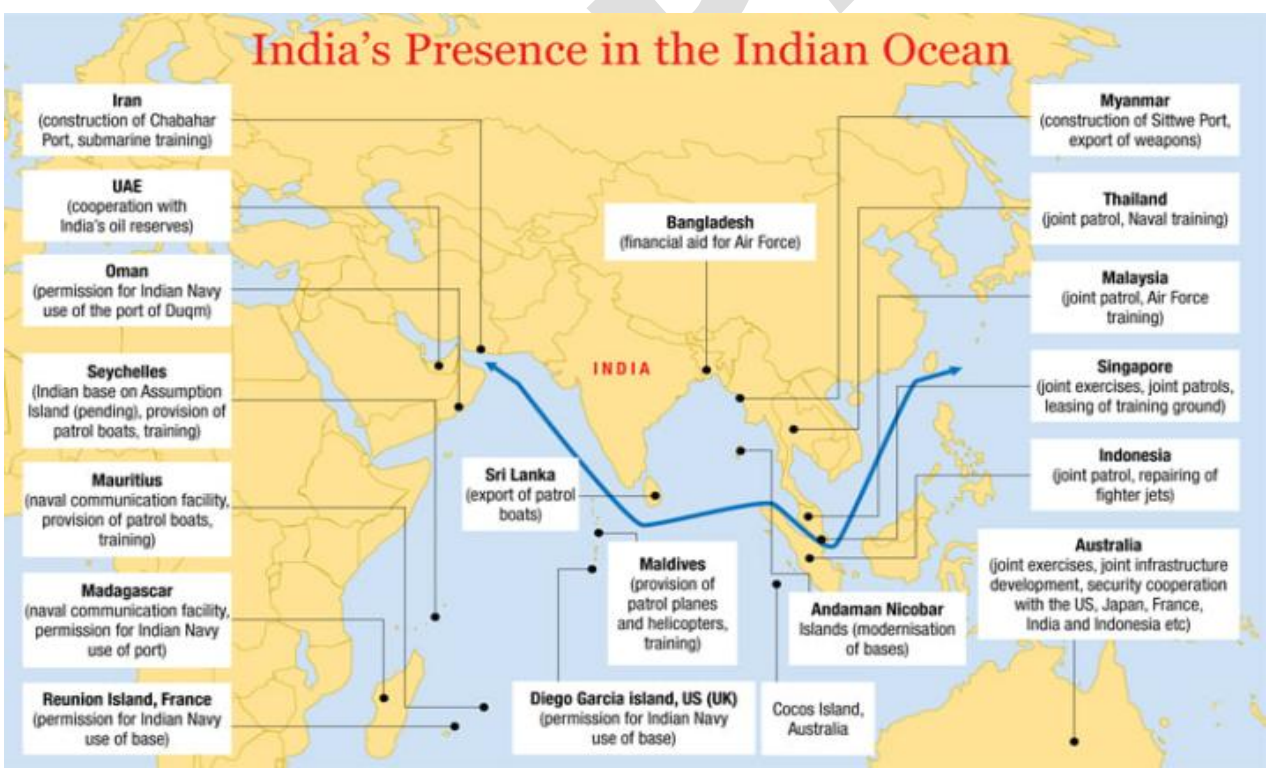
- The **Indian Ocean Commission (IOC**) is an intergovernmental organization for regional integration among five island states.
- The **Indian Ocean Tuna Commission (IOTC)** is a regional fisheries management organization under the Food and Agriculture Organization (FAO).

- These mechanisms provide platforms for dialogue, information sharing, capacity building, and joint action on various issues of common interest and concern.

Enhance bilateral and multilateral partnerships

- Another way to address these challenges is to **enhance bilateral and multilateral partnerships** among regional countries and with external actors.
- These partnerships can be based on shared interests and values, mutual respect and trust, and complementarily and synergy. Some examples of such partnerships are;
  - The **India-Africa Forum Summit (IAFS)** is a platform for strategic partnership between India and 54 African countries.
  - The **Quad Security Dialogue (QSD)** is an informal grouping of four democracies - Australia, India, Japan, and the United States - for ensuring a free and open Indo-Pacific.
  - The **Blue Dot Network (BDN)** is an initiative by Australia, Japan, and the United States to promote high-quality infrastructure development in the region.
  - The **Trilateral Maritime Security Cooperation (TMSC)** is a framework for maritime security cooperation among India, Sri Lanka, and the Maldives.

India and the Indian Ocean region



About

- The Indian Ocean region (IOR) is a strategically vital area that connects the major engines of the global economy and hosts some of the fastest-growing regions in the world.
- India, as the largest country and a key geopolitical actor in the IOR, has a significant role to play in ensuring the security and stability of this region. However, India also faces many challenges and opportunities in

the IOR, which require a comprehensive and proactive approach.

Challenges

The increasing influence of China

- One of the main challenges for India is to counter **the growing influence and presence of China in the IOR, which has been expanding its economic, diplomatic, and military footprint through initiatives such as the Belt and Road Initiative (BRI),** the Maritime Silk Road (MSR), and the String of Pearls strategy.
- China's increasing involvement in the IOR has raised concerns among India and other regional countries about its strategic intentions and potential threats to their sovereignty, security, and interests.
- China's activities in the IOR have also created a strategic imbalance and a power asymmetry that India needs to address.

Non-traditional security threats

- Another challenge for India is to deal with the **non-traditional security threats in the IOR, such as piracy, terrorism, smuggling, human trafficking, illegal fishing, environmental degradation, and climate change.**
- These threats pose serious risks to the maritime security, economic development, and human well-being of the IOR countries.
- India has been actively cooperating with other regional and extra-regional actors to combat these threats through various mechanisms such as the Indian Ocean Rim Association (IORA), the Indian Ocean Naval Symposium (IONS), and the Indian Ocean Commission (IOC).
- India has also been assisting and capacity-building its smaller neighbours in the IOR to enhance their maritime security capabilities and resilience.

Steps need to be taken

India needs to utilize its true potential

- India needs to leverage its geographic location, economic potential, cultural affinity, and historical ties with the IOR countries to increase its influence and leadership in the region.
- India has the unique advantage of being centrally located in the IOR, with a long coastline of over 7500 km and an exclusive economic zone of over 2 million sq. km.
- India also has a large and growing economy that can offer trade, investment, and development opportunities to its IOR partners.
- India has a rich and diverse cultural heritage that connects it with many IOR countries through shared values, beliefs, languages, and traditions.
- India also has a strong historical legacy of maritime engagement and cooperation with the IOR countries dating back to ancient times.

Adopt a holistic strategy

- India needs to adopt a holistic and forward-looking strategy for the IOR that can address its challenges and capitalize on its opportunities.
- Security cooperation should aim at enhancing mutual trust, confidence-building measures, joint exercises, information sharing, and interoperability among the IOR countries.
- Economic integration should focus on promoting trade facilitation, infrastructure development, connectivity projects, energy cooperation, and blue economy initiatives among the IOR countries.
- Cultural connectivity should foster people-to-people exchanges, educational linkages, tourism promotion, and cultural diplomacy among the IOR countries.
- Institutional collaboration should strengthen existing regional mechanisms such as IORA, IONS, IOC, etc., as well as explore new avenues for dialogue and partnership among the IOR countries.

Conclusion

- The Indian Ocean region has immense potential for growth and development in the 21st century. However, it also faces complex and interrelated challenges that require collective action and collaborative solutions. By strengthening regional mechanisms and institutions, enhancing bilateral and

multilateral partnerships, and fostering a culture of cooperation and trust among all stakeholders, the region can overcome these challenges and realize its full potential.

2.10 INTERNATIONAL NORTH-SOUTH TRANSPORT CORRIDOR (INSTC)

Context

- An agreement was signed between Russia and Iran to finance and construct a railway line in Iran that will be part of the International North–South Transport Corridor (INSTC).

Details

- Russia and Iran have signed an agreement to develop a railway corridor that would connect the two countries and provide an alternative route to the Suez Canal for transporting goods between Asia and Europe.
- The deal aims to boost trade and economic cooperation between the two allies and enhance their regional influence.

The main features of the project are

Rail infrastructure

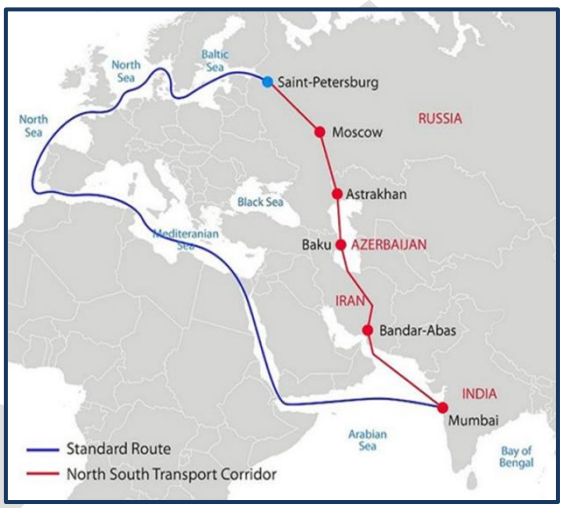
- The railway corridor would run from the **Iranian port of Bandar Abbas on the Persian Gulf** to the **Russian port of Astrakhan on the Caspian Sea**, and then connect to the existing North-South Transport Corridor (NSTC) that **links Russia, Iran, Azerbaijan, and India.**
- The project would also involve upgrading the existing rail infrastructure and building new terminals and logistics centres along the route.

A faster and cheaper way of transporting goods

- The project would provide a faster and cheaper way of transporting goods between Asia and Europe, bypassing the congested and costly Suez Canal, which has been plagued by security and environmental issues in recent years.

Strengthen the strategic partnership between Russia and Iran

- The project would strengthen the strategic partnership between Russia and Iran, which have been cooperating on various political and military issues in the Middle East, such as the Syrian civil war and the Iranian nuclear deal.



Others

- The project would also enhance their bargaining power vis-à-vis other regional actors, such as Turkey, Saudi Arabia, and Israel.
- The project would create new opportunities for trade and investment for both countries, which have been suffering from the impact of US sanctions and the COVID-19 pandemic.

INSTC has several advantages for the regional and global economy

- It can enhance connectivity and integration among the countries along the corridor, especially in terms of energy, trade, and tourism.
- It can provide an alternative route to the traditional sea route via the Suez Canal, which is longer, more expensive, and more vulnerable to geopolitical risks.
- It can contribute to the development of landlocked countries such as Afghanistan and Central Asian republics by improving their access to international markets.

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International North-South Transport Corridor (INSTC)

- The INSTC is a 7,200-km-long multi-modal network of ship, rail, and road routes for moving freight between India, Iran, Azerbaijan, Russia, Central Asia and Europe.
- The project was initiated by Russia, India and Iran in 2000 and has since expanded to include 13 other members.
- The main objective of the INSTC is to facilitate trade and transit between the participating countries by reducing the time and cost of transportation.

The main challenges of the project are

Security

- The security situation in Iran and its neighbouring countries, which have been experiencing political instability, social unrest, and terrorist attacks.
- The railway corridor would have to cross several conflict zones and potential flashpoints, such as Iraq, Afghanistan, Pakistan, and Nagorno-Karabakh.

Finance

- The financing of the project, which is estimated to cost around $7 billion. Both Russia and Iran have limited resources and face difficulties in accessing international loans due to US sanctions.
- They would have to rely on their funds or seek support from other partners, such as China or India.

Coordination and Cooperation

- The coordination and cooperation among the various stakeholders involved in the project, such as governments, railways, ports, customs authorities, and private companies.
- The project would require harmonizing technical standards, legal frameworks, tariffs, and regulations across different countries and regions.

INSTC also faces several challenges that hinder its full implementation and operation. Some of these challenges are

Infrastructure and Coordination

- Lack of adequate infrastructure and coordination among the different modes of transport along the corridor.
- For instance, there are gaps in rail connectivity, especially in Iran and Azerbaijan, which require transhipment and customs clearance at multiple points.
- There are also differences in technical standards, regulations, and tariffs among the countries involved.

Security Issues

- Political and security issues that affect the stability and safety of the corridor. For example, the US sanctions on Iran have hampered its participation in the INSTC and created uncertainties for other partners.
- The ongoing conflicts in Afghanistan and Syria also pose threats to the security of some segments of the corridor.

Competition

- Competition from other transport corridors that offer similar or better services and benefits. For instance, China's Belt and Road Initiative (BRI) has been expanding its influence and investment in Eurasia, creating rivalries and overlaps with the INSTC.
- The BRI also offers more financial and technical assistance to the countries along its routes than the INSTC.

The way forward for the INSTC is to address these challenges and enhance its attractiveness and viability as a regional transport corridor. Some of the possible measures are

Infrastructure and Connectivity

- Improving the infrastructure and connectivity along the corridor by investing in modernization, standardization, and harmonization of facilities and systems.
- This would require more coordination and cooperation among the stakeholders, as well as mobilizing funds from various sources such as multilateral institutions, the private sector, and regional organizations.

Security

- Resolving the political and security issues that affect the corridor by engaging in dialogue

and confidence-building measures among the concerned parties.
- This would require more political will and commitment from the leaders of the participating countries, as well as support from the international community.

Synergy with other transport corridors

- Promoting the complementarity and synergy between the INSTC and other transport corridors such as the BRI by identifying areas of common interest and mutual benefit.
- This would require more communication and collaboration among the different initiatives, as well as avoiding unnecessary competition and confrontation.

India and International North-South Transport Corridor (INSTC)

The INSTC has several advantages for India's economic and strategic interests

- It **provides an alternative route to the traditional sea route via the Suez Canal**, which is longer, more expensive, and more vulnerable to piracy and geopolitical tensions.
- It **enhances India's connectivity and cooperation with Iran,** a key partner for India's energy security and regional stability.
- It **opens up new markets and opportunities for Indian businesses** in Central Asia, Russia, and Europe, which are rich in natural resources and potential customers.
- It **strengthens India's role as a regional power** and a bridge between Asia and Europe.

Some of the steps that India can take are

- **Increase its political and diplomatic engagement with the INSTC member countries** to build trust and consensus on the corridor's vision and objectives.
- **Enhance its financial and technical assistance to the INSTC member countries** to support their infrastructure development and capacity building.
- **Promote its trade and investment ties with the INSTC member countries** to create mutual interests and incentives for the corridor's success.
- **Strengthen its security cooperation** with the INSTC member countries to address the common threats and challenges along the corridor.
- **Collaborate with other stakeholders** such as China, Pakistan, Afghanistan, Turkey, and the European Union to create synergies and complementarities among different transport corridors.

Conclusion

- The INSTC is a strategic project that can bring significant benefits to India, Iran, Russia, and other Eurasian countries in terms of trade, transit, and development. However, it also faces many challenges that need to be overcome to realize its full potential. The success of the INSTC depends on how well it can address these challenges and leverages its advantages in a changing regional and global context.

2.11 INDIA-EU TRADE AND TECHNOLOGY COUNCIL

Context

- The first Ministerial meeting of India- European Union Trade and Technology Council (TTC) was organized in Brussels, Belgium on 16th May 2023.

India- European Union Trade and Technology Council (TTC)

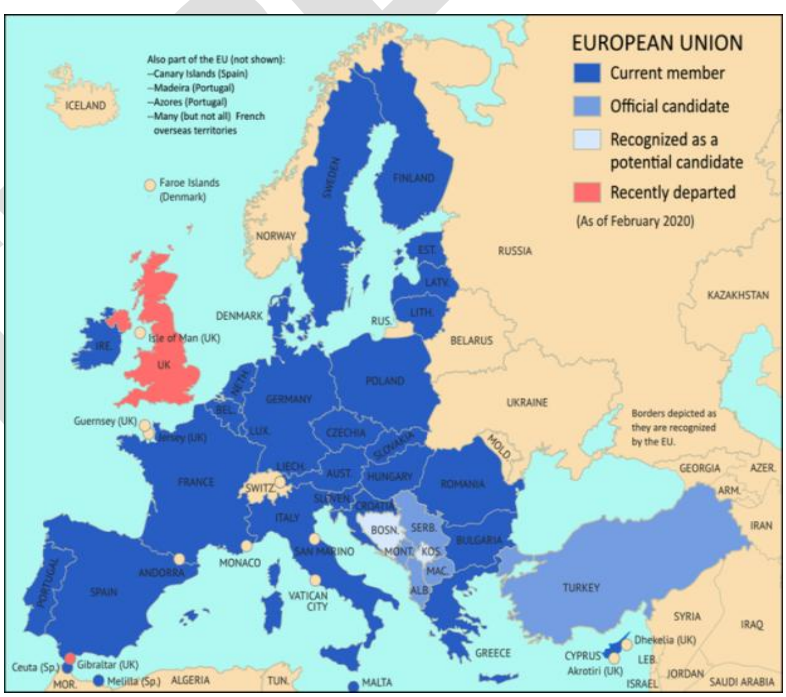
About

- It is a strategic coordination framework to enhance and deepen bilateral cooperation between India and the European Union (EU) in the areas of trade, trusted technology and security.
- It was launched by Prime Minister Narendra Modi and European Commission President Ursula von der Leyen in April 2022, during the latter's visit to India.

- The first ministerial meeting of the TTC was held in Brussels on 16 May 2023, co-chaired by representatives from both sides.

Aim of TTC

- It aims to foster a rules-based, transparent and fair global trade and technology environment that benefits India and the EU as well as the rest of the world.
- It aims to create a high-level coordination platform to tackle strategic challenges at the nexus of trade, trusted technology and security.



Working area

- The TTC has three working groups that focus on different aspects of trade and technology cooperation:
  - Working Group on Strategic Technologies, Digital Governance and Digital Connectivity
  - Working Group on Green and Clean Energy Technologies
  - Working Group on Trade, Investment and Resilient Value Chains

Highlights of the ministerial meeting of the TTC

- The first ministerial meeting of the TTC reviews the progress made by these working groups since their inception and discusses the roadmaps for future cooperation between the two sides.
- The meeting addressed some of the key challenges and opportunities that India and the EU face in the domains of trade and technology, such as:
  - **How to foster a level playing field and fair competition in the digital economy**, while ensuring data protection, privacy and security for citizens and businesses.

- **How to promote innovation and collaboration in emerging technologies** such as artificial intelligence, quantum computing, block chain, biotechnology and 5G/6G, while addressing ethical, legal and social implications.
- How to enhance connectivity between India and Europe through digital infrastructure, e-commerce, e-governance and e-health services.
- **How to accelerate the transition to a green and circular economy**, while ensuring energy security, affordability and access for all.
- How to diversify and strengthen trade and investment relations, while reducing barriers and enhancing market access for goods and services.
- How to build resilient and sustainable value chains that are inclusive, diversified and compliant with environmental, social and governance standards.

The outcome of the TTC ministerial meeting

- A joint statement was released that outlined the achievements, priorities and action plans for India-EU trade and technology cooperation.
- The statement reaffirms the commitment of both sides to work together as strategic partners for a rules-based international order that upholds democracy, human rights, multilateralism and global public goods.

The TTC is expected to bring several benefits for both parties, such as:

- **Strengthening the rules-based global order** and promoting a human-centric approach to digital transformation.
- Supporting economic recovery and resilience in the post-pandemic scenario and creating new opportunities for trade and investment.
- **Enhancing collaboration on strategic technologies**, such as artificial intelligence, quantum computing, cyber security, green hydrogen, etc., and ensuring their ethical and secure use.
- Fostering digital connectivity and governance, based on principles of openness, transparency, inclusiveness and sustainability.
- **Advancing cooperation on climate change** and clean energy transition, in line with the Paris Agreement and the 2030 Agenda for Sustainable Development.
- Building resilient and diversified value chains and reducing dependence on third countries.

Significance

- The TTC reflects the shared values and common interests of India and the EU, as well as their desire to guide their cooperation towards tangible results and address the challenges posed by a rapidly evolving and contested international environment.
- It will also complement and reinforce other existing mechanisms of dialogue and cooperation between India and the EU, such as;
  - High-Level Dialogue on Trade
  - High-Level Dialogue on Climate Change
  - Joint Working Group on Counter-Terrorism
  - Security Dialogue
- It will also pave the way for further engagement between India and the EU at various levels, including the upcoming summit between Prime Minister Modi and President von der Leyen later this year.
- It will also contribute to shaping a common vision and agenda for India-EU cooperation in multilateral fora such as the G20, the UN, the WTO, the WHO and the COP26.

Future measures to be taken

- The TTC is a novel and ambitious initiative that seeks to address some of the most pressing issues of the 21st century. However, it also faces some challenges and obstacles that need to be overcome for its successful implementation.

- Resolving the longstanding trade disputes between India and the EU, such as on market access, tariffs, subsidies, intellectual property rights, etc., and concluding a comprehensive free trade agreement (FTA) that is mutually beneficial and balanced.
- **Harmonizing the regulatory frameworks and standards** on data protection, privacy, digital taxation, etc., and ensuring interoperability and compatibility of digital systems and platforms.
- Developing a common understanding and approach on emerging technologies, such as 5G, 6G, block chain, etc., and addressing the risks of cyber attacks, disinformation, espionage, etc.
- Leveraging the complementarities and synergies between the TTC and other existing or proposed mechanisms of cooperation, such as the EU-India Connectivity Partnership, the EU Strategy for Cooperation in the Indo-Pacific, the EU-US TTC, etc.
- **Engaging with other stakeholders**, such as civil society, academia, industry, etc., to ensure their participation and contribution to the TTC's objectives and activities.

Conclusion

- The TTC is a significant milestone in India-EU relations that has the potential to transform their strategic partnership into a force for good in the world. It is also a reflection of their mutual recognition of each other's potential as major economic actors, technological innovators and global leaders. By working together through the TTC, India and the EU can leverage their strengths and synergies to create new opportunities for growth, development and prosperity for themselves and others.

2.12 G7 SUMMIT 2023

Context

- Prime Minister of India visited Japan on May 19 to attend the annual summit of the G7 grouping during which he exchanged views with world leaders on global challenges and discuss ways to collectively address them.

Details

- The G7 summit was held on May 19-20 in Tokyo, with the participation of leaders from Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
- India was invited as a guest country along with Australia, South Africa, and South Korea.

The G7 Summit 2023 was significant for several reasons

- It marked the first visit by an Indian prime minister to Hiroshima since India conducted nuclear tests in Pokhran in 1974.
- The **presence of India at the summit signalled India's willingness to cooperate with the G7 on issues such as nuclear disarmament, non-proliferation and energy security.**
- It was the first G7 summit since the outbreak of the COVID-19 pandemic, which had a devastating impact on global health and the economy. The summit aimed to coordinate efforts to recover from the crisis and prevent future pandemics.

The G7 Summit 2023 also faced several challenges

- One of the main challenges was **how to deal with the ongoing conflict in Ukraine, where Russia-backed separatists continued to fight against the Ukrainian government forces despite a ceasefire agreement.**
  - The G7 leaders expressed their strong support for Ukraine's sovereignty and territorial integrity and pledged to provide more weapons deliveries, political support and financial assistance.
  - They also agreed to intensify sanctions on Russia and its allies for violating international law and human rights.
- Another challenge was **how to address the rising tensions between China and the U.S., which had escalated over trade disputes, human rights abuses, cyberattacks and territorial claims in the Indo-Pacific region.**
  - The G7 leaders reaffirmed their commitment to a free and open Indo-Pacific and opposed any unilateral

attempts to change the status quo by force or coercion.
    - They also called for dialogue and cooperation with China on areas of common interest such as climate change and global health.
- The G7 has to deal with the challenges of climate change and biodiversity loss; the instability and violence in regions such as Afghanistan, Myanmar and Ethiopia; and the erosion of trust and cooperation in multilateral institutions.

The main themes of the summit were

- **Supporting Ukraine in its struggle against Russian aggression** and strengthening disarmament and non-proliferation efforts towards a world without nuclear weapons.
- **Enhancing economic resilience and security** through diversification and partnership, rather than decoupling.
- **Accelerating the transition to clean energy economies** and launching initiatives for resilient global food security and quality infrastructure investment.
- **Investing in global health** through vaccine manufacturing capacity, pandemic prevention and response, and universal health coverage.
- **Promoting inclusive artificial intelligence governance** and interoperability based on shared democratic values.

The G7 summit 2023 also outlined a way forward for a better future

The summit issued a communiqué titled "G7 Hiroshima Leaders' Communiqué", which outlined concrete steps to achieve various goals such as:

- Strengthening disarmament and non-proliferation efforts.
- Driving the transition to clean energy economies.
- Launching the Hiroshima Action Statement for Resilient Global Food Security.
- Delivering $600 billion in financing for quality infrastructure.
- Investing in global health through vaccine manufacturing capacity.
- Cooperating on international migration.
- Advancing inclusive artificial intelligence governance.

The summit also announced several initiatives such as:

- Just Energy Transition Partnerships
- Climate Club
- Country Packages for Forest
- Nature and Climate
- Pandemic Fund
- Future International Agreement for Pandemic Prevention
- Preparedness and Response
- Partnership for Global Infrastructure Investment

G7 Summit

About

- The G7 Summit is an annual meeting of the leaders of seven major industrialized democracies: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.
- The summit also invites representatives from the European Union and other guest countries to discuss global issues of common interest.

Origin and Evolution

- The origin of the G7 dates back to 1973 when the first meeting of finance ministers from six countries (excluding Canada) was held in response to the oil crisis and the instability of the international monetary system.
- The first summit of heads of state and government took place in 1975 in France, and Canada joined the group in 1976.
    - Since then, the G7 has evolved into a forum for addressing various challenges such as economic growth, trade, security, climate change and development.
- Russia was added in 1997, forming the G8. However, **Russia was suspended in 2014 after it annexed Crimea and interference in Ukraine**. Since then, the group has reverted to the G7 format and has focused on a broader range of topics beyond economics, such as security, climate change, health and human rights.

What is the purpose of the G7 summit?

- The G7 summit is an opportunity for the leaders of these countries to exchange views, build trust and forge common positions on global issues.
- It is also a platform for them to communicate with the public and the media about their vision and actions.
- The G7 summit is not an end in itself, but a means to an end. The success of the G7 depends on how well it can translate its words into deeds and how well it can cooperate with other partners to address the challenges that face humanity.

Significance of the G7

- The significance of the G7 lies in its ability to coordinate policies and actions among its members and beyond.
- The G7 represents about half of the global economy and has a strong influence on international institutions such as the United Nations, the World Bank and the International Monetary Fund.
- The G7 also provides a platform for dialogue and cooperation with emerging powers and developing countries on key global issues.

Challenges and Way Forward

- The G7 is **not a formal institution with a permanent secretariat and nor a binding legal framework.**
- It relies on consensus and coordination among its members to achieve its goals.
- The G7 also faces criticism for being an exclusive club of wealthy nations that does not reflect the diversity and complexity of the world. Some have called for expanding or reforming the G7 to include other countries or regions, such as China, India, Africa or Latin America.
    - Others have questioned the relevance and effectiveness of the G7 in a multipolar world where new actors and challenges have emerged.

The increasing footprint of China

- China's growing influence and assertiveness in areas such as trade, technology, human rights, security and global governance have posed serious challenges to the G7's interests and values.
- **The G7 has tried to adopt a united approach to China, calling for diversifying supply chains, promoting democratic norms, supporting Taiwan and Hong Kong**, and countering China's Belt and Road Initiative with its Partnership for Global Infrastructure Investment (PGII) programme.
    - However, there are also differences among the G7 members on how to engage with China, as some of them have more economic ties and dependencies on China than others.
- Therefore, the G7 needs to balance its competition and cooperation with China and find areas of common interest where they can work together, such as on climate change, public health and non-proliferation.

Recover from the COVID-19 pandemic

- Another challenge for the G7 is how to recover from the COVID-19 pandemic, which has caused unprecedented health and economic crises around the world.
- **The G7 has pledged to support global vaccination efforts, provide debt relief for developing countries**, and reform the World Health Organization (WHO) to improve its preparedness and response capabilities.
    - However, there are also concerns about vaccine nationalism, protectionism and inequality among the G7 members and beyond.
- The G7 needs to ensure that its recovery is inclusive, sustainable and resilient and that it addresses the root causes of the pandemic, such as environmental degradation, wildlife trade and zoonotic diseases.

How to tackle climate change

- The challenge for the G7 is how to tackle climate change, which is one of the most urgent and existential threats facing humanity.
- The G7 has committed to achieving net zero emissions by 2050, phasing out coal power generation, ending fossil fuel subsidies, increasing climate finance and supporting

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developing countries in their adaptation and mitigation efforts.
    - However, there are also gaps between their pledges and actions, as well as between their responsibilities and capabilities.
- The G7 needs to demonstrate its leadership and credibility on climate action by implementing its commitments effectively, enhancing its ambition and transparency, and engaging with other major emitters such as China and India.

India and G7

- India has been invited to participate in the G7 summits for the fourth time in a row, reflecting its growing importance as a global player and a partner for the West.
- The **significance of India's presence at the G7 summits lies in its ability to contribute to the global agenda and offer its perspective on various challenges facing the world today.**
    - India is the world's fifth-largest economy, the second-most populous country and the largest democracy.
    - It has a strong track record of economic growth, poverty reduction, innovation and social development.
    - It also has a vital role in regional and international security, as well as in promoting multilateralism and a rules-based order.

Some of the key challenges that India and the G7 face together include:

The Rise of China and its Implications

- China's growing economic, military and diplomatic influence poses a strategic challenge to the G7 countries and their allies.
    - China's assertive behaviour in the Indo-Pacific region, its human rights violations in Xinjiang and Hong Kong, its trade practices and its lack of transparency on COVID-19 have raised concerns among the G7 countries.
- G7 has agreed to counter China's unfair practices and promote a free and open Indo-Pacific based on democratic values and respect for international law.
- India shares these concerns and has been a vocal advocate of the Indo-Pacific concept. It has also been involved in various regional platforms such as the Quad, ASEAN and BIMSTEC to enhance cooperation and stability in the region.

The Climate crisis and its impact

- The G7 countries are among the largest emitters of greenhouse gases and have a responsibility to lead by example in tackling climate change.
    - They have pledged to achieve net zero emissions by 2050 and to increase their climate finance contributions to developing countries.
    - They have also endorsed a green recovery from the pandemic that would create jobs, reduce inequality and foster innovation.
- India has also shown leadership in climate action by setting ambitious targets for renewable energy, afforestation and electric mobility. It has also launched several global initiatives such as the International Solar Alliance, the Coalition for Disaster Resilient Infrastructure and the Leadership Group for Industry Transition.

Way Forward for India

- The way forward for India and the G7 is to build on their convergences and complementarities on these and other issues of mutual interest.
- India can offer its expertise, experience and resources to help address some of the common challenges facing the world today. It can also benefit from the G7's support for its development goals, especially in areas like infrastructure, technology, education and health.
- India can also leverage its participation at the G7 summits to enhance its bilateral relations with each of the member countries, as well as with other guests.

Conclusion

- The G7 faces multiple challenges in a changing world order that requires more cooperation and coordination among its

members and with other actors. The G7 has an opportunity to play a positive role in shaping a more peaceful, prosperous and sustainable future for itself and others. However, it also needs to overcome its internal divisions and external pressures and adapt to new realities and expectations.

2.13 G20 DISASTER RISK REDUCTION WORKING GROUP

Context

- The First G20 Disaster Risk Reduction Working Group (DRR WG) meeting under India's G20 Presidency took place, where India highlighted the importance of Disaster Risk Reduction (DRR).

Details

- The main agenda of the meeting was to discuss the progress and challenges in implementing the Sendai Framework for Disaster Risk Reduction 2015-2030, which is a global agreement to reduce disaster risk and build resilience.

The five priorities outlined by the working group are:

1. **Global Coverage of Early Warning Systems**
2. **Increased commitment towards making infrastructure systems disaster resilient**
3. **Stronger national financial frameworks for DRR**
4. **Strengthened national and global disaster response system**
5. **Increased application of ecosystems-based approaches to DRR**

Need for Creating a Collective G20 Framework for Disaster Risk Reduction

- The G20 nations, with a population of 4.7 billion, have a large exposure, risk from asset concentration, and vulnerability to natural disasters.
- In the current World Risk Index, four out of the top 10 vulnerable countries are G20 nations. The combined estimated annual average loss in the G20 countries alone is USD 218 billion (9% of the average annual investment in infrastructure).

Some of the key strategies for reducing disaster risk are:

Understanding disaster risk

- This involves collecting and analysing data on hazards, exposure, vulnerability, and capacity at different scales and sectors. It also involves communicating and disseminating risk information to relevant stakeholders and raising awareness among communities.

Investing in disaster risk reduction

- This involves allocating adequate resources for implementing disaster risk reduction policies, plans, programmes, projects, and actions. It also involves enhancing financial protection against disasters through risk transfer and insurance mechanisms.

Strengthening governance for disaster risk reduction

- This involves establishing clear roles and responsibilities for disaster risk reduction at all levels of government and across sectors. It also involves enhancing institutional capacities, legal frameworks, regulations, standards, accountability mechanisms, and coordination platforms for disaster risk reduction.

Enhancing disaster preparedness and response

- This involves developing and implementing contingency plans, standard operating procedures, emergency protocols, and drills for different types of disasters. It also involves establishing and maintaining emergency facilities, equipment, supplies, and personnel for effective disaster response.

Building back better in recovery and reconstruction

- This involves incorporating disaster risk reduction principles and practices into post-disaster recovery and reconstruction processes.

Some of the initiatives for disaster risk reduction are:

The Sendai Framework for Disaster Risk Reduction 2015-2030

- This is a global agreement that aims to reduce disaster risk and losses in lives, livelihoods, health, and assets. It has four priorities for action: understanding disaster risk, strengthening disaster risk governance, investing in disaster risk reduction, and enhancing disaster preparedness. It also has seven global targets and 38 indicators to measure progress.

The Global Platform for Disaster Risk Reduction

- This is a biennial forum that brings together stakeholders to review progress, share knowledge, and discuss challenges and opportunities in disaster risk reduction.

The Coalition for Disaster Resilient Infrastructure (CDRI)

- This is an international partnership that aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks. It was launched by India at the UN Climate Action Summit in 2019.
- It has four thematic areas: risk identification and estimation, standards and regulation, finance and investment, and recovery and reconstruction.

The ARISE Network

- This is a network of private sector entities that are committed to implementing the Sendai Framework and advancing disaster risk reduction. It was established by the UN Office for Disaster Risk Reduction (UNDRR) in 2015.
- It has seven work streams: disaster risk management strategies, investment metrics, benchmarking and standards, education and training, legal and regulatory frameworks, urban risk reduction and resilience, and insurance.

India's G20 presidency can show the way in disaster management

- India's presidency of the G20 in 2023 is a historic opportunity for India to showcase its leadership and vision on the global stage, especially in the face of the unprecedented challenges posed by the COVID-19 pandemic and climate change. One of the key areas where India can make a difference is disaster management.
- India is no stranger to natural disasters, having faced cyclones, floods, droughts, earthquakes and landslides in recent years. According to the Economic Survey 2020-21, **India incurred an average annual economic loss of $79.5 billion due to natural disasters between 1998 and 2019.**
    - The survey also highlighted that India's disaster management framework needs to shift from a relief-centric approach to a more holistic one that encompasses prevention, mitigation, preparedness and recovery.

Some of the possible steps that India can initiate are

Strengthening global cooperation and coordination on disaster risk reduction and resilience

- India can leverage its experience and expertise in disaster management to facilitate the exchange of best practices, technologies and resources among the G20 members and other developing countries.
- India can also promote the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.

Enhancing the financing and insurance mechanisms for disaster risk management

- India can advocate for increasing the availability and accessibility of financial resources for disaster prevention and recovery, especially for low-income and vulnerable countries.
- India can also encourage the development and adoption of innovative insurance solutions.

Integrating disaster risk reduction into development planning and policies

- India can emphasize the need for mainstreaming disaster risk reduction into all aspects of development, such as infrastructure, agriculture, health, education and environment.
- India can also urge the G20 members to align their national development plans with the SDGs and the Paris Agreement.

Investing in disaster risk assessment and early warning systems

- India can propose to enhance the capacity and quality of disaster risk assessment and early warning systems at the global, regional and national levels.

Building a culture of disaster preparedness and awareness among people

- India can suggest fostering a culture of disaster preparedness and awareness among people through education, training, awareness campaigns and community participation.

Conclusion

- Disasters can have significant impacts on global stability, security, development, and sustainability. They can undermine the achievement of the SDGs and the Paris Agreement on climate change. They can also exacerbate existing inequalities, poverty, conflicts, and displacement. Therefore, there is a need for creating a collective G20 framework for disaster risk reduction that can address these challenges and foster a culture of prevention and resilience.

2.14 REFORMING UNSC AND BRETTON WOODS

Context

- In his address to the General Assembly, UN Secretary-General Antonio Guterres called for urgent reforms of the UN Security Council and the Bretton Woods institutions, saying that they no longer reflect the realities of the 21st century.

Details

UN Security Council

- Guterres said that the Security Council must become more representative, transparent and effective and that it must overcome the divisions that have prevented it from addressing the most pressing challenges of our time, such as climate change, terrorism, cyber attacks and pandemics.

Bretton Woods system

- He also criticized the Bretton Woods system, which was established after World War II to regulate the international monetary and financial order.
- The system includes the International Monetary Fund (IMF), the World Bank and other multilateral institutions that provide loans, grants and technical assistance to developing countries.
- Guterres said that the Bretton Woods system is outdated and unfair, as it does not give enough voice and influence to emerging economies and developing countries.
- He said that the system must be reformed to ensure a more equitable distribution of resources and opportunities and to foster global solidarity and cooperation.
- He urged the member states of the UN to embrace a new vision of multilateralism, based on inclusivity, equality and human rights.

Why Need to Reform the UN Security Council?

- The **UNSC has been widely criticized for being outdated, unrepresentative and ineffective**.

The reform of the UNSC should address the following aspects:

Expansion in permanent and non-permanent seats

- Many countries and regions feel marginalized and voiceless in the face of global challenges that affect them.

Question of the veto

- The veto power of the permanent members often paralyzes the Council and prevents it from taking timely and decisive action. The reform should consider limiting or abolishing the veto, especially in cases of mass atrocities.

Regional representation

- The current composition of the Council does not reflect the geopolitical realities of the 21st century. The reform should ensure a fair and balanced representation of all regions, especially Africa, Asia and Latin America.

Working methods

- The working methods of the Council are also opaque and exclusive, limiting the participation and accountability of other UN organs and stakeholders. The reform should make the Council more transparent, inclusive and consultative.

Relationship with the General Assembly

- The General Assembly is the most representative and democratic organ of the UN, but its role and influence in relation to the Council are often undermined. The reform should strengthen the cooperation and coordination between the two organs.

What are the hurdles in reforming the UN Security Council?

- It has faced many obstacles and resistance, especially from the permanent members who fear losing their privileges and influence.
- **The General Assembly has always been very much divided**. Among the 193 countries, there are five negotiating groups and they are neutralising each other. These groups are:
  - **The Group of Four (G4):** Brazil, Germany, India and Japan, which seek permanent seats for themselves on an expanded Security Council.
  - **The Uniting for Consensus (UfC) group:** Led by Italy, Pakistan, Argentina and Mexico, which opposes any new permanent seats and favours a modest increase in non-permanent seats.
  - **The African Group:** Represented by the Committee of Ten (C-10), this demands two permanent seats and two additional non-permanent seats for Africa, with full veto power.
  - **The Arab Group:** The group calls for at least one permanent seat for an Arab country, preferably Egypt or Saudi Arabia.
  - **The Small and Medium States:** These have diverse views on reform but generally advocate for more equitable geographical distribution and greater transparency in the Council's work.

Why Need to Reform the Bretton Woods System?

The Bretton Woods system was successful in promoting trade and economic growth in the post-war era, but it also faced several challenges and limitations. Some of these challenges were:

- The system was asymmetric, as it imposed more discipline on deficit countries than on surplus countries, creating global imbalances and tensions.
- The system was rigid, as it did not allow for sufficient adjustment of exchange rates to reflect changing economic conditions and competitiveness.
- The system was vulnerable, as it depended on the credibility and stability of the US dollar, which came under pressure in the 1960s and 1970s due to inflation and fiscal deficits.
- The system was incomplete, as it did not cover important areas such as capital flows, financial regulation, development assistance, and environmental issues.
- These challenges led to the collapse of the Bretton Woods system in the early 1970s when the US abandoned the gold convertibility of the dollar and most countries adopted floating exchange rates. Since then, the international monetary system has evolved into a hybrid system of floating rates, regional arrangements, and ad hoc cooperation.

However, this system is also facing new challenges and uncertainties in the 21st century. Some of these challenges are:

- The system is unbalanced, as it reflects the dominance of a few major currencies and economies, especially the US dollar and China, creating risks of instability and conflicts.
- The system is unstable, as it is prone to volatile capital flows, currency crises, and financial contagion, especially in emerging and developing countries.
- The system is unequal, as it does not provide adequate voice and representation for all countries, especially low-income and small states, in global economic governance.

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- The system is unsustainable, as it does not address the long-term challenges of climate change, poverty reduction, and inclusive growth.

Therefore, there is a need to reform the Bretton Woods system to make it more balanced, stable, equal, and sustainable. Some possible ways forward are:

- To enhance the role and use of special drawing rights (SDRs) as a global reserve asset that can supplement national currencies and reduce dependence on the US dollar.
- To **strengthen the surveillance and policy coordination** functions of the IMF to promote exchange rate stability and macroeconomic cooperation among countries.
- To reform the governance and quota structure of the IMF and the World Bank to increase their legitimacy and accountability and reflect the changing global economic landscape.
- To expand the scope and effectiveness of development finance and assistance by mobilizing more resources and improving their allocation and delivery.
- To **integrate environmental and social issues** into the agenda and operations of the Bretton Woods institutions to support green and inclusive growth.

Summary

- Both the UN Security Council and the Bretton Woods institutions reflect the power relations of 1945 when they were created after the Second World War. They do not adequately represent the diversity and dynamism of the current world, where new actors and challenges have emerged. They also suffer from a lack of legitimacy, accountability, transparency, and effectiveness in addressing global issues such as climate change, human rights, terrorism, migration, pandemics, and cyber attacks.
- Reforming these institutions is not an easy task, as it requires political will and consensus among various stakeholders with different interests and views. However, it is also an urgent and necessary one, as it can enhance their legitimacy, credibility, and effectiveness in fulfilling their mandates and serving the common good of humanity.

2.15 POLITICAL CRISIS IN PAKISTAN

Context

- Pakistan's political unrest is an ongoing political crisis that started after the arrest of former Prime Minister Imran Khan.

Details

Background

- The turmoil began in April 2022, when Khan lost a no-confidence motion in the National Assembly, which he refused to accept.
- He launched a series of protests and rallies across the country, demanding early elections and accusing the government of corruption and incompetence.
- The government responded by filing multiple cases against him and his supporters, ranging from terrorism to contempt of court.

Recent events

- The situation escalated when Khan was arrested by the police in Lahore on charges of inciting violence and attacking state institutions. His arrest sparked widespread outrage among his followers, who took to the streets and clashed with security forces.

The main actor involved in the political unrest are;

- **The Pakistan Democratic Movement (PDM):** The ruling alliance, which claims to represent the democratic will of the people and seeks to restore civilian supremacy over the military.
- **The Pakistan Tehreek-e-Insaf (PTI):** The opposition party was founded by Imran Khan in 1996. The PTI has a strong base among urban youth and middle-class professionals who are disillusioned with traditional parties.

- **The military:** The most powerful institution in Pakistan that has directly ruled the country for almost half of its history since independence in 1947. The military has also intervened indirectly in civilian affairs through coups, intelligence agencies, and alliances with political parties. The military is widely seen as backing Khan and his PTI against the PDM.
- **The judiciary:** The judiciary has often clashed with both civilian and military authorities over issues such as corruption, human rights, and constitutional amendments.
- **The media:** The media has played an important role in shaping public opinion and influencing political outcomes in Pakistan. The media is also divided into factions that support or oppose different political actors.
- **Civil society:** Civil society has often mobilized against authoritarianism, extremism, violence, and injustice in Pakistan. Civil society is also divided into factions that support or oppose different political actors.

The political unrest has had significant impacts on various aspects of Pakistan's society and economy:

- **Security:** The unrest has increased the risk of violence and instability in Pakistan, as clashes between protesters and security forces have resulted in deaths and injuries. The unrest has also strained Pakistan's relations with its neighbours, especially India and Afghanistan, as well as its allies, such as China and the United States.
- **Economy:** The unrest has worsened the economic situation in Pakistan, as the uncertainty and disruption have affected business confidence, investment, trade, and tourism. The unrest has also hampered the implementation of the IMF program. It has also increased the burden on the public finances.
- **Democracy:** The unrest has challenged the democratic system in Pakistan, as the legitimacy and authority of the elected government have been questioned and contested.
- **Society:** The unrest has affected the social fabric in Pakistan, as the divisions and tensions among different groups have increased. The unrest has also eroded the trust and tolerance among different communities, ideologies, and regions.

The scenarios for the future

- There are several possible scenarios for how the situation may evolve in the future:
  - The current stalemate continues, as neither side can gain a decisive advantage or make a significant concession.
  - Or, the situation deteriorates further, as one or more sides resort to more aggressive or violent actions.

How Political Unrest in Pakistan affects India and the way forward

Some of the effects are:

Increased cross-border infiltration and terrorism

- Pakistan has been accused by India of supporting militant groups that carry out attacks in India, especially in Kashmir. Moreover, the possibility of a military coup or a breakdown of civilian control over the nuclear arsenal may pose a serious threat to India's security.

Reduced trade and cooperation

- The political unrest in Pakistan hampers the prospects of dialogue and confidence-building measures between the two sides. The bilateral trade between India and Pakistan is estimated at only $2 billion per year, which is far below its potential.

Increased regional tension and rivalry

- Pakistan is an ally of China, which is India's main strategic competitor and rival. China has invested heavily in Pakistan's infrastructure and development projects. India views this as a threat to its sovereignty and security, as it passes through disputed territory in Kashmir.

The way forward for India and Pakistan is to resolve their differences through dialogue and diplomacy, rather than confrontation and violence. Some of the steps that could be taken are:

- Resuming the comprehensive bilateral dialogue process that was suspended after

the 2016 Uri attack in Kashmir. The dialogue should cover all outstanding issues, including Kashmir, terrorism, water sharing, trade, and people-to-people contacts.
- Enhancing confidence-building measures and cultural exchanges between the two countries, such as visa liberalization, sports events, academic collaborations, and media interactions.
- Supporting democratic institutions and civil society in Pakistan could foster a more moderate and stable political environment.
- Engaging with other regional and international actors, such as China, the US, Russia, and the UN, to facilitate dialogue and cooperation between India and Pakistan.

Conclusion

- The political deadlock in Pakistan has reached a critical point, as the former prime minister Imran Khan and his supporters continue to demand early elections, while the current government and the military resist their pressure. Analysts warn that if the deadlock is not resolved soon through dialogue and compromise, it could lead to more violence, chaos and instability in Pakistan.

2.16 SHORT TOPICS

"Laundromat" Countries

Context

- According to a report by the Centre for Research on Energy and Clean Air (CREA), the 'laundromat' countries are whitewashing Russian oil by processing it in their refineries and then exporting it to the European market at a premium.

Details

- The term 'laundromat' countries refer to a group of five nations that have been accused **of buying Russian crude oil and selling refined oil products to European countries,** thus bypassing the sanctions imposed on Russia by the G7 and the EU.
  - The **five countries are India, China, Turkey, UAE and Singapore.**
  - They are responsible for 70% of Russia's crude oil exports.

Background

- These countries are bypassing the G7 Oil Price Cap that has agreed to prohibit the import of crude oil and petroleum products of Russian origin above $60 per barrel.
  - The price cap was introduced in December 2022 as a response to Russia's invasion of Ukraine and its use of energy as a weapon.
- The laundromat countries have different motives for engaging in this practice.
- India, for example, is the largest consumer of seaborne Russian crude oil and has a strategic partnership with Russia. It has also remained non-committal on joining the price cap coalition.
- China, on the other hand, is Russia's biggest trading partner and has been expanding its energy cooperation with Moscow.
- Turkey, UAE and Singapore are also major importers of Russian oil and have strong economic ties with Europe.

India's Rationale for Buying Russian Oil

- India has never recognized Western sanctions against Russia, which were imposed after Moscow invaded Ukraine in February 2022.
  - India only accepts UN sanctions, which do not target Russia's oil sector. Therefore, India does not see any legal or moral obstacle in buying Russian oil, especially when it offers a significant price advantage over other sources.

Energy deficit Nation

- India is the world's third-largest oil consumer and importer, and relies on imports for about 85% of its oil needs.
- India's domestic oil production has been declining for years, while its demand has been growing steadily due to its economic development and population growth.
- India's oil import bill was $120 billion in 2022, accounting for about 20% of its total imports.

Diversify Market

- India is also keen to diversify its oil sources and reduce its dependence on the Middle East, which supplies about 60% of its oil imports.
- India has faced supply disruptions and price volatility from the region due to geopolitical tensions, conflicts, and production cuts by OPEC and its allies.
- India has also faced pressure from the US to reduce its oil imports from Iran and Venezuela, which are under US sanctions.

Reliable and affordable Supplier

- Russia has emerged as a reliable and affordable supplier of oil for India.
- Russia has ample reserves and production capacity and is willing to offer discounts and flexible terms to Indian buyers.
- Russia has also been expanding its pipeline and port infrastructure to facilitate exports to Asia.
- Russia's oil exports to Asia rose by 18% in 2022, reaching 1.4 million barrels per day.

Strategic Partnership

- India and Russia have also developed a strategic partnership that covers various areas of cooperation, such as defence, nuclear energy, space, trade, and investment.
- India sees Russia as a counterweight to China's growing influence in Asia and a partner in maintaining regional stability. India also values Russia's support on issues such as Kashmir, terrorism, and multilateralism.

Implications for India

- It raises several questions for India's energy security and foreign policy.
- On one hand, India could benefit from diversifying its sources of crude oil and reducing its dependence on West Asia, which accounts for about 60% of its imports.
    - India could also leverage its ties with Russia, which is a strategic partner and a major supplier of defence equipment, to secure favourable terms for its oil purchases.
- On the other hand, India could face diplomatic pressure and reputational damage from its Western allies, especially the US, which has been urging India to reduce its energy ties with Russia and Iran.
- India could also risk violating international law and norms by indirectly supporting Russia's aggression against Ukraine, which could have implications for regional stability and security.

Steps need to be taken by India to ensure energy Security

Increase domestic energy production

- India has significant potential to increase its domestic production of coal, oil, gas, nuclear and renewable energy sources. This would reduce its reliance on imports, which account for more than 80% of its oil consumption, 50% of its gas consumption and 25% of its coal consumption.
- Increasing domestic production would also create jobs, boost economic growth and improve trade balance. However, this would require addressing various challenges such as land acquisition, environmental clearance, infrastructure development, technology transfer and investment attraction.

Diversify energy sources and suppliers

- India should diversify its energy sources and suppliers to reduce its exposure to supply disruptions, price volatility and geopolitical risks. This would entail expanding its energy mix to include more renewable energy sources such as solar, wind, hydro and bioenergy, which are abundant, clean and cost-competitive.
- It would also entail diversifying its import sources and routes for oil and gas, such as exploring new markets in Africa, Latin America and Central Asia, and developing alternative transport options such as pipelines, railways and waterways.

Reform energy markets and regulations

- India should reform its energy markets and regulations to enhance competition, efficiency and transparency. This would involve implementing market-based pricing mechanisms for oil, gas and electricity, which would reflect the true cost of supply and demand and incentivize investment and innovation.

- It would also involve strengthening the regulatory framework for energy sector governance, which would ensure fair competition, consumer protection, quality standards and dispute resolution.

Integrate renewable energy into the grid

- India should integrate renewable energy into the grid to ensure a reliable and affordable power supply. This would require upgrading the transmission and distribution infrastructure, which is often congested, outdated and prone to losses.
- It would also require enhancing the flexibility and stability of the grid, which can be achieved by deploying smart grid technologies, energy storage systems, demand response mechanisms and grid interconnections.

Enhance resilience to climate change and geopolitical risks

- India should enhance its resilience to climate change and geopolitical risks that could affect its energy security. This would involve adapting to the impacts of climate change such as rising temperatures, changing rainfall patterns, extreme weather events and sea level rise, which could affect the availability and quality of water resources for power generation, agriculture and human consumption.
- It would also involve preparing for potential geopolitical risks such as conflicts, sanctions or embargoes that could disrupt oil or gas supplies from major exporters such as Iran or Saudi Arabia.

Conclusion

- India's role in the 'Laundromat' countries is a complex and controversial issue that requires careful analysis and balancing of its interests and values. India should be mindful of the potential consequences of its energy choices and seek to maintain a constructive dialogue with all its partners on this matter.

Title 42

Context

- The United States to lift COVID-19 restrictions "title 42" that have blocked migrants caught at the U.S.-Mexico border from seeking asylum since 2020, a major policy shift with humanitarian and political implications.

Details

About

- **Title 42 is a public health order that was issued by the Trump administration in March 2020** to expel migrants who crossed the U.S.-Mexico border without authorization, citing the risk of spreading COVID-19.
  - The order allowed border agents to bypass the normal asylum process and return migrants to Mexico or their home countries without due process or access to legal counsel.
- The Biden administration has continued to use Title 42 for most migrants, except for unaccompanied children and some families with young children.

Effect

- Title 42 is a public health order that was issued by the Centers for Disease Control and Prevention (CDC) in March 2020, in response to the COVID-19 pandemic.
  - **It allows the U.S. government to expel migrants who cross the border without authorization**, without giving them a chance to seek asylum or other forms of protection.
  - The order was based on the premise that migrants pose a risk of spreading the virus to border agents and communities.
- Since its implementation, **Title 42 has resulted in more than 1.7 million expulsions of migrants, mostly from Mexico and Central America.**
- The order has been widely criticized by human rights groups, lawyers, and advocates, who argue that it violates U.S. and international law, endangers migrants' lives, and undermines the right to seek asylum.

Why USA decided to end Title 42?

- The decision to end Title 42 came after months of pressure from human rights groups, immigration advocates, and some lawmakers, who argued that the order violated U.S. and international law and that it did not effectively prevent the spread of COVID-19.
    - They also pointed out that Title 42 had caused humanitarian crises on both sides of the border, as thousands of migrants were stranded in dangerous and unsanitary conditions in Mexico, or forced to make multiple attempts to cross the border.

What will change once Title 42 will be removed?

- The end of Title 42 means that **migrants who arrive at the U.S.-Mexico border will be able to seek asylum or other forms of protection in the U.S.**, as they were before the pandemic.
    - They will be processed under the existing immigration system, which involves screening interviews, background checks, court hearings, and potential detention or release. However, this system is already overwhelmed by a backlog of cases and a lack of resources and personnel.
- The Biden administration has said that it will implement a "streamlined" process for asylum seekers, which will prioritize those who are most vulnerable or have strong claims, and expedite their cases.
- The administration has also said that it will continue to work with Mexico and other countries in the region to address the root causes of migration and provide alternatives to irregular migration.

Implications

- The end of Title 42 will have significant **implications for both migrants and border security.**
- On one hand, **it will restore access to due process and humanitarian protection** for thousands of people fleeing violence, poverty, and persecution in their home countries.
- On the other hand, **it will pose challenges for managing a large influx of asylum seekers** at a time when the U.S. immigration system is already overwhelmed and under-resourced.

How can the USA address these challenges?

- The U.S. government will need to **adopt a comprehensive and humane approach to border management** that balances the protection of public health and national security with respect for human rights and dignity.
- **Expanding legal pathways for migration**, such as refugee resettlement, family reunification, and work visas, to reduce the pressure on irregular migration.
- **Enhancing cooperation** with Mexico and Central American countries, to address the root causes of migration, improve security and governance, and support regional solutions for refugees and displaced people.
- **Investing in infrastructure**, technology, and personnel at ports of entry and border stations, to facilitate efficient screening, processing, and adjudication of asylum claims.
- **Providing adequate shelter, health care**, and legal assistance to migrants while they await their immigration hearings, either in the U.S. or in Mexico under the Migrant Protection Protocols (MPP) program.
- **Developing alternatives to detention**, such as case management and community support programs, to ensure compliance with immigration proceedings without resorting to incarceration.
- **Strengthening integration services** and support for migrants who are granted asylum or other forms of relief, to help them achieve self-sufficiency and contribute to their new communities.

Conclusion

- The end of Title 42 is a significant change in U.S. immigration policy, and it will have implications for both migrants and border communities. It will likely increase the number of migrants who arrive at the border, as well as the challenges and opportunities for managing their reception and integration. It will also require a balance between respecting human rights and public health, as well as between humanitarian and security interests.

APTI PLUS

South Asia Gas Enterprise (Sage)

Context

- South Asia Gas Enterprise (SAGE) has aspired the support of the Ministry of Petroleum and others to develop an undersea gas pipeline from the Gulf to India.

Details

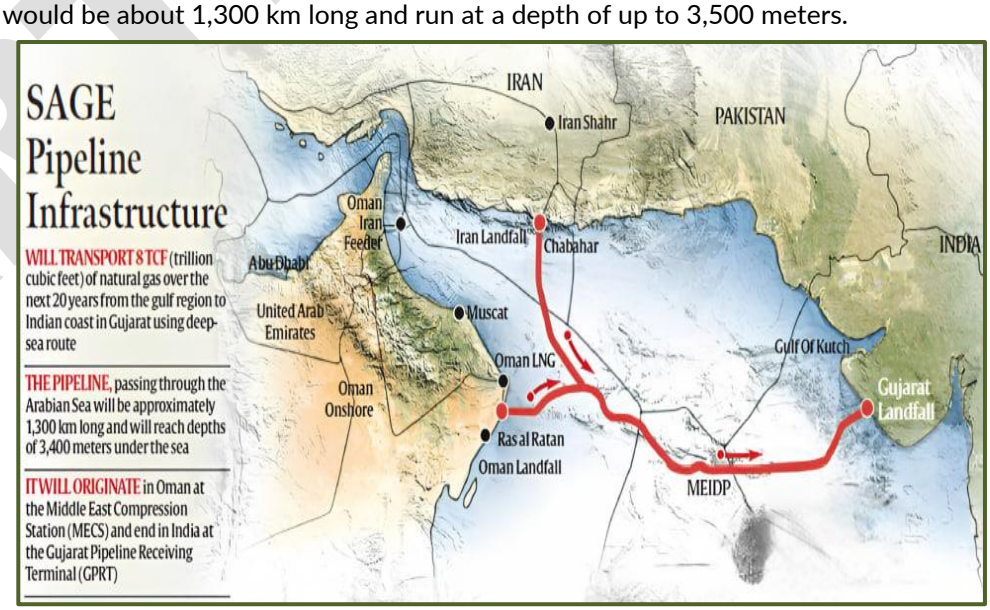
- The Gulf region is one of the world's largest producers and exporters of oil and gas, while India is one of the fastest-growing consumers and importers of energy. The demand for energy in India is expected to increase by 165% by 2040, according to the International Energy Agency (IEA).
- To meet this demand, South Asia Gas Enterprise (SAGE), an international consortium of companies in deepwater pipeline projects, has sought the support of the Ministry of Petroleum and others to develop an undersea gas pipeline from Gulf to India.

SOUTH ASIA GAS ENTERPRISE (SAGE)

- It is a **pipeline construction company that is working on a project to build the deepest underwater transnational gas pipeline in the world.**
  - The project, also known as the Middle East to India Deepwater Pipeline (MEIDP), aims to connect the gas-rich Gulf and Middle East regions to India, for the transportation of natural gas to secure India's energy needs.
  - The project is estimated to cost $5 billion and will establish a 2,000-km-long energy corridor through the Arabian Sea, bypassing geopolitically sensitive regions.
  - The pipeline will enable India to import gas from countries such as Oman, UAE, Saudi Arabia, Iran, Turkmenistan, and Qatar, which collectively possess significant gas reserves.
- SAGE is promoted by the New Delhi-based Siddho Mal Group, in a joint venture with a UK-based deepwater technology company.
- It is working with a global consortium of some of the most reputed companies in the field of deepwater pipelines, to create this multi-billion dollar energy corridor.

About the Project

- The proposed pipeline would be about 1,300 km long and run at a depth of up to 3,500 meters.
- It would have a capacity of 31 million cubic meters per day and cost around $4 billion.
- The **pipeline would connect the gas fields in Oman, Iran and Qatar with the west coast of India, bypassing the politically sensitive regions of Pakistan and Afghanistan.**



- The pipeline would also have the potential to supply gas to other countries in South Asia, such as Bangladesh and Sri Lanka.
- SAGE says that it has completed the feasibility study and the route survey for the project and is ready to start the construction once it gets the necessary approvals from the governments involved

Significance

- The **undersea gas pipeline would be cheaper, faster and more reliable than LNG imports or land-based pipelines.**
- **Enhancing energy security and reliability for India** by providing access to abundant and low-cost gas from the Gulf region.
- Reducing greenhouse gas emissions and air pollution by replacing coal and oil with cleaner-burning gas in power generation and other sectors.
- **Strengthening economic and strategic ties** between India and the Gulf countries by creating opportunities for trade, investment and cooperation.
- Supporting the development of gas-based industries and power plants in India, this can reduce greenhouse gas emissions and air pollution.
- **Creating employment opportunities** and economic growth in India, especially in the coastal regions.

Challenges

Technical challenges

- The project involves laying a pipeline at depths of up to 3,500 metres in the Arabian Sea, which poses engineering and operational challenges.
- The pipeline also needs to withstand harsh environmental conditions, such as high pressure, temperature, salinity and corrosion.
- The pipeline needs to comply with international standards and best practices for safety and environmental protection.

Commercial challenges

- The project requires a long-term commitment from both the gas suppliers and buyers, as well as a stable and predictable regulatory framework.
- It needs to secure adequate financing from various sources, such as equity, debt and export credit agencies.
- It needs to ensure its economic viability and competitiveness in the face of volatile gas prices and demand fluctuations.

Political challenges

- The project requires political and diplomatic support from both the Indian and Gulf governments, as well as other stakeholders involved in the project.
- It needs to obtain various approvals and clearances from different authorities and agencies in both regions.
- It needs to address any potential geopolitical or legal issues that may arise during its implementation.

Way Forward

- The way forward for the MEIDP is to overcome these challenges and uncertainties by engaging in constructive dialogue and collaboration among all the parties involved. SAGE has already initiated this process by conducting technical and financial feasibility studies for the project, as well as making presentations and representations to various gas suppliers in the Gulf and ministries in India. SAGE has also sought help from India's Ministry of Petroleum to develop the project.

Conclusion

- The undersea gas pipeline is a viable and beneficial option for both India and the Gulf countries. It can create a win-win situation for both sides by providing mutual benefits in terms of energy security, economic development and environmental sustainability. It can also serve as a model for other similar projects in other regions of the world.

New Visa Policy of US

Context

- The US has recently announced a new visa policy that allows the US to impose visa restrictions on individuals and their immediate family members who are responsible for or complicit in undermining the democratic election process in Bangladesh.

Details

The US visa policy for Bangladesh

- The US has recently announced a new visa policy that could affect Bangladesh's upcoming elections. The policy allows the US to impose visa restrictions on individuals and their immediate family members who are responsible for or complicit in undermining

the democratic election process in Bangladesh. This includes current and former officials, members of ruling and opposition parties, law enforcement personnel, judiciary and security services.

Why did the US adopt this policy?

Concerned about the state of democracy and human rights in Bangladesh

- The US has been concerned about the state of democracy and human rights in Bangladesh for a long time. The last two general elections in 2014 and 2018 were marred by allegations of rigging, violence, intimidation and repression of the opposition and civil society.
- The ruling Awami League led by Prime Minister Sheikh Hasina has been accused of becoming increasingly authoritarian, cracking down on dissent, media freedom and judicial independence.
- The opposition Bangladesh Nationalist Party (BNP) led by former Prime Minister Khaleda Zia has been virtually decimated, with many of its leaders in jail or exile on politically motivated charges.

Concerned about the growing influence of China in Bangladesh

- The US has also been worried about the **growing influence of China in Bangladesh**, which has emerged as a major economic partner and investor in the country.
- China has been providing loans, grants and technical assistance for various infrastructure projects, including a deep-sea port, a nuclear power plant and a metro rail system.
- China has also been supplying military equipment and training to Bangladesh, which is seen as a strategic partner in its Belt and Road Initiative.
- The US fears that China's economic clout could undermine Bangladesh's sovereignty and security interests, as well as its alignment with the US-led Indo-Pacific strategy.
- The US visa policy is therefore seen as a way of signalling its displeasure with the current state of affairs in Bangladesh and its support for a more democratic and inclusive political process. The policy is also intended to deter any potential spoilers who might resort to violence or fraud to influence the outcome of the next general election, which is expected to be held in early 2024.

How has Bangladesh reacted to the policy?

Bangladesh Government

- The reaction from Bangladesh has been mixed. The government has downplayed the impact of the policy, saying that it respects the sovereign right of any country to decide on its visa regime.
- It has also asserted that it is committed to holding free, fair and peaceful elections under the constitution and the law.
- It has claimed that the policy is not aimed at any specific individual or group, but rather at those who might undermine democracy in general.

Opposition Parties

- The opposition parties have welcomed the policy as recognition of their grievances and demands. They have said that the policy reflects the international community's concern about the erosion of democracy and human rights in Bangladesh.
- They have urged the government to heed the message and create a level playing field for all political parties to participate in the election.
- They have also called for a dialogue with the government to resolve the outstanding issues related to the election commission, electoral laws and electoral violence.

Civil Society and Media

- Civil society and the media have also expressed their views on the policy. Some have praised it as a positive step towards promoting democracy and accountability in Bangladesh.
- Others have criticized it as interference in Bangladesh's internal affairs and a violation of its sovereignty.
- Some have also questioned the effectiveness and consistency of the policy, pointing out that similar policies have not been applied to other countries with worse records of democracy and human rights.

APTI PLUS

How India reacted to the policy?

- India has been silent on the developments in Bangladesh, where the US has recently announced that it will link its visa policy to the conduct of free and fair elections.
- The developments could pose a challenge to India's diplomacy, as New Delhi has a clear preference for the incumbent Prime Minister Sheikh Hasina, who has been a reliable partner for India on security and connectivity issues.

What India Can Do?

- India should not ignore this development, as it could have implications for its security, economic, and cultural ties with Bangladesh, as well as its role in countering China's growing presence in South Asia.
- India should engage with both the US and Bangladesh to voice its concerns and expectations and to support a peaceful and democratic transition of power in Dhaka.

What are the implications of the policy?

- The US visa policy for Bangladesh could have both positive and negative implications for the country's political future.

Positive

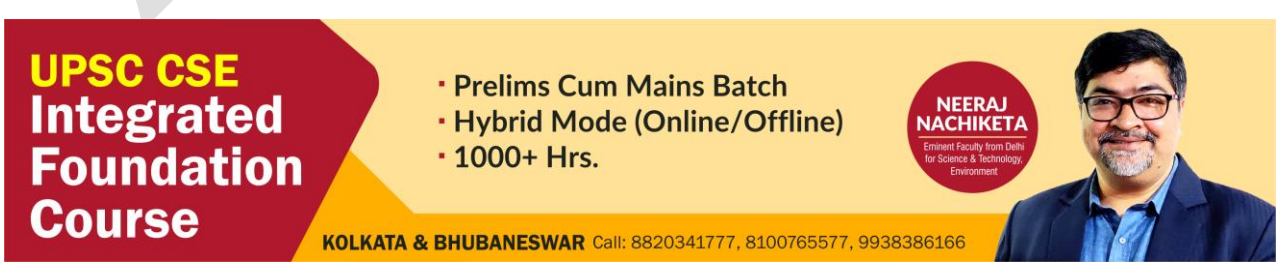
- It **could serve as a pressure point for the government to reform its policies and practices** and ensure a more credible and competitive election.
- It could also **encourage more dialogue and cooperation among different political actors** to address their differences peacefully and democratically.
- It could also boost the morale and confidence of the opposition and civil society to voice their opinions and demands without fear of reprisal.

Negative

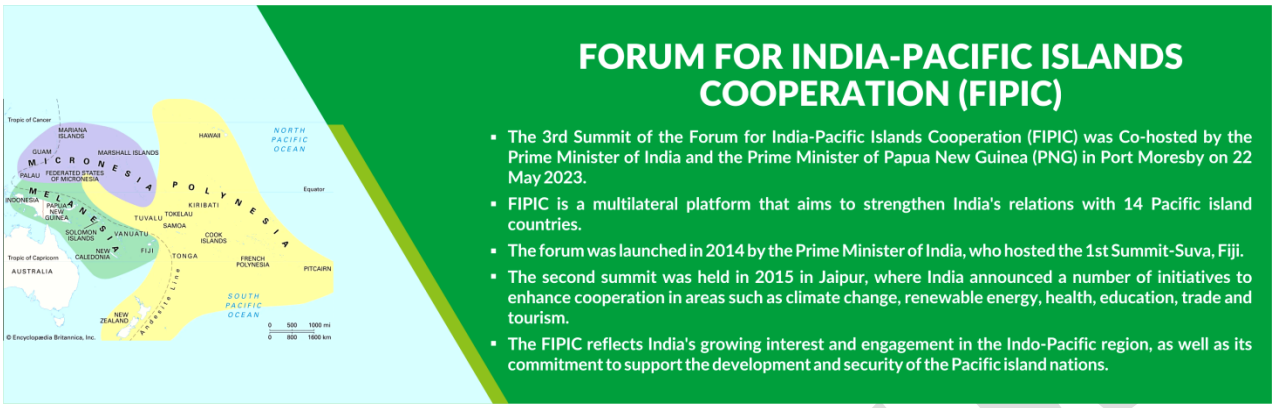
- It **could also provoke a backlash from the government and its supporters**, who might see it as an attempt to undermine their legitimacy and sovereignty.
- It could also harden their stance against any compromise or concession with the opposition or civil society.
- It could also fuel anti-US sentiments among some sections of society, who might perceive it as a biased or hostile move against their interests or values.
- It could also create more polarization and confrontation among different political actors, leading to more violence and instability.

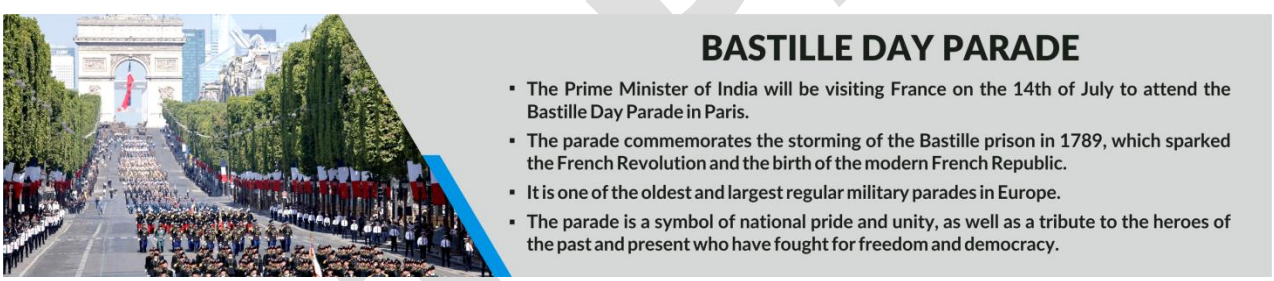
Conclusion

- The US visa policy for Bangladesh is therefore a double-edged sword. It could either be a challenge or an opportunity for the country's democratic development. It depends on how the policy is implemented and how the stakeholders respond to it. The ultimate responsibility lies with the people of Bangladesh, who have to decide what kind of future they want for themselves and their country.



2.18 SNIPPETS





2.19 1 MAINS QUESTION AND 6 MCQS

Q1. How can India leverage the International North–South Transport Corridor (INSTC) to enhance its connectivity and trade with Eurasia and beyond? What are the main objectives, challenges and benefits of this ambitious multimodal transport project that aims to link India with Russia, Iran and Central Asia through a network of rail, road and sea routes?

Answer:

The International North–South Transport Corridor (INSTC) is a 7,200-km-long multi-mode network of ship, rail, and road routes for moving freight between India, Iran, Azerbaijan, Russia, Central Asia and Europe. The route primarily involves moving freight from India, Iran, Azerbaijan and Russia via ship, rail and road.

The INSTC project is among a series of international initiatives involving India and showcases India's accelerated foreign lending programmes aimed at holistic development in contrast to China's predatory lending practices that often prioritize self-interest and leave recipient nations burdened with debts. The INSTC demonstrates its potential to unlock economic growth foster cooperation among member nations and open up new avenues for international commerce.

The main objectives of the INSTC are

- To reduce the transit time and cost of transporting goods between India and

Eurasia.

- To enhance the competitiveness of Indian exports in the Eurasian markets.
- To diversify the transport routes and modes for ensuring reliability and security of cargo movement.
- To promote regional integration and cooperation among the member countries.
- To facilitate the access of landlocked Central Asian countries to the global markets.

The main challenges of the INSTC are

- The lack of uniformity and harmonization of customs procedures and documentation among the member countries.
- The inadequate infrastructure and connectivity at some border crossings and ports.
- The geopolitical tensions and sanctions affect some of the member countries, especially Iran.
- The competition from other transport corridors such as the Suez Canal route or the China-Pakistan Economic Corridor (CPEC).
- The low awareness and utilization of the INSTC among the traders and logistics providers.

The main benefits of the INSTC are

- The reduction of transit time by 30-40% and transport cost by 20-30% compared to the traditional Suez Canal route.
- The creation of new opportunities for trade and investment among the member countries especially in sectors such as energy agriculture pharmaceuticals engineering etc.
- The strengthening of India's strategic presence and influence in the Eurasian region especially in Central Asia and Afghanistan.
- The enhancement of India's energy security by facilitating the import of oil and gas from Iran Russia and Central Asia.
- The contribution to regional peace and stability by fostering mutual trust and cooperation among the member countries.

The INSTC is a reflection of India's expanding global footprint and its vision of building a multipolar world order. It is a strategic project that can boost India's economic growth create jobs enhance its soft power and strengthen its ties with its partners in Eurasia and beyond.

Q2. According to a report by the Centre for Research on Energy and Clean Air (CREA), the "laundromat" countries are whitewashing Russian oil by processing it in their refineries and then exporting it to the European market at a premium. How many of the following country is/are termed as the "laundromat" countries?

1. Turkey
2. UAE
3. Singapore

A) Only 1
B) Only 2
C) Only 3
D) All
Answer: D

EXPLANATION

According to a report by the Centre for Research on Energy and Clean Air (CREA), the 'laundromat' countries are whitewashing Russian oil by processing it in their refineries and then exporting it to the European market at a premium. The term 'laundromat' countries refer to a group of five nations that have been accused of buying Russian crude oil and selling refined oil products to European countries, thus bypassing the sanctions imposed on Russia by the G7 and the EU. The five countries are India, China, Turkey, UAE and Singapore. They are responsible for 70% of Russia's crude oil exports.

Q3. Which countries border the Suez Canal?

A) Egypt, Saudi Arabia, Sudan
B) Egypt, Sudan, Oman
C) Egypt, Israel, Cyprus
D) Egypt, Saudi Arabia, Jordan, Israel
Answer: A

Explanation

Q4. Which of the following pairs are correctly matched?

1. Group of Four (G4): Countries which seek permanent seats for themselves on an expanded Security Council.
2. Uniting for Consensus (UfC) group: Countries which oppose any new permanent seats and favour a modest increase in non-permanent seats.

A) 1 only
B) 2 only
C) Both 1 and 2
D) Neither 1 nor 2
Answer: C
Explanation

- ***The General Assembly has always been very much divided.*** *Among the 193 countries, there are five negotiating groups and they are neutralising each other. These groups are;*
- ***The Group of Four (G4):*** *Brazil, Germany, India and Japan, which seek permanent seats for themselves on an expanded Security Council.*
- ***The Uniting for Consensus (UfC) group:*** *Led by Italy, Pakistan, Argentina and Mexico, which opposes any new permanent seats and favours a modest increase in non-permanent seats.*
- ***The African Group:*** *Represented by the Committee of Ten (C-10), this demands two permanent seats and two additional non-permanent seats for Africa, with full veto power.*
- ***The Arab Group:*** *The group calls for at least one permanent seat for an Arab country, preferably Egypt or Saudi Arabia.*
- ***The Small and Medium States:*** *These have diverse views on reform but generally advocate for more equitable geographical distribution and greater transparency in the Council's work.*

Q5. India and the European Free Trade Association (EFTA) states have recently resumed their negotiations towards a Trade and Economic Partnership Agreement (TEPA). European Free Trade Association (EFTA) is a regional trade organization that consists of how many of the following countries?

1. Iceland
2. Liechtenstein
3. Norway
4. Switzerland

A) Only 1
B) Only 2
C) Only 3
D) All
Answer: D
EXPLANATION

European Free Trade Association (EFTA) is a regional trade organization that consists of four member states: Iceland, Liechtenstein, Norway and Switzerland. It was established in 1960 as an alternative to the European Economic Community (EEC), which later became the European Union (EU). It aims to promote free trade and economic integration among its members, as well as with other countries around the world.

Q6. The term "Wagner Group" was frequently seen in the news, it is a___.

A) Environmental Protection Organization
B) Human Rights Protection Organization
C) Paramilitary organisation in Russia
D) Organization to study the Sea Surface
Answer: C
Explanation:

The Wagner Group is a paramilitary organisation in Russia. It is also referred to as a private military organisation (PMC), a network of mercenaries. It is an unofficial unit of the Russian Ministry of Defence (MoD) or Russia's military intelligence agency because it operates in favour of Russian goals, receives equipment from the MoD, and uses MoD installations for training.

APTI PLUS

3. ECONOMY

3. 1 COMPETITION LAWS IN INDIA

Context

- Indian start-ups have accused the Internet and Mobile Association of India of "promoting the views" of big tech companies such as Google and Metasignaling Anti Competitive Practices.

Anti-competitive practices

- Anti-competitive practices refer to an all-embracing range of business practices in which a firm or group of firms restrict inter-firm competition to keep up profits.

Anti-Competitive behaviour by firms and companies

- Foreclosing competitors/ competition.
- Unfair or discriminatory pricing/ conditions.
- Limiting or restricting production of goods or provision of services.
- Limiting or restricting scientific or technical development to the prejudice of consumers.
- Mutual anti-competitive agreements.
- Predatory pricing.
- Denial of market access to others.
- Making conclusions of contracts subject to the acceptance by other parties of supplementary obligations that are unrelated to the original contract.

History of Competition Laws in India

- The Parliament of India passed the Competition Act, 2002 on January 13, 2003, which **repealed the Monopolies and Restrictive Trade Practices Act, 1969.**
- The Competition Act, 2002 was changed twice after its enactment, with the Competition (Amendment) Act, 2007 and the Competition (Amendment) Act, 2009.

Objectives of the Act

- The primary goal of the Act is **to control the anti-competitive behaviour of a firm or company that has a negative impact on competition in India's market.**
- Furthermore, the Act seeks to encourage and **maintain market competition, safeguard the interests of consumers, and safeguard market freedom in our country.**

Features of Competition Act 2002

1. **Anti-competitive agreements:** The competition law prohibits any agreement between two or more enterprises or persons to maintain market competition and safeguard consumers' interests within India. Such agreements can be vertical or horizontal. Vertical agreements are those agreements between enterprises at different stages of production, while horizontal agreements are those between enterprises at the same production level.
2. **Anti-abuse of dominance:** If any enterprise abuses its dominant position, it will be punished.
3. **Anti cartels:** If any agreement between enterprises or individuals hurts competition, it will be considered a criminal offence.
4. **Combination regulations:** The Commission will decide on mergers and acquisitions only if it does not harm competition in the market.
5. **Informative nature of this act:** To secure transparency and avoid any misunderstanding between enterprises or individuals, an enterprise shall inform **Competition Commission of India (CCI)** regarding their dealings that are likely to affect competition in the market before taking such action or entering into such agreement.

Competition (Amendment) Act, 2023

Deal Value Threshold

- Under the Act, a person or enterprise cannot enter into a combination, i.e., mergers, acquisitions, or amalgamations, which may result in an appreciable adverse effect on competition. This includes any transaction involving cumulative assets of over INR 1000 crore, or cumulative turnover of more than

INR 3000 crore. The Amendment Act has expanded the definition of combinations to include transactions that have a value of more than INR 2000 crore. Further, transactions where an enterprise has "*substantial business operations in India*" will also have to be notified.

Time Frame for Approval of Combinations

- Earlier, the **Competition Commission of India (CCI)** had a period of 210 days for the approval of combinations. Now, the Amendment Act has reduced this period to 150 days. Further, the prima facie opinion on such transactions needs to be provided by the CCI within 30 days, after which, such combinations will be deemed as approved.

Definition of "Control"

- For classification of combinations, the term "control" was defined under the Act as "control over the affairs or management by one or more enterprises over another enterprise or group". Now, the Amendment Act has amended this definition to "the ability to exercise material influence over the management, affairs, or strategic commercial decisions". However, the factors that may constitute "material influence" have not been clarified by the Amendment Act.

Definition of "Relevant Market"

- The Amendment Act has amended the definition of "relevant product market" to cover two products as part of the same relevant market even if the production or supply of the two is regarded as interchangeable or substitutable by the supplier. Previously, two products or services were considered to be part of the same relevant market if it was regarded as interchangeable or substitutable by the customer.
- Further, the Amendment Act provides for two additional factors that may be used by the CCI to identify a "relevant product market". These factors include:
  1. costs associated with switching demand or supply to other goods or services.
  2. categories of customers.
- For the determination of a "relevant geographic market," the Amendment Act adds the following two factors:
  1. characteristics of goods or nature of services.
  2. costs associated with switching supply or demand to other areas.

Penalty for False Statement or Omission

- Earlier, the penalty for making false statements or omission to submit material information was INR 1 crore. Under the Amendment Act, **this penalty has been increased to INR 5 crore.**

Penalty on Global Turnover

- The Amendment Act **grants CCI the power to impose a penalty of up to 10% of the global turnover of the enterprise**, including sales derived from products or services that are not related to the relevant product or relevant market.

Powers of Director General

- Under the Act, the Director General (DG) was appointed by the Government of India. However, the **Amendment Act has transferred this power to the CCI, giving it more control over the erstwhile disjoined DG**. Additionally, the Amendment Act assigns more powers to the DG to summon agents of a company, conduct investigations/ dawn raids, seek information from all parties involved under an investigation, and seek relevant documents in furtherance of the same.

Settlements and Commitments Framework

- The Amendment Act has introduced the mechanism for settlements and commitments, allowing parties to apply to the CCI to settle their disputes or make certain voluntary commitments in matters relating to anti-competitive vertical agreements and abuse of dominance. However, such a mechanism **will not be available in cartel cases.**
- Settlements may be considered once the Investigation Report is submitted by the DG, but the final order is yet to be passed by the CCI. Commitments may be considered any time after the initiation of an investigation before its completion in the form of the DG's

investigation report. Further, **no appeal will be allowed against the order of the CCI to adopt a settlement or commitment.**

Scope of Anti-Competitive Agreements

- The Amendment Act has widened the scope of anti-competitive agreements to cover entities that are not engaged in identical or similar trade but are part of a "hub and spoke" cartel arrangement. It also covers entities that participate or intend to participate in the facilitation of anti-competitive horizontal agreements under such agreements.

Limitation for Filing of Complaints

- No complaints shall be entertained by the CCI **unless they are filed within three years from the date on which the cause of action arises.** However, the CCI may entertain complaints beyond this period if the entity provides sufficient cause resulting in such delay.

Deposit on Penalty for Appeals

- Under the Amendment Act, an appellant **will have to deposit 25% of the penalty amount** to file an appeal before the National Company Law Appellate Tribunal (NCLAT) against the orders passed by CCI.

Use of IPRs as a Defence

- Under the Act, the Intellectual Property Rights of an entity in Copyright, Patents, Trade Marks, and Designs can be used as a defence in matters relating to anti-competitive agreements. Such defence is, however, not available in matters of abuse of dominant position. The Amendment Act has not altered this stand, and entities cannot cite protection of their IPRs as a defence in cases relating to unfair/discriminatory pricing, predatory pricing, condition in the purchase or sale of goods or services, limitation/restriction of production of goods, technical or scientific development relating to goods or services to the prejudice of consumers, denial of market access to other players or any other abuse of dominant position as described under Section 4 of the Act.

Conclusion

- The reforms introduced are expected to speed up mergers and acquisitions and reduce uncertainties for the parties involved. It is also expected to enable prompter resolution of enforcement proceedings, expand the scope of penalties under the competition law, and **supplement the "ease of doing business" and anti-competitive efforts when it comes to the participation of Indian players in global markets.**

COMPETITION COMMISSION OF INDIA

- It is a statutory body **established under the Competition Act, 2002**, tasked with ensuring a fair and healthy competition in economic activities of the country.
- It is to **act as an antitrust watchdog and** ensure that there is no abuse of dominant position by a company in the market.

Composition of CCI:

- It is a **quasi-judicial body** which as **one chairperson and six other members.**
- They will all be appointed by the Central Government.
- The Chairperson and members shall be a person of ability, integrity and standing and who, has been, or is qualified to be a judge of a High Court, or, has special knowledge of, and professional experience of not less than fifteen years in international trade, economics, business, commerce, law, finance, accountancy, management, industry, public affairs, administration or in any other matter.
- **Please note:** the **appeals from CCI goes to National Company Law Appellate Tribunal (NCLAT)** constituted under the Companies Act, 2013.

Evaluation of the Working of CCI:

- The CCI has been fairly successful in its functioning and has been a **definite improvement from its predecessor under the Monopolies and Restrictive Trade Practices Act, 1969.**
- It has prevented the cartelization of cement companies, **imposed penalties on the BCCI for the abuse of dominant position**, ordered for an anti-trust probe against Google and has prevented cartelization in the telecom sector.
- It has **undertaken several measures to increase public awareness about competition issues** and has undertaken competition advocacy too.
- It has **ensured that there is proactive engagement with all stakeholders**, including consumers, industry, government and international jurisdictions.

3. 2 DIGITALLY UNPREPARED WORKFORCE

Context

- The World Economic Forum predicts that **85 million jobs will become obsolete by 2025** due to technological advancements in artificial intelligence and other fields.

Findings of WEF

- The **role of machines in the division of labor will continue to increase**, especially for repetitive and routine tasks.
- As a result, countries that can produce a highly skilled workforce in computer-based technologies will have a competitive edge in the global economy. The **jobs of the future are expected to rely more on data-driven and machine-powered processes.**

Concerns

- NSS 78th Round data (2020-21): **Less than 42 percent of the country's youth has a basic understanding of copying or moving files** or using copy-and-paste tools on a computer.
- **Only 10 percent and 8.6 percent of youth have knowledge of basic arithmetic formulae** in a spreadsheet and create an electronic presentation using presentation software, respectively.
- Moving to more complicated tasks, the data indicate that **only 2.4 percent of youth have programming skills.**
- Approximately **30 percent of the trained workforce in different fields have IT training, yet 29 percent of individuals with such training are unemployed**, pointing towards either inadequate training content or poor training quality that results in low employability.

Revamping skills is the need of the hour

- To adapt to the changing job market, it is **crucial to restructure the entire skill development system.**
- It is imperative to focus on **up skilling the workforce with an eye on emerging technologies and the future of work.**
- The NSS 78th Round data (2020-21) **indicate a clear need for skilling programmes, particularly in the area of computer and IT skills.**
- The data from the National Sample Survey: Multiple Indicator Survey and Labour Force Periodic Survey (2020-21) indicate a need to broaden the coverage of IT or computer-based training across various sectors.

The case of India

- India has an advantage over other countries due to its sizeable working-age population and significant youth demographic.
- However, to fully realize this advantage, there is a need for strategic investment, particularly in the reskilling of the workforce to keep up with the digital transformation.

Conclusion

- The government, has implemented several skilling programs, such as the **Skill India Mission and Pradhan Mantri Kaushal Vikas**

Yojana (PMKVY) 4.0. These initiatives aim to train and certify millions of individuals in various vocational skills, including IT and digital skills, with a focus on emerging technologies like artificial intelligence, mechatronics, and robotics.

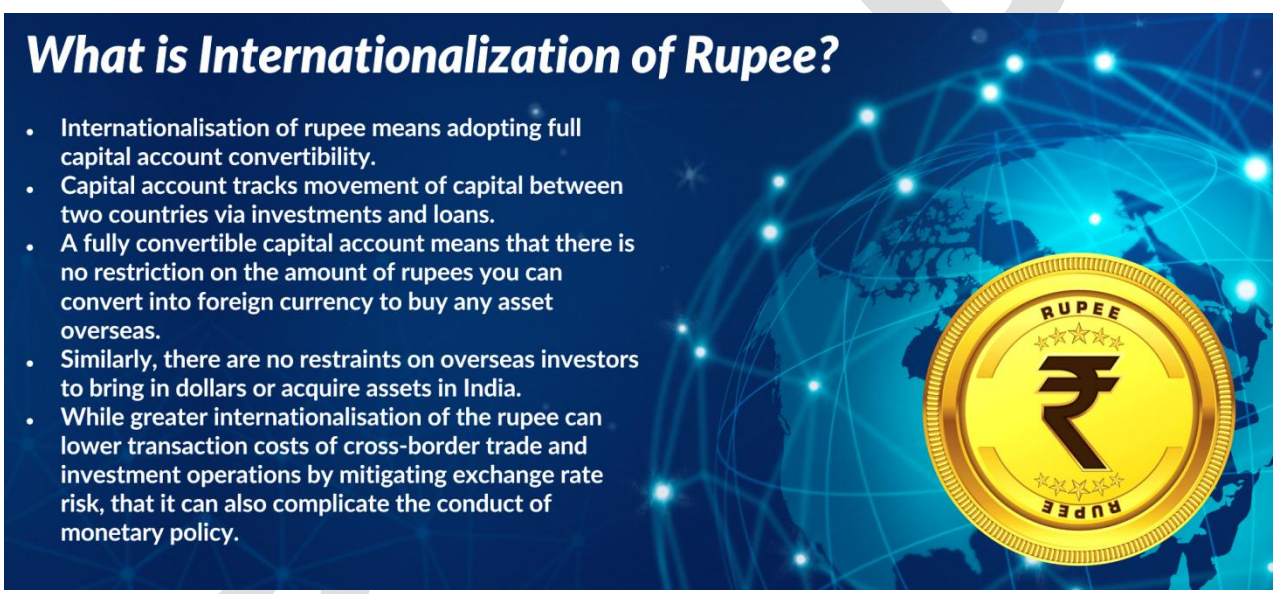
- However, the PLFS (2021) data show that **only 4.1 percent of youth received formal training in different fields**. As the digital transformation impacts all sectors, **it is imperative that a large section of the workforce undergoes significant skilling, up skilling, or re skilling to compete in the digital economy.**

As the pace of technological change continues to accelerate and demand for such skills outstrips supply, it is time to educate everyone on computer-based skills.

3. 3 INTERNATIONALIZATION OF RUPEE

Context

- India needs to gear up to manage the exchange rate volatility **as the country progresses on the path of internationalisation of rupee and freer capital account convertibility.**



Benefits of INR internationalisation

- It reduces transaction costs, augments business opportunities, enhances efficiency, and bolsters confidence in the Indian economy.
- It mitigates exchange rate risks for Indian businesses by eliminating the need to purchase USD prior to making payments.
- It creates new channels for Indian businesses to access global capital and financing.
- It reduces the need for foreign exchange reserves, potentially saving the economy from incurring losses.
- It promotes the efficient functioning of the Indian economy by facilitating foreign trade and capital flow.
- It leads to increased trust in the Indian economy, making it easier for domestic players to attract both direct and institutional investment.
- The use of the rupee in cross-border transactions mitigates currency risk for Indian businesses. Protection from currency volatility not only reduces the cost of doing business but also enables better growth of businesses, improving the chances for Indian businesses to grow globally.
- Reduced exposure to currency risk would substantially mitigate the pain of a reversal of capital flows.
- As the use of the rupee becomes more significant, the bargaining power of Indian

businesses will improve, adding weight to the Indian economy and enhancing India's global stature and respect.

- **Reduced outflow of US dollars:** The strengthening of the dollar relative to other currencies has made it difficult for many economies to bring down inflation. Such pressures are especially critical in emerging markets, considering their higher import dependency and larger share of dollar-invoiced imports compared with developed economies. India also runs a huge trade deficit, which means more dollars are paid for imports than gained through exports. Invoicing in rupee will save dollar outflows, especially, at a time when the rupee is depreciating against the US dollar.

Challenges of INR-based trade internationalisation

- **Lack of a deep and liquid financial market for the INR**, making it difficult for foreign investors to hold and trade the INR, limiting its appeal as a global currency.
- **Lack of a stable and predictable policy environment** in India, which makes investors wary of investing in emerging markets like India due to concerns about political and economic instability.
- **Promoting the use of the INR as an invoicing currency** will not be easy, as India's share in global trade is not significant enough. Exporting countries are unlikely to consider the INR as an invoicing currency unless it aligns with their interests.
- Additionally, the prevailing global atmosphere of trade protectionism and geopolitical rivalries could further complicate the process of promoting invoices in INR with various countries.
- India will also be able to save significant amount of its precious foreign exchange reserves for the exigencies caused by the sudden capital outflows due to the reasons such as rising international crude oil prices, exacerbating situation in Eastern Europe due to Russia-Ukraine conflict and possibility of further hike in interest rates by the US federal reserve to arrest the rising price levels in USA etc.
- **Trade of oil in rupee terms is expected to help control rupee depreciation and inflation** caused by fluctuating oil prices. Hence, it will be beneficial for a country like India which has huge energy requirements to reduce the strain on its trade and current account balance caused by volatile international crude oil prices.

Steps taken

- In recent years, India has taken several steps towards the internationalisation of the INR.
- The RBI has enabled external commercial borrowings in INR and permitted INR settlement of external trade.
- Additionally, the RBI has signed currency swap agreements with several countries, including **Japan, UAE, and Sri Lanka**, allowing for the use of the INR in bilateral trade and investment transactions.
- India has also been working towards promoting the use of the INR as an invoicing currency in international trade transactions.
- The Reserve Bank of India has **introduced the Central Bank Digital Currency (CBDC)**, a digital version of cash backed by a central bank guarantee. The introduction of the CBDC outlines the pursuit of the RBI to introduce a new payment system based on the CBDC and reduce its reliance on dollar-based cross-border transactions.

Way Ahead

- India needs to develop a **deep and liquid market for the INR, including the development of offshore INR markets**, to attract global investors and promote the use of the INR in international transactions.
- India needs to provide **a stable and predictable policy environment** to attract foreign investment and promote the use of the INR in international transactions.
- India needs to **improve its export competitiveness** to increase demand for the INR in international trade.

- To enhance its export competitiveness, India needs to **focus on diversifying its export basket**, improving its infrastructure, reducing trade barriers, and enhancing the ease of doing business.

Closing Remarks

- Despite the challenges, India's continued efforts towards INR internationalisation are vital to its long-term economic growth and stability.
- The government and RBI must work together to implement necessary reforms, while the private sector should collaborate to develop the financial markets and infrastructure needed to support the INR as a global currency.
- **By increasing exports and imports and diversifying its export basket**, India can increase demand for the INR in international trade.
- **Improving its infrastructure, reducing trade barriers, and enhancing the ease of doing business** will further enhance India's export competitiveness.
- **These steps, along with a stable policy environment and a deep and liquid market for the INR**, will make the INR a more credible and trusted currency in the global market.

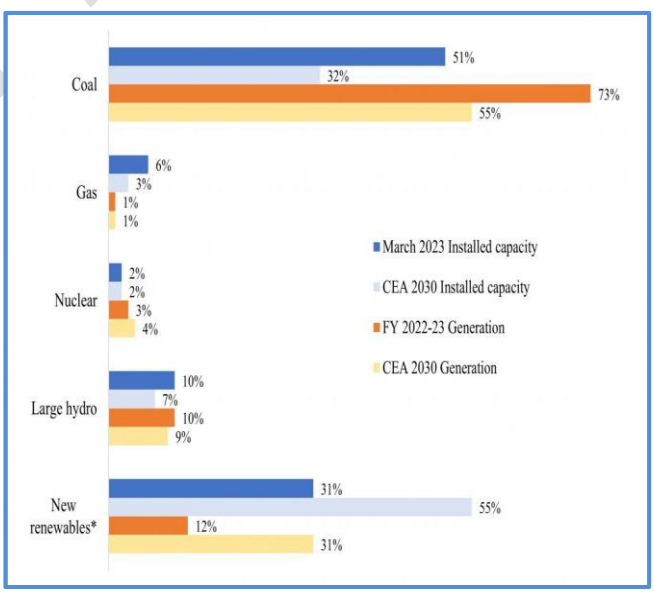
3. 4 REPORT ON OPTIMAL GENERATION MIX 2030 VERSION 2.0

Context

- In a new publication titled Report on Optimal Generation Mix 2030 Version 2.0, the Union Ministry of Power's Central Electricity Authority (CEA) offered updated projections on what India's energy mix for the power sector could look like in 2030.

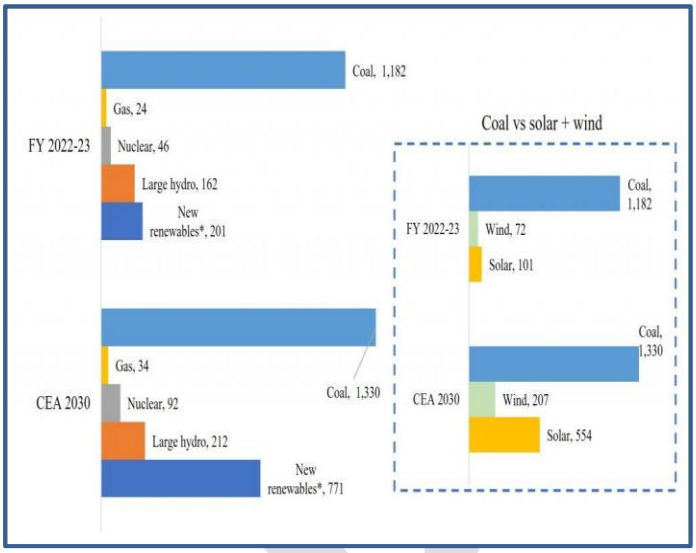
Report Highlights

- India generated 73 per cent of its power from coal in 2022-23; this to go down to 55 per cent by 2030.
- A greater share in the electricity mix will be held by renewable sources **such as small hydro, pumped hydro, solar, wind and biomass, whose generation is expected to rise to 31 per cent in 2030 from 12 per cent currently.**
- India's capacity and generation are expected to **quadruple from 109 GW to 392 GW and from 173 BU to 761 BU respectively in 2030.**
- Despite the government of India's aspirations to raise the share of natural gas in the energy mix, the contribution of gas to power generation remains small.



- For coal plants, it estimates that 2,121.5 MW is considered for likely retirement by 2030, of which 304 MW will be retired during 2022-23.
- While the share of coal is expected to reduce from 73 per cent to 55 per cent of power generation by 2030, coal power will rise in absolute terms between 2023 and 2030 — by 19 per cent in terms of capacity and by 13 per cent in terms of generation.

- Power generation projected for coal in 2030 to go up from 54 per cent to 55 per cent
- Large hydro generation to increase from 8 per cent to 9 per cent
- **Solar generation** to go up from 19 per cent to 23 per cent
- **Wind generation** for 2030 to reduce from 12 per cent in the previous report to 9 per cent in the new one
- Projection for **total installed power capacity** for 2030 has been revised to 777 GW compared to the older report which projected 817 GW
- **Power generation** projected for coal in 2030 to go up from 54 per cent to 55 per cent



- **Large hydro generation** to increase from 8 per cent to 9 per cent
- **Solar generation** to go up from 19 per cent to 23 per cent
- **Wind generation** for 2030 to reduce from 12 per cent in the previous report to 9 per cent in the new one
- Projection for **total installed power capacity** for 2030 has been revised to 777 GW compared to the older report which projected 817 GW.
- The report also stated that **India's green hydrogen** aspirations will lead to an additional energy requirement of 250 BU by 2030.
- The **power sector contributes about 40 per cent of India's total greenhouse gas emissions**. With growing energy demand as is expected of a developing country, power sector emissions are projected to rise by 11 per cent — from 1.002 gigatonnes of carbon dioxide (GtCO2) in 2021-22, comprising 8 per cent of global power sector emissions to 1.114 GtCO2 in 2030 at 10 per cent of the corresponding global figure. On a per capita basis, this will be about half the world average even in 2030.

Closing Remarks

- India is likely to over-achieve on its pledge to the Paris Agreement — to have 50 per cent of installed power capacity from non-fossil sources by 2030.
- As per the report, India's share of capacity from non-fossil sources — large hydro, small hydro, pumped hydro, solar, wind and biomass — will be 62 per cent by 2030. The share will be 64 per cent if nuclear power is considered.

3. 5 INDIA'S AVIATION INDUSTRY

Context

- GoFirst Airlines has filed for bankruptcy, which could have ripples across the domestic aviation sector.
- The unprecedented distress call by the airline raises concerns about the health of the Indian aviation industry.

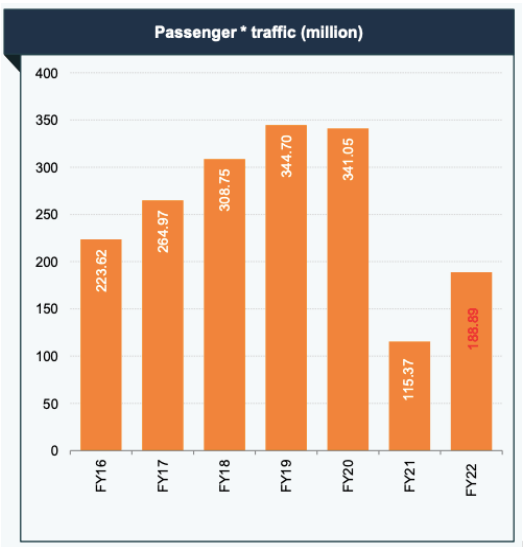
Aviation Industry: Key Pointers

- India is the **world's fastest-growing aviation market**, with passenger numbers near quadrupling in over a decade.
- With increased air connectivity across multiple countries, the demand for international air travel is also growing faster than domestic air travel.

Trends in the Aviation Industry

Asia's largest aviation industry

- India has **Asia's largest aviation industry**. In recent decades, civil aviation has risen quickly.
- The domestic sector has thrived due to **rising per capita income** and **increasing penetration of air traveling facilities to ordinary people, and rapid expansion of destinations, airports, and operational airports.**



Air Traffic

- India is the **world's third-largest air passenger market, after China and the United States**.

Airplane Fleet

- The civil aviation ministry conjectures that the overall **fleet size will almost double to 1,200 in 5 years from the current size of over 700 planes.**

Number of Airports

- The government has envisaged **increasing the number of operational airports to 220 by 2030, from the current size of 129.**

Airport Infrastructure

- There are currently 148 airports in the country and it is **the third-largest domestic market in the world in terms of seat capacity.**
- The International Civil Aviation Organization forecasts **demand for 730 new airports by 2030, catering to the expected 6.5 billion airline passenger growth.**

Freight Traffic

- India is the **sixth-largest air freight market globally with over 3.33 million metric tons of loading as of 2021**.
- The share of India in the global air freight market has increased from around 2% in 2000 to more than 7% as of 2021, with growth rates in the range of 3–**7% per annum during recent years.**

Challenges Facing the Aviation Industry

- Despite being touted as the 'fastest growing aviation sector' in the world, airlines in the country have struggled to survive in the highly competitive and unforgiving aviation industry.

Aviation Turbine Fuel (ATF) Prices

- ATF accounts for almost 45% of the operational cost of an Indian airline.
- ATF prices rose over 50% in 2022. As per Boeing, **fuel costs for Indian airlines are 90% higher compared to their global peers**. Additionally, **ATF fuel is subjected to VAT which can range from anywhere between 15-30%,** depending on the states' taxation rules. Additionally, the **ATF pricing is not transparent enough**. Currently, it is fixed **based on the International Import Parity Prices,** which does not capture the true cost of producing ATF.

Other Operating Expenses

- Almost 35-50% of Indian airlines' operating expenses are **dominated by US dollars**. This means **depreciation in the rupee adversely impacts an airline's bottom-line growth**.
- Indian airlines, furthermore, **face issues in passing on these costs to the passengers as they are highly price-sensitive, therefore earning low yields on air tickets.** Another large component of an airline's expense is the salaries that are paid to pilots.

Elevated Debt Levels and Losses

- Due to a temporary halt in all airline operations at the peak of the pandemic and the subsequent rise in ATF pricing, the finances of Indian airline companies have been in disarray.

- **Losses to the tune of Rs. 23,000 crores were recorded in 2021.**

Stiff Competition

- There are over 15 airlines operational in India, with a heady **mix of low-cost, charter, and cargo airlines**.
- Indeed, the airfares have been slashed for the routes where these airlines have launched their flights.

Financial Trouble

- Financial trouble has led to the folding of major airlines in the past few decades — seventeen airlines, domestic and regional, have exited the market

Indian aviation policy

- Some Indian States impose provincial **taxes of as much as 30% on jet fuel.**
- Indian aviation policy has also posed barriers to entry and growth while also not affecting players uniformly.
- This changed with the **National Civil Aviation Policy (NCAP) in 2016**, which **removed the five-year domestic experience rule but kept in place the 20 aircraft fleet requirement** — mandating domestic airlines to have at least 20 aircraft (or 20% of its entire fleet size whichever is higher) for domestic operations.
- While newer entrants to the industry, like Vistara and AirAsia India lobbied the government to remove the 5/20 rule, **legacy carriers who had to meet the earlier requirements to go international opposed the change as being bad for competition.**

Expensive Lease Rents

- Most Indian airlines do not own entire fleets as their financials do not allow them to shell out huge one-time payments to buy planes but lease them from companies based out of India instead. About 80% of India's total commercial fleet is leased, according to PwC.
- However, leasing ends up adding high costs to operations as these leases of about six months each are denominated in U.S. dollars.

Airport Fees

- Airlines also have to bear costs in terms of airport fees for the use of airport facilities including aircraft landing, freight, and other charges related to the use of airport infrastructure such as runways and passenger terminals.

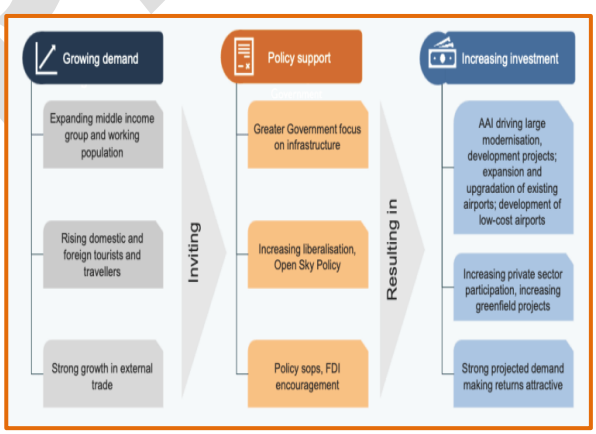
Others

- Other factors that could impact the companies in the airlines industry include regulatory changes, RBI approvals (for foreign investments), rupee appreciation/depreciation against US dollars, delay in setting up of airport infrastructure facilities and aircraft bans and other related issues (like the case Boeing 727).

Silver Lining: Key Drivers

Some of the key factors which will drive the growth of the aviation sector are mentioned below:

Higher Household Income Entry of Low-cost Carriers (LCC) Increased FDI Inflows The inflow of FDI contributes to the better development of the infrastructure of the aviation industry.



- Up to 100% FDI in civil aviation in India is permitted in Non-scheduled air transport services under the automatic route
- Up to 100% FDI is permitted in helicopter services and seaplanes under the automatic route
- Up to 100% FDI is permitted in MRO for maintenance and repair organizations; flying training institutes; and technical training institutes under the automatic route.
- Up to 100% FDI in the aviation sector is permitted in Ground Handling Services subject to sectoral regulations & security clearance under the automatic route

Increased Tourist Inflows Development of Modern Airports with New Technologies

- Modern airports come up with developed infrastructure in terms of speed, capacity, sustainability goals, etc, and hence contribute more to the aviation industry.
- One of the examples is the newly opened green field international airport at Mopa in the state of Goa.
- This Airport will handle around 4.4 million passengers per annum which can be extended to a saturation capacity of 33 million passengers per annum.
- This airport has been developed with several sustainable infrastructure plans, including a solar power plant, green buildings, LED lights on the runway, rainwater harvesting, and a modern sewage treatment plant with recycling facilities.

Supporting Government Policies

- One of the schemes launched by the government in support of the growth of aviation was the **UDAN (UdeDesh Ka Aam Nagrik) scheme** which was released in June 2016 with the motive of **offering half of the flights at subsidized fares and is expected to be in process for a period of 10 years (till 2026).**

Northeast India

- Over 30 airport development projects are under progress across various regions in Northeast India.
- Airport Authority in India plans to develop over 20 airports in Tier-II and Tier-III cities in the next 5 years.
- AAI plans to develop Guwahati as an inter-regional hub and Agartala, Imphal and Dibrugarh as intra-regional hubs.

Airport Infrastructure

- The Indian Government is planning to invest US$ 1.83 billion for the development of airport infrastructure along with aviation navigation services by 2026.

National Civil Aviation Policy, 2016

- The policy covers 22 areas of the civil aviation sector. Regional Connectivity Scheme (RCS) has been launched under the policy. Airlines can commence international operations and will have to deploy 20 aircraft or 20% of their total capacity (whichever is higher) for domestic operations.

Encouragement to FDI

- The Government has allowed 100% FDI under automatic routes for green field projects, whereas 74% FDI is allowed under automatic routes for brown field projects.
- 100% FDI is allowed under automatic routes in scheduled air transport service, regional air transport service and domestic scheduled passenger airlines.
- FDI over 49% would require Government approval.
- Approval of 49% FDI in aviation for foreign carriers.
- FDI inflows in India's air transport sector (including air freight) reached US$ 3.54 billion between April 2000-March 2022.

'Revival of unserved and under-served airports' scheme

- The Government has approved **the 'Revival of unserved and under-served airports' scheme** for the revival and development of 100 unserved and under-served airports, helipads, and water aerodromes by 2024.

KrishiUdan 2.0

- **KrishiUdan 2.0** is a scheme that focuses on transporting perishable food products from hilly areas, north-eastern states, tribal areas, and other areas. 58 airports have been identified under this scheme to incentivize movement of air cargo.

Regional Connectivity Scheme (UDAN)

- The Union Budget 2023-24 allocated an amount of INR 1,244.07 crore for **Regional Connectivity Scheme (UDAN).**

Recommendations that can Revitalize the Aviation Sector

Tightening the PPP (Public Private Partnership) procurement and concession framework

(i) Implement the recommendations of the **Kelkar Committee report on revitalizing PPPs (2015)**, of which two key elements stand out

(a) defining triggers and commercial principles for renegotiation of contracts – a necessity in

long-tenure concessions with volatile and uncertain market variables

(b) disallowing public-sector entities from participating in PPP projects – a good and effective approach to not vitiate the fundamental rationale of private sector procurement

(ii) Providing tariff certainty – an essential tenet in any private sector contract to give comfort to both investors and users.

(iii) Ensure tight procurement timelines – process from tender invitation to award of contracts not exceeding 9 months.

- In addition, **making airport connectivity or other mobility solutions an integral part of the concession and project agreements.**
- They also need to be **co-terminus with airport commencement timelines**, with clearly defined obligations and penalty provisions for delays or defaults by contracting parties – the economic costs of non-compliance can be significantly minimized or avoided if properly structured.

Redefining our regulatory philosophy

- A tightly controlled regulatory framework for airports sometimes does not necessarily result in the best investment and commercial outcomes. It has increased the cost of regulation significantly and has adversely impacted interest from overseas investors.
- With tariff setting and commercial renegotiation mechanisms internalized in PPP contracts, **regulators can focus more on monitoring and enforcing the efficient preferred outcomes on service quality, including security, safety and sustainability KPIs that are essential elements of the airport and aviation businesses.**

Making Air Cargo Infrastructure a national priority

- There is a need to **revisit the National Air Cargo Policy**.
- A key focus of the policy should be on **making our hub airports production, processing and transshipment centres,** which is eminently possible with a **renewed approach to Make in India, Atmanirbharta and acuity in monetizing scarce real estate assets.**

Rationalizing taxes across the board

- The cumulative impact of direct and indirect taxes in aviation is one of the highest in the world. Steps that need to be taken:
  - Rationalizing GST on Aviation Turbine Fuel (ATF).
  - Relief for MRO (Maintenance, Repair, Overhaul).
  - A full waiver of royalty payments for the next five years – a prescription made in the **National Civil Aviation Policy -NCAP 2016,** but not enforced.
  - Rationalization of lease rentals charged by airport operators, delinked from standard commercial rates, with its treatment as a priority sector by the government.
  - A tax incentive for Indian and foreign carriers to procure services in India, which would require a differential tax rate for Indian and overseas service providers – consistent with the tax code in other countries which support the local industry.
  - Option for renewal of leases for existing tenants to protect historical investments and benefit from the new discounted charges and tax levies.
  - Harmonization of manuals to reconcile applicable tax rates for common-use equipment, components and parts for both civil and military clients.

Roll out GAGAN with firm timelines

- In 2012, India successfully configured, tested and commissioned the GPS Aided GEO Augmented Navigation (GAGAN) program**, a satellite-based augmentation system (SBAS) developed to support India's ambition of maximizing air space utilization**.
- GAGAN was intended to **make flying cheaper, faster and safer besides being an efficient alternative to ground-based navigation aids.** It is interoperable with other satellite–based systems such as WAAS (US), EGNOS (Europe) and MSAS (Japan) giving it the ability to

provide seamless services across global airspaces.

- The advantages of GAGAN are many. For example, it would **obviate the need to have instrument landing systems (ILS) at smaller airports with limited air-traffic movement, avoid flight diversions, save fuel for airlines and bring down air navigation charges by allowing ground infrastructure and manpower to be optimized**.
- Given the right set of wheels, it will help the industry come back stronger and more competitive in the post COVID world.

Unlocking value from Open Skies and Liberalized ASAs

- India has open skies agreements with few countries including SAARC nations and more than hundred bilateral Air Service Agreements with other countries.
- Open skies have proven to be beneficial for the global aviation business, offering customers choices and competitive fares which help stimulate more demand, creating a virtuous cycle.

Revamping the UDAN scheme

- This can be done through a multi-pronged approach which goes beyond subsidies or Viability Gap Funding–
  1. providing adequate long-term low-cost capital to support new ventures;
  2. creating a strong local leasing market;
  3. incentivizing use of the NSOP (non-scheduled operators) fleet through code shares; and
  4. opening up the industry for air transport aggregators that can significantly multiply the number and frequency of users, much like the ride-hailing market in the urban transport ecosystem, which has transformed intra city travel globally.

Focusing on digital transformation

- Technology-led transformation will redefine operating models, entail investments in new assets, need supporting policy, effective regulation and cutting-edge solutions to deliver real value in a safe, secure, seamless and sustainable manner, all key themes for the future.
- This would also require harmonization of airport, airline and stakeholder SOPs globally on a suite of operating norms including data privacy, cyber security, data-sharing, digital contracts, travel documentation and border controls among others.

Making India an aviation manufacturing hub

- Indian companies have been preferred vendors for critical parts and components for the aerospace industry globally.
- A large Indian conglomerate has locally produced cabins for the S-92 Sikorsky choppers for over a decade now.
- A Bangalore-based private entity is today the global sole-supplier of flap-track-beam assemblies for another global aircraft manufacturer of single and twin-aisle jets.
- Many other Indian companies are now preferred partners for aerospace components and equipment manufacturing.
- These projects collectively demonstrate the confidence that global OEMs have in the competence and capabilities of Indian firms and potential for scaling up the business in India.

Revitalizing India as a global tourist destination

- We can triple our foreign tourist arrivals if we get our act together on three strategic elements that have proven to be critical success factors for other tourism economies.
  (i) High-quality tourism destinations with consistent best in-class infrastructure and state-of-the art mobility solutions.
  (ii) Unrestrained and reliable connectivity options by air and surface transport.
  (iv) Business friendly fiscal and regulatory environment including friendly visa and immigration policies.
- It is time to have a joint action task force with representatives from the **Aviation, Tourism, Transport, Finance and Commerce Ministries** with a plan to make India the second largest tourism economy in the region after China. It will radically change the fortunes of both the aviation and tourism industries.

*Mahatma Gandhi said **"the future depends on what we do in the present"**, A bold, rational and consistent*

approach to reforms is required to help the industry cruise to a newer and higher altitude post COVID. The government's aspiration of ***flying a billion passengers and becoming a global aviation hub will receive fresh impetus if these recommendations are considered and implemented. We must act now and help create a bigger and better future for Indian aviation.***

3. 6 RBI GOLD RESERVES

Context

- The Reserve Bank of India's (RBI) gold reserves touched 794.64 metric tonnes in fiscal 2023, an increase of nearly 5 per cent over fiscal 2022, when it held 760.42 metric tonnes of gold.

Trends of RBI's Gold Reserves

- The RBI has been building up its gold reserves for the last five-six years.
- RBI held 760.42 metric tonnes as of March 31, 2022, compared to 695.31 metric tonnes as of March 31, 2021.
- The gold reserves as of March 31, 2023, included **gold deposits of 56.32 metric tonnes**, according to the **RBI's half-yearly report on Management of Foreign Exchange Reserves- October 2022 – March 2023.**
- While **22 metric tonnes of gold is held overseas in safe custody with the Bank of England and the Bank of International Settlements (BIS),** 301.10 metric tonnes of gold is held domestically.
- As of March 31, 2023, the country's total **foreign exchange reserves stood at $578.449 billion**, and **gold reserves were at $45.2 billion.**
- In value terms (USD), the **share of gold in the total foreign exchange reserves increased from about 7 per cent at end-March 2022 to about 7.81 per cent as at end-March 2023**.
- The share of gold reserves to the country's total forex reserves stood at 7.06 per cent as of end-September 2022.
- A recent World Gold Council (WGC) report showed that the **RBI added 7 metric tonnes of gold in January-March 2023.**

So why are these reserves increasing?

- Because, as part of the diversification process, the RBI has been adding gold to its reserves, which is **considered a more safe, secure, and liquid asset, to safeguard its returns amid global uncertainty and a rising inflation scenario.**
- **RBI has been stepping up its gold purchases over the last few years in order to diversify its overall reserves**.
- This change in strategy, according to experts, has been **driven by negative interest rates in the past, the weakening of the dollar, and growing geopolitical uncertainty.**
- Central banks want security, safety, liquidity and return. **Gold is a safe asset to have as it is liquid, has an international price which is transparent, and as it can be traded anytime. So, central banks are buying gold.**

Which other Banks are buying Gold?

- Many other central banks, including the **Monetary Authority of Singapore (MAS), the People's Bank of China (PBoC) and the Central Bank of the Republic of Turkey have been buying gold**.
- In the calendar year 2022, **central banks around the world purchased 1,136 tonnes of gold, which was a record high.**
- The two key drivers of central banks' decisions to hold gold are **its performance during times of crisis, and its role as a long-term store of value.**
- In a year scarred by geopolitical uncertainty and rampant inflation, **central banks opted to continue adding gold to their coffers and at an accelerated pace.**

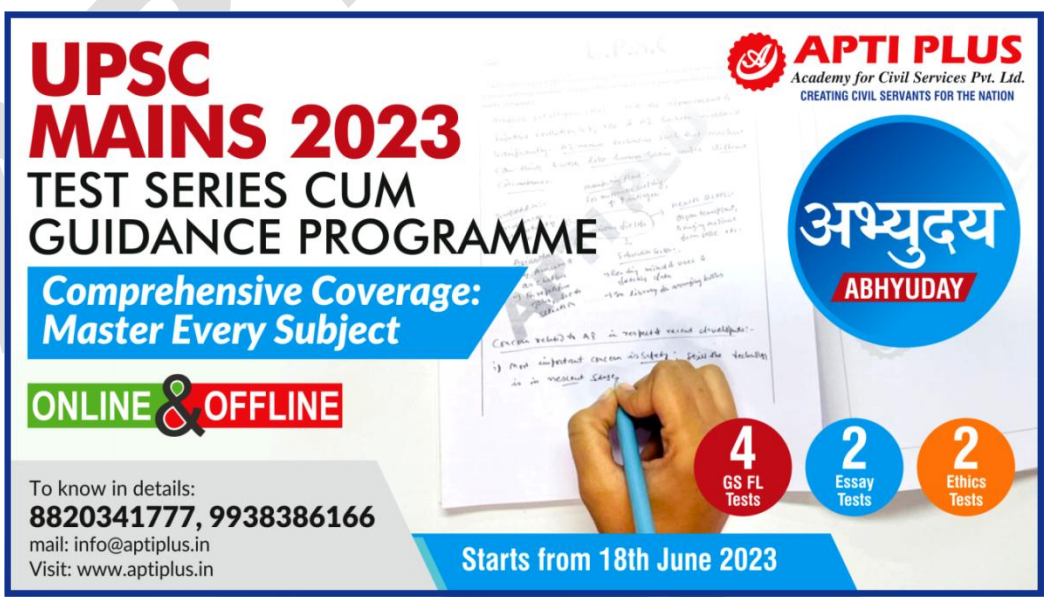
FOREX RESERVES QR:

Gold is a good hedge

- Gold is a **good hedge during times of uncertainty and economic turmoil**, so every major central bank keeps some of its reserves in gold.
- Gold prices rise when the economy is in flux, as was the case in 2020 when the economic turmoil caused by Covid reached an all-time high of $2,067 per ounce.
- With economic stability, **demand for yellow metal decreased, and prices consistently fell in 2021**. The massive purchase of gold by the RBI in 2021 took place against the backdrop of a falling price for yellow metal on the global bullion market.
- However, the War in Europe proved beneficial to gold, as the price of an ounce of gold crossed $2,000 in the first week of March 2022. Though gold lost some of its gains in the middle of March as bonds emerged as appealing investment options for institutional investors and retail investors and the Dollar Index was strengthened by the Federal Reserve's consistent rate hikes.

Role of Gold in the Economy

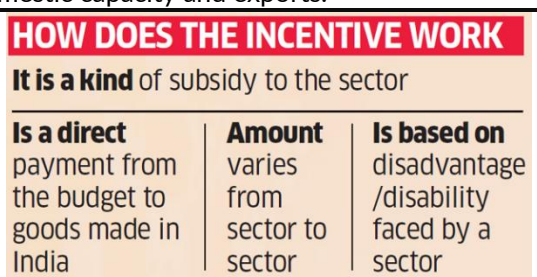
- For most of the 20th century, gold served as the world's reserve currency.
- The United States used the gold standard until 1971. They were required to have equivalent reserves of gold to back up the paper money. Due to the volatility of the US dollar and other currencies, some economists believe that we should return to the gold standard even though it has been discontinued.
- Due to its inherent value and limited supply, inflationary periods see an increase in demand for gold. The yellow metal is able to keep its value much longer than other forms of currency because it cannot be diluted.
- The value of a nation's currency will decrease when that nation imports more than it exports. A country that is a net exporter, on the other hand, will see an increase in the value of its currency.
- As this raises the value of the country's total exports, a nation that exports gold or has access to gold reserves will see an increase in the strength of its currency when gold prices rise.
- Since the central banks depend on printing more cash to purchase gold, they create an excess supply of the currency. This increases the supply and thereby reduces the value of the currency used to buy it.



3. 7 PLI SCHEME

Context

- The Union Cabinet approved an updated **Production Linked Incentive (PLI) scheme** for IT hardware manufacturing, with the total budgetary outlay increased to ₹17,000 crore.

Launch	▪ It was launched in April 2020, for the Large-Scale Electronics Manufacturing sector, but later towards the end of 2020 was introduced for 10 other sectors.
About	▪ PLI scheme is an initiative that provides incentives to domestic industries to boost local production. ▪ Through this scheme the Government aims to give companies incentives on **incremental sales from products manufactured in domestic units.** **What is Incremental Sale?** Based on past performance and the projection for future, companies set 'sales targets'. And then employees are encouraged to make even more than that and whatever has been achieved in excess is called as incremental. So, basically Incremental sales are a concept wherein a company manages to sell more products as compared to its estimates. But to ramp up production in order to sell more products companies usually need to go for self- funding. In the PLI Scheme however, the Government will provide subsidies/ incentives on this "Incremental Sale" of goods manufactured in domestic units i.e within India.
Objective	▪ The objective is to **make domestic manufacturing globally competitive** and to **create global Champions in manufacturing.**
Strategy	▪ Thestrategy behind schemeis to offer **companies incentives on incremental sales from products manufactured in India**, over the base year. ▪ They have been specifically designed to ✓ **boost domestic manufacturing in sunrise and strategic sectors**, ✓ curb cheaper imports and **reduce import bills**, ✓ improve **cost competitiveness** of domestically manufactured goods, and ✓ enhance domestic capacity and exports.
Working	
Sectors under PLI Scheme	**The 14 sectors are:** 1. *Mobile manufacturing,* 2. *Manufacturing of medical devices,*

	3. *Automobiles and auto components,* 4. *Pharmaceuticals,* 5. *Drugs, specialty steel,* 6. *Telecom & networking products,* 7. *Electronic products,* 8. *White goods (ACs and LEDs),* 9. *Food products,* 10. *Textile products,* 11. *Solar PV modules,* 12. *Advanced chemistry cell (ACC) battery, and* 13. *Drones and drone components.*
Significance of the Scheme	▪ It will **boost the Manufacturing Sector** that will fuel India's economic growth. ▪ It will also **reduce our import dependencies and spur domestic consumption**. ▪ It has its significance in **driving India's growth and creating jobs in the country at a large scale**. ▪ It will lead to integration with global market ▪ Spillover effects by the creation of a widespread supplier base for the anchor units. ▪ Massive primary and secondary employment opportunities. ▪ It will also enable increase in exports. ▪ The scheme envisages globally-integrated manufacturing in sectors such as automobile and auto components, pharmaceuticals, telecommunications, white goods and steel. These are crucial sectors in **terms of their strategic importance, contribution to the GDP.** ▪ PIL will encourage domestic manufacturers to seize emerging international opportunities, given the changing geo-political orientation of the world. *PLI Schemes are a cornerstone of the Government's push for achieving an Atmanirbhar Bharat.*
Evaluation of the PLI Scheme	▪ The Ministry of Electronics and Information Technology's PLI scheme for large-scale electronics manufacturing (LSEM) saw successful results, with **97% of mobile phones sold in India now being made in India.** ▪ Furthermore, they are also being **"Made in India for the World"** as we witness **a sharp growth in smartphone exports by 139% over the last three years.** ▪ As of September 2022, the PLI scheme for LSEM **attracted investments of ₹4,784 crore**, with a total production of ₹2,03,952 crore, while also **generating 41,000 additional jobs.** ▪ In the medium term, the scheme is **expected to generate 700,000 jobs.** ▪ Similar successes are replicated in the pharma sector PLI with **35 imported active pharmaceutical ingredients or key chemical inputs for drugs being developed in India.** ▪ In addition, other sectors, such as food products, telecom, and networking products, and drones are reporting successes with **visible**

	growth in investment, employment, and production. ▪ **Over 600 foreign and domestic firms have been selected across 14 key sectors in two years**, indicating enthusiastic industry participation. *The successes signal that the scheme is leading to the development of a potent ecosystem that is self-sustaining and thriving.*
Future Prospects	1. As the PLI scheme focuses on advanced technologies, it is **likely to upgrade the skills of the existing labor force**. 2. It will replace technologically obsolete machinery and **make the manufacturing sector globally competitive**. 3. The enhanced production volumes cater to **increasing consumer demand**. This can be seen for telecom and networking products, where timely intervention by the scheme will enable faster adoption of 4G and 5G products across India. 4. With PLI in green technologies, India can pioneer **green policy implementation with a reduced carbon footprint**. 5. Better productivity will create a thrust in free trade agreements for better market access.

3. 8 FISHERIES SECTOR IN INDIA

Context

- Union Minister Parshottam Rupala launched the sixth phase of 'Sagar Parikrama' in Andaman and Nicobar Islands.

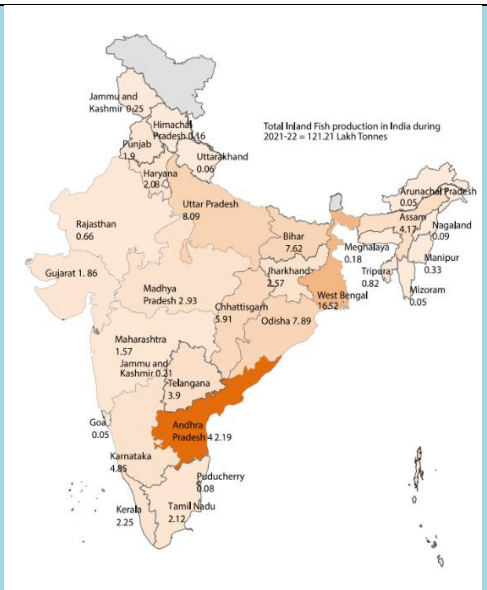
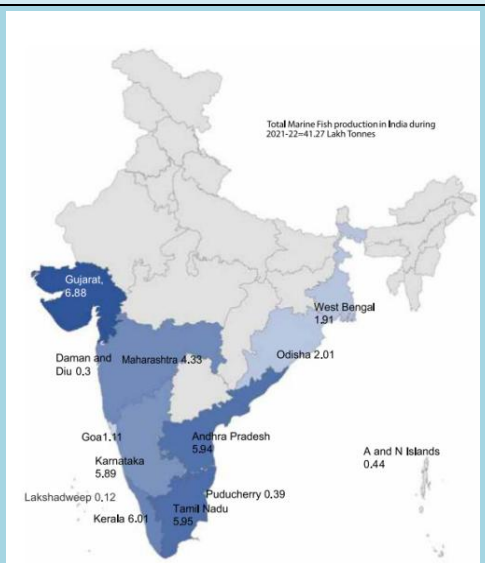
About Sagar Parikrama

- Sagar Parikrama' is an initiative taken by the central government **to conduct a voyage across all coastal states and union territories to support fishermen, traders, and other stakeholders related to the sector.**

Aim

- To resolve the issues of the fishers and other stakeholders and to facilitate their economic up liftment through various fisheries schemes and programs such as **'Pradhan Mantri MatsyaSampada Yojana' (PMMSY), 'Fisheries and Aquaculture Infrastructure Development Fund' (FIDF), an extension of Kisan Credit Card (KCC) to fishers and fish farmers.**

Share in Global Fish Biodiversity	• **India is home to more than 10% of the global fish biodiversity.**
India's Growth in Fish Production	• It has grown 22-fold since independence, skyrocketing **from 7.5 lakh tonne in 1950-51 to an extraordinary 162.48 lakh tonne in 2021-22.**
Rank in Fish Production	• India now holds the position of the **world's third-largest fish-producing countryand the second largest aquaculture fish producer in the world.**
Inland Fishery	• In 2000-01, inland fish production stood at 28.23 lakh tonne, and it soared to an impressive 121.21 lakh tonne in 2021-22, marking a **remarkable 400% increase.**

	•	
State's share	• Andhra Pradesh (27.4%) and West Bengal (13.8%) together produce about 41% of the country's total fish production.	
Marine Fish	• India's West Coast produces 59% and the East Coast produces 41% of total marine fish. • Gujarat, with 19% of the total marine fish production, is the leading marine fish producing State followed by Andhra Pradesh (16.4%) and Tamil Nadu (13.5%).	

Schemes and Programs	**<u>Pradhan Mantri MatsyaSampada Yojana (PMMSY)</u>**
	• Approved in 2020, it is a flagship scheme for focused and sustainable development of fisheries sector in the country
	<u>Fisheries and Aquaculture Infrastructure Development Fund (FIDF)</u>
	• FIDF provides concessional finance to the Eligible Entities (EEs), including State Governments/Union Territories and State entities for development of identified fisheries infrastructure facilities <u>through Nodal Loaning Entities (NLEs) namely</u>
	  ○ National Bank for Agriculture and Rural Development (NABARD),
	  ○ National Cooperatives Development Corporation (NCDC) and
	  ○ All scheduled Banks.
	• Under the FIDF, the Department of Fisheries provides interest subvention up to 3% per annum for providing the concessional finance by the NLEs at the interest rate not lower than 5% per annum.
	<u>Kisan Credit Card (KCC)</u>	

	• Launched in 1998, Kisan Credit Card Yojana is a scheme that offers short-term, revolving credit to farmers across India. • The scheme was further extended for the investment credit requirement of farmers viz. allied and non-farm activities in the year 2004. These include Animal Husbandry, Dairying & Fisheries Sector. **National Scheme of Welfare of Fishermen** • The Centrally Sponsored 'National Scheme of Welfare of Fishermen' envisaging to provide financial assistance to fishers for construction of house, community hall for recreation and common working place and installation of tube-wells for drinking water and assistance during lean period through saving cum relief component. **Blue Revolution** • Blue Revolution, the Neel Kranti Mission has the vision to achieve economic prosperity of the country and the fishers and fish farmers.
Challenges pertaining to the Fisheries Sector	• Illegal, Unreported, and Unregulated (IUU) fishing. • No additional aqua feed-consuming species or high-value fish. • Inadequate hatchery technology for new species introduction. • Inadequate Infrastructure and Technology. • Outdated fishing vessels, gear, and processing facilities. • Overproduction focusing on fewer species --- low prices and increasing volatility. • Poor quality fish delivered in poorly managed production systems. • Lack of proper cold chain and distribution systems. • Algal blooms. • Oxygen depletion in pond and fish gasping for air. • Overfishing. • Damage to the ocean floor. • Rising sea temperatures, ocean acidification. • Poor post-harvest handling, limited value addition, and inadequate market linkages.
Way Ahead	• **Minimize by-catches** of juveniles and non-target species. • Implementation of the **Code of Conduct for Responsible Fisheries.** • Fisheries sector must develop **effective quality assurance systems** to **comply with stringent international standards.** • Deploy more **scientific methods of production.** • Promote the **adoption of aquaponics**, a sustainable farming technique that combines fish farming with hydroponics. • **Improve the cold chain infrastructure** to minimize post-harvest losses. • **Establish well-equipped fish collection centers** near coastal areas and integrate them with modern storage facilities, transportation systems, and processing units. • **Training and financial assistance** for fish processing, packaging, and branding.

3. 9 GLOBAL DEPOSITORY RECEIPT

Context

- Tata Consumer Products on Tuesday said that it will delist its global depository receipts (GDRs) from the London Stock Exchange and Luxembourg Stock Exchange.
- Global Depository Receipt is a **foreign currency-denominated negotiable instrument**. Indian companies can trade their shares on international exchanges other than the US through a GDR. A foreign depository issues the depository receipt for an Indian company.
- The depository receipts trade like shares on the domestic exchange of that country. As a result, investors can buy and sell just like any other share.
- The Depository Bank is an intermediary **that acts as the custodian of the shares that the Indian company issues.** Thus, GDR helps Indian companies get access to foreign funds.
- For example, let's consider Wipro. The company wants to list its shares in Singapore. Wipro has to deposit a substantial number of shares with a Singapore Bank. The Singapore Bank will then issue a receipt against the shares. Therefore, every receipt given by the bank represents a particular number of shares of the company.

Features of GDR

- They are **negotiable financial instruments**. These instruments trade on the stock exchange like any other security.
- Indian companies **can get access to foreign funds through GDRs**. However, **only companies with a sound financial record of three years can get access to GDRs**. Thus, to obtain GDRs, Indian companies should get clearance from the Foreign Investment Promotion Board (FIPB) and the Ministry of Finance.
- The depository bank **can** convert the GDR into shares and trade them on their domestic stock exchange.
- These Receipts are foreign currency-denominated instruments. However, the shares are denominated in the local currency of the deposit receipt issuer.
- The investors get a dividend and bonus share of the underlying Global Depository Receipt.

How are GDRs Issued?

- Indian corporations issue their equity shares (in Indian rupees) to an overseas depository bank through a domestic custodian bank.
- The local custodian bank then acts as the overseas depository bank's agent and holds the equity shares in its possession.
- The overseas depository bank then provides GDRs (in foreign currency). The bank then converts the GDRs into shares to trade on the country's stock exchange. Thus, the country's investors can buy and sell the shares just like any other security.

3. 10 U.S DEBT CEILING

Context

- A divided U.S. House of Representatives passed a bill to suspend the $31.4 trillion debt ceiling.

What is the U.S. debt ceiling?

- **Created by Congress in 1917,** the debt limit, or ceiling, **sets the maximum amount of outstanding federal debt the U.S. government can incur**. Simply. it is **a legislative limit on the amount of national debt that can be incurred by the U.S.**

2023 National Debt and Debt Ceiling

- In January 2023, the total national debt and the debt ceiling both stood at $31.4 trillion.
- The U.S. government has run a deficit averaging nearly $1 trillion every year since 2001, **meaning it spends that much more**

money than it receives in taxes and other revenue.

- To make up the difference, it has to borrow to continue to finance payments that Congress has already authorized.
- Congressional action **to raise the debt ceiling** does not increase the nation's financial commitments, as decisions to spend money are legislated separately. Any change to the debt ceiling requires majority approval by both chambers of Congress.

How often has it been raised?

- **Raising or suspending the debt ceiling becomes necessary** when the government needs to borrow money to pay its debts.
- For much of the past century, raising the ceiling has been a relatively routine procedure for Congress. Whenever the Treasury Department could no longer pay the government's bills, Congress has acted quickly and sometimes unanimously to increase the limit on what it could borrow. **Since 1960, Congress has increased the ceiling seventy-eight times**, most recently in 2021.
- Congress can also choose to suspend the debt ceiling, or temporarily allow the Treasury to supersede the debt limit, rather than raise it by a specific amount. While this move was rare during the first ninety years of the ceiling's existence, Congress has suspended the debt limit seven times since 2013.

What would be the consequences if the United States breaches the debt ceiling?

- Potential repercussions of reaching the ceiling **include a downgrade by credit rating agencies, increased borrowing costs for businesses and homeowners alike, and a drop-off in consumer confidence** that could shock the United States financial market and tip its economy—and the world's—into **immediate recession.**
- Goldman Sachs economists have estimated that a breach of the debt ceiling would immediately halt about one-tenth of U.S. economic activity.
- A breach that leads to default **could cause the loss of three million jobs**, and **raise interest rates enough to increase the national debt by $850 billion**. In addition, **higher interest rates could divert future taxpayer money away from much-needed federal investments in such areas as infrastructure, education, and health care.**
- Failure to meet the government's obligations **would cause irreparable harm to the U.S. economy, the livelihoods of all Americans and global financial stability.**

3. 11 REDUCING DEPENDENCE ON COAL

Context

- The government is contemplating a ban on setting up new coal-based power stations.

India's Dependency on Coal for its Energy Needs

- India is the **second largest producer of coal in the world**, after China. India has the **fifth largest coal reserves in the world.**
- Currently, **coal accounts for approximately 70% of the country's electricity generation**, making it the largest single source of power.
- **Coal production in India during 2022-23 reached 893.08 million tonnes, showing a growth rate of 14.76%.**
- India is one of the **world's largest consumers and producers of coal**, making it a cheaper and more reliable solution to the country's ever-growing energy needs. Despite global efforts to shift towards cleaner and renewable energy sources, India's heavy reliance on coal continues. The rapid increase in India's energy demand is also a major factor contributing to its inability to reduce coal usage.

Coal – A necessary evil

- While formulating policies, there is always a **constant struggle between environmental concerns and economic needs.**

- The case of coal usage is no different. While it is evident that coal usage must be reduced as India faces the threat of climate catastrophes, it cannot be ignored that **coal is currently a necessary evil.**
- Reducing coal usage can only be considered when a viable sustainable model is in place.

Phasing out Coal- The possibility

- Coal usage **must be reduced in the long term as renewable energy becomes cheaper** in the coming years, while the cost of fossil fuels rises. The government should focus on reducing fossil fuel imports and establishing long-term energy security.
- Simply advocating for the cessation of coal usage without considering its implications is also problematic. For example, closing mines to promote energy transition must take into account the resulting economic costs to coal-producing states. The coal sector provides revenue to several states and contributes 400 rupees per tonne to GST compensation.
- The challenge lies in assessing and supporting the population that is socioeconomically dependent, directly or indirectly, on mines and related activities. **Millions of people depend on coal for their livelihoods**, and the government will need to identify alternative sources of employment for them once coal mines or thermal power plants are closed.

Challenges to coal phase-out: Impact on livelihoods

- Coal production **supports millions of lives and livelihoods**– either directly or indirectly, and to varying degrees.
- A **coal exit would jeopardise these livelihoods**. It would also leave **indirect dependents employed by auxiliary services**– who are far greater in number - in the lurch. Examples include coal washery workers, traders, and transporters.
- Also, at risk are those with an induced dependence on coal, such as tea sellers, grocers, and other business owners in economic hubs close to mining areas.
- Finally, there is the informal coal economy, consisting of small-scale coal operations.
- Scholars estimate that around **10-15 million dependents live in India's coal belt.**

Role of Coal in Transitioning to Green Energy

- India has committed to **becoming a net-zero nation,** that is it will offset its emission impacting the climate, by 2070.
- India has set a target of achieving **450 gigawatts of renewable energy capacity by 2030.** India has made significant progress in increasing its renewable energy capacity, particularly in solar and wind. However, the intermittent nature of these sources and the associated challenges of storage and grid integration have hindered their widespread adoption.
- So, in addition to promoting clean energy, the **government may need to integrate coal along with other energy sources**. To achieve this, analysts recommend **upgrading existing coal power plants with advanced technologies such as supercritical and ultra-supercritical boilers, which can enhance efficiency and reduce emissions.**
- Upgrading existing coal power plants with advanced technologies, such as supercritical and ultra-supercritical boilers, **can also contribute to enhancing efficiency and reducing emissions during the transition phase.**

Addressing challenges: Need for a "Just Transition"

- Given the environmental and social impacts of coal use, **a phase-out is inevitable**. **Still, the shift** from coal to a cleaner energy basket should not exacerbate existing inequities or create new ones.
- It **should address the future of communities that have depended on the coal economy for decades**. This **holistic approach to the phase-out is what we mean by a "just" transition.**
- In India, **such a transition will only unfold gradually**.
- While a complete coal phase-out may take a few decades, we need to lay out **a**

meticulous, long-term plan for coal-dependent regions right now.

- The phase-out's pace and intensity **will largely depend on top-down governance**.
- Government policy is currently geared towards ramping up coal production to meet growing domestic demand and substitute imports. Shutting down coal operations will require a conscious shift in the coal policy agenda and deliberate planning and action.
- **Developing the agroforestry, fishery and ecotourism sectors could provide alternative sources of employment and economic opportunities to coal-dependent communities**.
- The government could use the cash crunch induced by the COVID-19 pandemic as an opportunity to direct funds earmarked for economic revival toward the transition.
- Finally, **decentralizing India's phase-out to the district level will aid the development of unique local solutions**.
- The **transition should be based on a socially inclusive and participatory planning process that** uses inputs from workers, unions, local communities, district-level administrators, environmental activists, and industrialists.
- To achieve a just transition, a planning architecture must be developed at the district level defining the timeframe, establishing an **inclusive transition planning mechanism, providing alternative employment opportunities for formal and informal workers in the short-term, planning economic diversification, including industrial restructuring, improving social and physical infrastructure and identifying financial resources to** support the whole process of a just transition.
- For "just transition" to work, support is needed from various quarters including a strong national and state government policy and financial support, a diverse coalition among stakeholders, local engagement, economic diversification and social security planning, social and physical infrastructure development, and serious public and private sector investment.

Closing Remarks

- At the 2021 global climate forum in Glasgow known as COP26, India publicly promised a "phase down" of coal.
- While India's green energy transition is largely on course, concerted efforts are needed to overcome the challenges of intermittency, storage, grid integration, policy implementation, and regulatory frameworks.
- India needs to invest in advanced technologies, improve infrastructure, and create an enabling environment for renewable energy to achieve the clean energy transition.

COAL INDUSTRY:

3. 12 EDIBLE OIL PRICE TRENDS

Context

- Global prices of edible oils, which hit an all-time high after Russia's invasion of Ukraine, have crashed.

Global Oil Price: Trends

- The UN Food and Agriculture Organization's global vegetable oils price index (2014-16 base period value = 100) plunged to a low of 77.8 points in May 2020 at the height of the worldwide Covid lockdowns.

- It soared to an all-time-high of 251.8 in March 2022 after Russia's invasion of Ukraine. As Ukraine and Russia together accounted for nearly 58% of the world's production of this oilseed in 2021-22. As the war shut off their supplies through the Black Sea ports, prices skyrocketed.
- But by April 2023, it was down to a 29-month-low of 130 points.

What led to the fall in prices?

- The situation changed with the **Black Sea Grain Initiative agreement** between Russia and Ukraine signed on July 22. The deal, brokered by the UN and Turkey, facilitated the safe navigation of vessels carrying grain and foodstuffs from three designated Ukrainian ports.
- The opening of the corridor helped much of the sunflower oil, meal, and seed that had accumulated in Ukraine to be shipped out. It led to international vegetable oil prices falling below even pre-war levels.

What does this translate into for India?

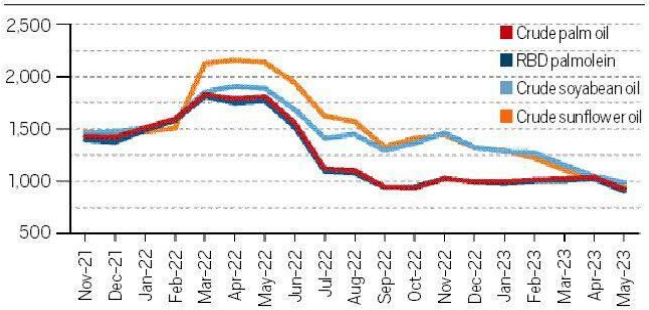
- India consumes 23.5-24 million tonnes (mt) of cooking oil annually, out of which 13.5-14 mt is imported and the balance 9.5-10 mt produced from domestically cultivated seed.
- Sunflower is the fourth largest consumed oil (2-2.5 mt), behind mustard (3-3.5 mt), soyabean (4.5-5 mt) and palm (8-8.5 mt).
- The table above shows India's edible oil imports at 8 mt during November-April 2022-23, a 22.3% increase over the 6.5 mt for the corresponding six months of the previous oil year.
- At the present rate, total imports for this oil year (November-October) may well surpass the record 14.9 mt of 2018-19.

IMPORT OF EDIBLE OILS (lakh tonnes)

	Palm Oil	Soyabean	Sunflower	TOTAL
2017-18	87.01	30.47	25.25	145.17
2018-19	94.09	30.94	23.51	149.13
2019-20	72.17	33.84	25.19	131.75
2020-21	83.21	28.66	18.94	131.32
2021-22	79.15	41.72	19.44	140.30
2021-22*	32.26	22.07	11.10	65.43
2022-23*	49.09	17.26	13.67	80.02

*Note: Figures are for Oil Year (Nov-Oct); *Nov-Apr.* *Source: The Solvent Extractors' Association of India.*

AVERAGE GLOBAL VEGETABLE OIL PRICES ($/tonne, CIF India)



Note: May 2023 prices are for May 19.

3. 13 MAKING AGRICULTURE VIABLE

Context

- Policymakers have been striving hard to make Indian agriculture economically viable for a long time.

Indian Agriculture

- Agriculture is **the primary source of livelihood for ~55% of India's population**.
- India has the **world's largest cattle herd (buffaloes), largest area planted to wheat, rice, and cotton, and is the largest producer of milk, pulses, and spices in the world.**
- It is the **second-largest producer of fruit, vegetables, tea, farmed fish, cotton, sugarcane, wheat, rice, cotton, and sugar.** Agriculture sector in India holds the record for **second-largest agricultural land in the world generating employment for about half of the country's population.** Thus, farmers become an integral part of the sector to provide us with means of sustenance.

Key challenges facing Indian agriculture

- **Small and fragmented landholdings:** The average farm size in India is small, with

around 85 percent of farms being less than 2 hectares in size, which can make it difficult for farmers to be profitable.

- **Water scarcity:** India has a high population density and a large agricultural sector, which puts a strain on water resources, making it difficult for farmers to irrigate their crops.
- **Soil degradation:** Unsustainable farming practices, such as overuse of pesticides and fertilizers, have led to soil degradation and reduced crop yields in many parts of India.
- **Lack of access to markets:** Small farmers in India often have difficulty accessing markets to sell their products, which can limit their income and economic growth.
- **Food security:** India has a large population and a high level of food insecurity, which requires increasing food production and ensuring that food is accessible and affordable for all.
- **Climate change:** India is particularly vulnerable to the impacts of climate change, such as changing weather patterns and increased frequency of extreme weather events, which can reduce crop yields and make farming more difficult.
- **Pest and disease:** Pests and diseases can have a significant impact on crop yields in India, and they are difficult to control due to the lack of effective pest management systems in place.
- **Labor shortage:** Many farmers in India are facing labor shortages as a result of immigration policies and a lack of interest in farming as a career.
- **High-cost of production:** The cost of production is increasing, including the cost of inputs such as seeds, fertilizer, and fuel, which can make it difficult for farmers to be profitable.
- **Technological gap:** Not all farmers in India have access to advanced technologies, such as precision agriculture, which can limit their ability to increase productivity and efficiency.

Policy options for agriculture

Digitalisation of agriculture:

- Agri start-ups have been helping in putting the 'farmer first' in supplying seeds, fertilizers, pesticides directly through apps/call centers/channel partners, obtaining loans, buying crop insurance, and selling their produce at the best price.
- These new-age ventures make the life of farmers easy through their **'full-stack solutions, from 'seed to market'.**
- Gurugram-based DeHaat caters to 15 lakh farmers covering over 35 crops, through artificial intelligence, machine learning, and data analytics.
- Typically, the farmers with smartphone can access digitalized agri-services for agri-inputs, farm advisory, and marketing of agri-produce.

Integrated/natural farming:

- Integrated/natural farming is recommended for some farmers who cultivate on uneconomic land holdings.
- If the farmer opts for integrated farming i.e., a couple of milch animals, backyard poultry, fish pond alongside vermi-culture for generating natural manure, he will be self-reliant and financially empowered.
- Family labour is the most important component of integrated farming, which makes it commercially viable and environmentally sustainable.

Climate-smart agriculture:

- It is imperative to shift to eco-friendly agri-inputs such as Nano Urea which is cost-effective, ease in logistics, apart from enhancing crop yields substantially.
- In fact, a 500 ml bottle of Nano Urea costs around Rs240 and it can replace a 45 kg bag of urea, which costs around Rs3,000 in the open market.

Adopting best farm practices - Example of Israel:

- Though Israel does not have conducive climate for cultivation of agriculture, water resources, and more than half of its land area is desert, it is a major exporter of farm-produce and a global leader in agricultural technologies including Internet of Things.
- Agriculture in Israel is based on co-operative principles that are practised mainly by two farming communities namely Kibbutz and

Moshav who follow social equality, co-operation and mutual aid in generating agricultural output in the most productive manner.

Say 'no' to informal credit:

- A recent field survey in 5 States (Telangana, Karnataka, Odisha, Uttar Pradesh and West Bengal) shows that money lenders/traders/landlords, still exist in rural India despite the availability of formal sources of finance from banks/financial institutions.
- So besides easing access to formal credit, farmers need to be counselled on financial prudence.

Leveraging Collectives:

- Convergence of SHGs, Farmers Producer Organisations (FPOs) and Co-operatives will lead to better bargaining power of farmers in terms of
  - bulk procurement of inputs at a discounted price,
  - economies of scale in transportation and warehousing,
  - access to low cost institutional finance, farm mechanisation (drones for monitoring of crops and spraying of fertilisers and plant protection chemicals, etc.),
  - aggregation in selling of agri-produce at remunerative prices.

Development of agri-value chains:

- Key drivers of agri-value chains are customer focus, infrastructure, technology, training & capacity building.
- VAPCOL, a multi-state farmer producer company based in Maharashtra, is a case in point.
- It has a membership of 55 FPOs covering over 40,000 tribal farmers spread across seven States.
- Development of agri-export clusters may be encouraged besides managing the risks of monsoon and market.

GOVT. INITIATIVES TO PROMOTE AGRICULTURE: QR CODE:

3. 14 SHORT TOPICS

Foreign Exchange Management Act (FEMA)

Context

- The Enforcement Directorate carried out searches at the premises of Byju Raveendran, the founder and chief executive officer of 'Think and Learn Private Ltd' that runs edtech platform under the name of BYJU's.
- The probe agency carried out searches under the provisions of Foreign Exchange Management Act (FEMA).

QR CODE: READ ALL ABOUT FEMA:

About

- The Foreign Exchange Management Act, 1999 (FEMA), is an Act of the Parliament of India **"to consolidate and amend the law relating to foreign exchange with the objective of facilitating external trade and payments and for promoting the orderly development and maintenance of foreign exchange market in India".**

- It was **passed in 1999 in parliament**, replacing the Foreign Exchange Regulation Act (FERA). This act makes offences related to foreign exchange civil offenses. It **extends to the whole of India.**

Ratnagiri Super Refinery Project

Context

- Ratnagiri super refinery project once again landed in a controversy with locals taking to the streets during the soil-testing surveys.

The Ratnagiri Refinery and Petrochemical Limited project

- The project was **first introduced in 2015.**
- The project was meant to be **an "ultra" refinery for crude oil, spanning over 16,000 acres**of land across 17 villages, with the main refinery to be at Nanar.
- However, the project was met with strong opposition from local, who protested to ensure the project did not go forward.
- Later, there were again talks that the Nanar oil refinery project in the Konkan region may be revived.

Nationwide AHDF KCC Campaign

Context

- As part of Aazadi Ka Amrit Mahostav, Nationwide AHDF KCC campaign officially launched.

Details

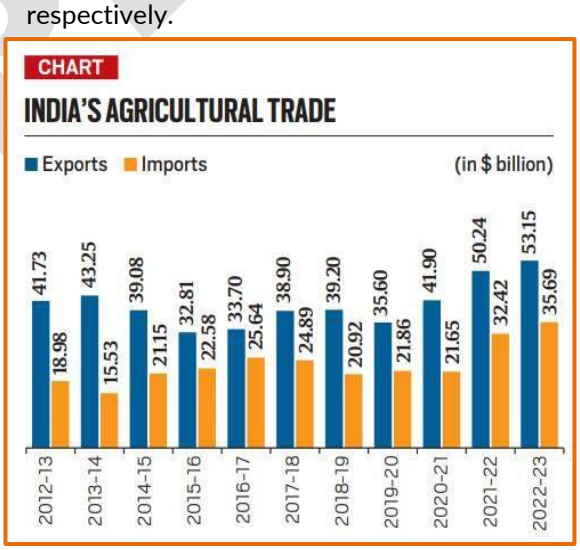
- Department of Animal Husbandry and Dairying, along with Department of Fisheries (DOF) and the Department of Financial Services (DFS), is organizing a "Nationwide AHDF KCC Campaign".
- The campaign is **aimed to extend Kisan Credit Card facility to all small landless farmers engaged in animal husbandry and fisheries activities.**

QR CODE: ***KCC***

Agricultural Trade Statistics

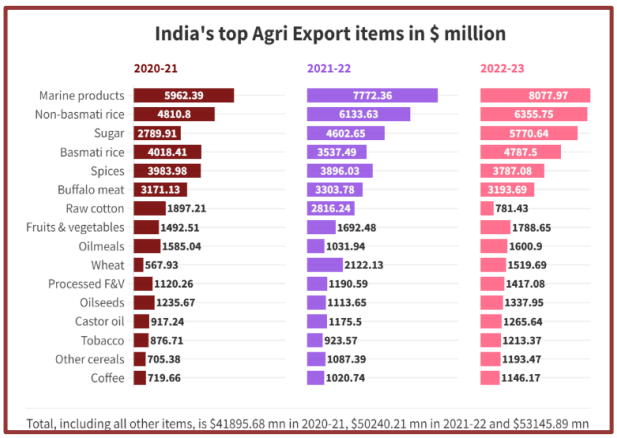
Context

- Provisional data from the Department of Commerce shows total farm exports at $53.15 billion and imports at $35.69 billion during 2022-23.
- The figure surpassing their previous year's records of $50.24 billion and $32.42 billion respectively.



Findings of the Report

- The resultant **agricultural trade surplus has marginally dipped from $17.82 billion to $17.46 billion.**
- The surplus narrows further if one adds the import of fertilizers, which have risen from $14.17 billion in 2021-22 to $17.21 billion in 2022-23.
- Between 2013-14 and 2015-16, exports sharply fell from $43.25 billion to $32.81 billion. The basic driver was global prices.



- The UN Food and Agriculture Organization's Food Price Index (FPI) crashed from an average of 119.1 points in 2013-14 to 90 points in 2015-16. However, imports continued to rise, bringing down the farm trade surplus from a peak of $27.72 billion in 2013-14 ($21.46 billion net of fertilizer imports) to a low of $8.05 billion by 2016-17.
- The FPI – a **weighted average of world prices of a basket of food** commodities over a base period value (2014-16=100) – recovered to 102.5 points by 2020-21, and further to 133 points in 2021-22 and 139.5 points in 2022-23.
- These made **India's agri-commodities more globally price competitive**, exports also soared to $41.90 billion, $50.24 billion and $53.15 billion during these three years.

Major export contributors

- India's agri exports have, in recent times, been powered by three items: **Marine products, rice and sugar.**

Marine products

- Marine product exports have grown steadily from $5.02 billion in 2013-14 to $8.08 billion in 2022-23.

Rice exports

- **Rice exports have also gone up during this period**, from $7.79 billion to $11.14 billion. But it's been **driven by non-basmati rice** (more than doubling, from $2.93 billion to $6.36 billion), with the value of premium-priced basmati shipments actually declining (from $4.86 billion to $4.79 billion).
- Basmati exports are mainly to the Persian Gulf countries and, to some extent, the US and UK. Non-basmati shipments are more diversified, with the destinations spread across Asia (Bangladesh, China, Sri Lanka, Malaysia, Vietnam, UAE and Iraq) and Africa (from Senegal, Ivory Coast and Benin to Somalia and Madagascar). It's non-basmati that has made India the biggest rice exporter, ahead of Thailand.

Sugar Exports

- The **boom in sugar exports has been more recent** – from a mere $810.90 million in 2017-18 to $1.97 billion in 2019-20, $2.79 billion in 2020-21, $4.60 billion in 2021-22 and $5.77 billion in 2022-23
- **Indian mills have built markets for both raw sugar** (among refineries in Bangladesh, Indonesia, Malaysia, Saudi Arabia and Iraq) and regular plantation whites (in African countries, Afghanistan, Sri Lanka and China). The country has, in the process, emerged as the world's No. 2 exporter after Brazil

Spices Exports

- Two items whose exports had registered substantial increases, only to falter in the last few years, are spices and buffalo meat.
- **Spices exports jumped from $2.5 billion in 2013-14 to almost $4 billion in 2020-21**. It was led not by traditional plantation spices such as pepper and cardamom, but by chilli, mint products, cumin, turmeric, ginger, coriander, fennel and other seed spices. However, exports have since stagnated.

Buffalo Meat

- Buffalo meat shipments, too, have never regained their peak of $4.78 billion reached in 2014-15.

Raw Cotton, Guar-Gum and Oil Meals

- The drop has been **even more for raw cotton, guar-gum and oil meals.** Exports of the three in 2022-23 ($781.43 million, $617.14 million and $1.6 billion) were a pale shadow of their highs of 2011-12 ($4.33 billion for cotton) and 2012-13 ($3.92 billion for guar-gum and $3.04 billion for oil meals).

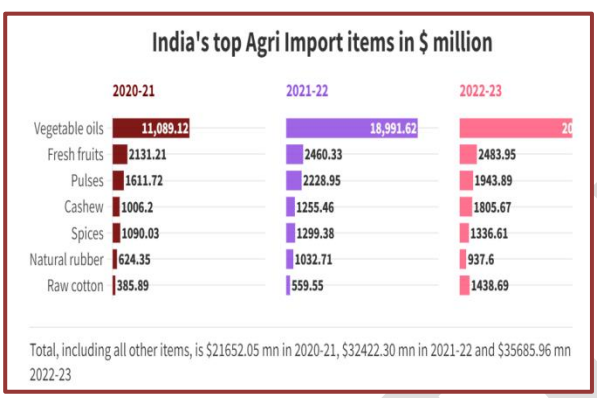
Genetically-Modified BtCotton

- **Cultivation of genetically-modified Bt cotton and high global prices** had enabled India to become the world's top producer (ahead of

China) and No. 2 exporter (after the US) of the natural fibre. But with the yield gains from Bt tapering off and the regulatory regime not permitting new gene technologies, the country has turned from a net exporter to an importer of cotton.

Guar-gum

- **Guar-gum (a thickening agent used in extraction of shale oil and gas) and oil meal exports** rode the global commodity price boom from 2003-04 to 2013-14. They haven't shown the same buoyancy in the more recent post-Covid boom, partly due to domestic crop shortages – especially in cotton and soyabean – not generating adequate surpluses for exports.



Imports profile

- Unlike exports, India's imports of farm produce are dominated by a handful of items.
- The most significant is **vegetable oils, whose imports have more than doubled in value terms**, from $9.67 billion to $20.84 billion between 2019-20 and 2022-23.
- **Imports meet roughly 60% of India's vegetable oil requirements**. That dependence is hardly 10% now in pulses, with the value of imports also coming down from $4.24 billion (6.7 mt) in 2016-17 to $1.94 billion (2.5 mt) in 2022-23.
- On the other hand, **imports of spices, cashew and cotton – commodities where India has traditionally been a net exporter – have shown a rising trend.** Spice imports going up are a reflection of reduced-price competitiveness (vis-à-vis Vietnam in pepper and Guatemala in pepper), while an outcome of stagnant, if not falling, domestic production in cotton.

Real Estate (Regulation And Development) Act, 2016

Context

- The 4th meeting of the Central Advisory Council (CAC) constituted under RERA under the Chairmanship of Minister of Housing & Urban Affairs was held.

What is RERA Act?

- RERA stands for Real Estate Regulatory Authority came into existence as per the Real Estate (Regulation and Development) Act, 2016 which **aims to protect the home purchasers and also boosts the real estate investments**.

RERA Act and Rules

- The Real Estate (Regulation and Development) Act, 2016 under Section 84 envisions that **within a period of six months from its commencement date, State Governments will set the rules to carry out the provisions associated with the Act.**
- On 31 October 2016, the centre, **through HUPA (Housing & Urban Poverty Alleviation) Ministry**, released the general rules of the Real Estate (Regulation and Development) Act, 2016.
- All these rules are applicable to the Union Territories like Chandigarh, Lakshadweep, Daman & Diu, Dadra & Nagar Haveli and Andaman & Nicobar Islands.

Asset Management Company

Context

- SEBI is calling for asset management companies to set up surveillance as part of measures against fraudulent transactions.

What is an Asset Management Company?

- An Asset Management Company (AMC) is a **firm that invests the funds pooled from individual investors in securities with the objective of optimal return for investors in exchange for a fee**.
- AMC maintains the diversity of its portfolio by investing in both high-risk and low-risk

securities such as stock, debt, real- estate, shares, bonds, pension funds, etc.

- All the Asset Management Companies are governed by SEBI and AMFI.
- Securities and Exchange Board of India (SEBI) is the Indian Capital Market Regulator which governs and controls every AMC in India.
- The Association of Mutual Funds in India (AMFI) is a statutory body formed by mutual fund companies.
- All the regulatory bodies SEBI, AMFI, are governed by RBI.

Expected Credit Loss (ECL)

Context

- Lenders have sought a one-year extension from the RBI for implementation of the Expected Credit Loss (ECL)-based loan loss provisioning framework.

What is ECL?

- ECL is a **method of accounting for credit risk based on the loss likely to occur on a loan or portfolio of loans.**
- It is used to get an understanding of the potential future losses on financial assets and how those losses can be identified and addressed in the financial statements.
- Thus, through ECL, banks can estimate the forward-looking probability of default for each loan, and then by multiplying that probability by the likely loss given default, the bank gets the percentage loss that is expected to occur if the borrower defaults.

Legal Tender

Context

- The RBI has decided to withdraw ₹2,000 notes from circulation, but it has specified that these will continue to be legal tender.

All about Legal Tender

- Legal tender refers to a form of currency that can be in the form of a coin or a banknote that is recognized by law as an acceptable means for settling debts or obligations.
- The Government of India issues coins **under Section 6 of The Coinage Act, 2011**, which are **considered legal tender** for making payments or settling accounts, provided that the coins are undamaged and meet the prescribed weight requirements.
- **Coins with denominations equal to or higher than one rupee can be used as legal tender** for amounts up to one thousand rupees. Additionally, fifty paise (half a rupee) coins can be used as legal tender for amounts up to ten rupees. It is important to note that **while individuals cannot be compelled to accept coins beyond these specified limits, there are no restrictions on voluntarily accepting coins for amounts exceeding the mentioned limits.**
- Similarly, **banknotes issued by the Reserve Bank of India, such as Rs 2, Rs 5, Rs 10, Rs 20, Rs 50, Rs 100, Rs 200, Rs 500, and Rs 2000, are legal tender throughout India** and can be used for making payments or settling accounts based on the amount stated on the banknote.
- These banknotes are guaranteed by the Central Government, as per the provisions outlined **in sub-section (2) of Section 26 of the RBI Act, 1934.** Additionally, **Rs 1 notes issued by the Government of India are also recognized as legal tender.**
- However, it's worth noting that the **Rs 500 and Rs 1000 banknotes from the Mahatma Gandhi series, issued up until November 8, 2016, are no longer considered legal tender as of midnight on November 8, 2016.** [Due to demonetization]

Minimum Import Price

Context

- The central government has introduced the Minimum Import Price (MIP) for apples in Kashmir.

What is Minimum Import Price?

- Minimum import price (MIP) is **a temporary measure to provide protection to domestic farmers from predatory pricing of imports.** Below this price, import of the commodity is not allowed.

APTI PLUS

London Interbank Offered Rate (LIBOR) Benchmark

Context

- The RBI stated that some banks and financial institutions were yet to facilitate an absolute transition away from the London Interbank Offered Rate (LIBOR) benchmark.

LIBOR

- LIBOR, the acronym for London Interbank Offer Rate, is the **global reference rate for unsecured short-term borrowing in the interbank market**. It acts as a **benchmark for short-term interest rates**.
- In short **it is the benchmark interest rate at which major global banks lend to one another.**
- LIBOR is **administered by the Intercontinental Exchange**, which asks major global banks how much they would charge other banks **for short-term loans.** The rate is **calculated using the Waterfall Methodology**, a standardized, transaction-based, data-driven, layered method.

Angel Tax

Context

- Government and government-related investors such as central banks, sovereign wealth funds, international or multilateral organisations; entities registered with Securities and Exchange Board of India; and banks or entities involved in insurance business: These are among the categories of investors that are proposed to be exempted from the levy of angel tax.

About	• **Angel tax is a term used to refer to the** income tax payable on capital raised by unlisted companies via issue of shares where the share price is seen in excess of the fair market value of the shares sold**.** • **The investment in excess of fair value is characterised as 'Income from other sources' and the tax imposed on it is known as Angel Tax since it largely affects angel investors investing in startups.**
Genesis	• The **tax was introduced in the 2012** Union Budget by then finance minister Pranab Mukherjee to arrest the laundering of funds. • Angel tax essentially derives its **genesis from section 56(2)(viib) of the Income Tax Act, 1961.**
Exemptions from Angel Tax	• Allaying the concerns of the startup community, the government has exempted investments made by domestic investors in companies approved by an inter-ministerial panel from Angel Tax. • However, **in order to qualify for angel tax exemption, the startup should meet certain criteria which are as follows:** o The **paid-up capital and share premium of the startup should not exceed Rs. 10 crores** after issuing shares. o The startup should procure the fair market value certified by a merchant banker. The investor should have **a minimum net worth of Rs. 2 crores and the average income in the last 3 financial years should not be less than Rs. 50 lakh.** o The startup **should have received approval from an 8-member inter-ministerial board for angel tax exemption.**

Simplification of Compliance	• In order to simplify the compliance procedure, the government has done away with the requirements fair market value certificate issued by a merchant banker and approval from an inter-ministerial board. • The eligible startup can simply request an Angel Tax exemption from the Department of Industrial Policy & Promotion (DIPP) with applicable supporting documents. • The application of **DIPP-recognised startups will be forwarded to CBDT (Central Board of Direct Taxes)** along with the attached documents. • CBDT has been **mandated to accept or decline such an application within 45 days from the day of receipt.**

RBI's Surplus Funds

Context

- The board of RBI **approved a higher-than-expected dividend to the government in FY23 due to large dollar sales**

Details

- The Reserve Bank of India board **decided to nearly double its dividend to the government from official estimates due to revaluation gains and profits from selling dollars, which could help bridge the fiscal deficit.**

RBI's Dividend Pay-out: Mechanism

- The RBI pays dividends to the central government from the surplus income it earns on investments and valuation changes on its foreign exchange holdings, **including the dollar and the fees it gets from printing currency notes.**
- The RBI generates its profits primarily from interest earned through the sale and purchase of government securities, lending to banks, and interest on bond holdings through open market operations. The **surplus profit is calculated by subtracting operating expenditures and other costs stipulated in Section 47 of the RBI Act.** It can be understood as the residual income earned after subtracting the expenditure component from the RBI's balance sheet.
- The RBI is **obligated, as per Section 20 of the RBI Act 1934, to undertake receipts and payments for the Centre and conduct exchange, remittance, and other banking operations.**
- Section 47 of the RBI Act requires the RBI to make provisions for bad debts, depreciation in assets, staff contributions, superannuation funds, and other expenses provided by bankers. The **remaining profits are then paid to the central government.**

Mumbai Trans Harbour Link

Context

- The Mumbai Trans Harbour Link (MTHL), is **expected to be thrown open for the public.**

About	• **The Mumbai Trans Harbour Link, also known as the** Sewri–Nhava Sheva Trans Harbour Link**, (officially Shri Atal Bihari Vajpayee Trans Harbour Link) is an** under-construction 21.8 km **6-lane access-controlled expressway grade road bridge.**
Connections	• It will **connect Mumbai with Navi Mumbai, its satellite city.** • The bridge **will begin in Sewri, South Mumbai, will cross**

	Thane Creek north of Elephanta Island, and will terminate at Chirle near Nhava Sheva. • The road will be **linked to the Mumbai–Pune Expressway in the east and to the under-construction Coastal Road in the west.** • The bridge **will further be connected to the Mumbai-Pune Expressway and the Mumbai-Goa National Highway.**
Longest sea bridge in India	• The Mumbai Trans Harbour Link will be the **longest sea bridge in the country** with a total stretch of 16.5 km above the sea.

Major benefits of the Bridge	• The bridge connecting Mumbai with Navi Mumbai is expected to **provide major relief to commuters in Mumbai Metropolitan Region by mitigating traffic congestion**. • It **will also promote economic development**. • It will **allow people to travel from Sewri in central Mumbai to Chirle in Navi Mumbai in 15 to 20 minutes.** • This will lead to the **development of educational, industrial and service sectors in this area**. • This project **will save time, fuel, prevent pollution**.

3. 15 SNIPPET

3. 16 1 MAINS QUESTION AND 5 MCQS

Q. Despite being touted as the 'fastest growing aviation sector' in the world, Indian airlines have struggled to survive in the highly competitive and unforgiving aviation industry. What are the challenges facing the Aviation Industry? Give recommendations that can revitalize the Aviation Sector.

India has Asia's largest aviation industry and it is the world's third-largest air passenger market. There are currently 148 airports in the country and it is the third-largest domestic market in the world in terms of seat capacity. But the Indian aviation sector has struggled to remain financially viable, despite being a fast-growing market.

Challenges Facing the Aviation Industry

Aviation Turbine Fuel (ATF) Prices

- ATF accounts for almost 45% of the operational cost of an Indian airline.
- As per Boeing, **fuel costs for Indian airlines are 90% higher compared to their global peers**.

Other Operating Expenses

- Almost 35-50% of Indian airlines' operating expenses are **dominated by US dollars**. This means **depreciation in the rupee adversely impacts an airline's bottom-line growth**.

Elevated Debt Levels and Losses

- Due to a temporary halt in all airline operations at the peak of the pandemic and the subsequent rise in ATF pricing, the finances of Indian airline companies have been in disarray. **Losses to the tune of Rs. 23,000 crores were recorded in 2021**.

Stiff Competition

- There are over 15 airlines operational in India, with a heady **mix of low-cost, charter, and cargo airlines**. Indeed, the airfares have been slashed for the routes where these airlines have launched their flights.

Recommendations that can Revitalize the Aviation Sector

Tightening the PPP (Public Private Partnership) procurement and concession framework

(i) Implement the recommendations of the **Kelkar Committee report on revitalizing PPPs (2015)**, of which two key elements stand out

(ii) Providing tariff certainty – an essential tenet in any private sector contract to give comfort to both investors and users.

(iii) Ensure tight procurement timelines – process from tender invitation to award of contracts not exceeding 9 months.

Redefining our regulatory philosophy

- A tightly controlled regulatory framework for airports sometimes does not necessarily result in the best investment and commercial outcomes. It has increased the cost of regulation significantly and has adversely impacted interest from overseas investors.
- With tariff setting and commercial renegotiation mechanisms internalized in PPP contracts, **regulators can focus more on monitoring and enforcing the efficient preferred outcomes on service quality, including security, safety and sustainability KPIs that are essential elements of the airport and aviation businesses.**

Making Air Cargo Infrastructure a national priority

- There is a need to **revisit the National Air Cargo Policy**.

Rationalizing taxes across the board

- The cumulative impact of direct and indirect taxes in aviation is one of the highest in the world. Steps that need to be taken:
  - Rationalizing GST on Aviation Turbine Fuel (ATF).
  - Relief for MRO (Maintenance, Repair, Overhaul).
- It is time to have a joint action task force with representatives from the **Aviation, Tourism, Transport, Finance and Commerce Ministries** with a plan to make India the second largest tourism economy in the region after China. It will radically change the fortunes of both the aviation and tourism industries.

Q2. Consider the following statements:

1. Angel tax is a term used to refer to the income tax payable on capital raised by listed companies via the issue of shares where the share price is seen in excess of the fair market value of the shares sold.
2. In order to qualify for angel tax exemption, the paid-up capital and share premium of the startup should not exceed Rs. 10 crores after issuing shares.
3. The Angel Tax was introduced in the 2012 Union Budget by then finance minister Pranab Mukherjee to arrest the laundering of funds.

Which of the above statements are correct?

a) 1 and 2 only
b) 2 only
c) 3 only
d) 2 and 3 only

Answer: d

*Statement 1 is incorrect: Angel tax is a term used to refer to the income tax payable on capital raised by **unlisted** companies via*

the issue of shares where the share price is seen in excess of the fair market value of the shares sold.

Statement 2 and 3 are correct.

Q3. Consider the following statements:

1. Shri Atal Bihari Vajpayee Trans Harbour Link will connect Mumbai with Surat.
2. Bogibeel Bridge is the longest rail-cum-road bridge in India.
3. Bhupen Hazarika Setu is a 9.15 km beam bridge that goes over the Lohit River, one of the largest tributaries of the Brahmaputra River.

Which of the above statements are correct?

a) 1 and 2 only
b) 2 and 3 only
c) 2 only
d) 3 only

Answer: b

Statement 1 is incorrect: The Mumbai Trans Harbour Link, also known as the Sewri–Nhava Sheva Trans Harbour Link, (officially Shri Atal Bihari Vajpayee Trans Harbour Link) will connect Mumbai with Navi Mumbai, its satellite city.Statement 2 and 3 are correct.

Statement 2 and 3 are correct.

Q4. Consider the following statements:

1. National Scheme of Welfare of Fishermen is a central sector scheme that aims to provide financial assistance to fishers for the construction of houses, community hall for recreation and common working place and the installation of tube-wells for drinking water and assistance during lean periods through saving cum relief component.
2. India now holds the position of the world's largest fish-producing country and the second largest aquaculture fish producer in the world.
3. Kisan Credit Card Yojana is a scheme that offers short-term, revolving credit to farmers across India and the scheme was further extended for the investment credit requirement of farmers viz. allied and non-farm activities including the Animal Husbandry, Dairying & Fisheries Sector in the year 2004.

Which of the above statements are incorrect?

a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) 3 only

Answer: a

Statement 1 is incorrect: National Scheme of Welfare of Fishermen is a centrally sponsored scheme that aims to provide financial assistance to fishers for the construction of houses, community hall for recreation and common working place and the installation of tube-wells for drinking water and assistance during lean periods through saving cum relief component.

Statement 2 is incorrect: India now holds the position of the world's third largest fish-producing country and the second largest aquaculture fish producer in the world.

Statement 3 is correct.

Q5. Consider the following statements:

1. The Competition Commission of India is a Constitutional body established under the Competition Act, 2002, tasked with ensuring a fair and healthy competition in the economic activities of the country.
2. The appeals from the Competition Commission of India go to National Company Law Appellate Tribunal (NCLAT) constituted under the Companies Act, 2013.
3. The Chairperson and members of the Competition Commission of India shall be a person of ability, integrity and standing and who, has been, or is qualified to be a judge of a High Court, or, has special knowledge of, and professional experience of not less than fifteen years in international trade, economics, business, commerce, law, finance, accountancy, management, industry, public affairs, administration or in any other matter.

How many of the above statements are correct?

a) Only one
b) Only two
c) All of the above.
d) None of the above.

Answer: b

Explanation:

Statement 1 is incorrect: The Competition Commission of India is a statutory body established under the Competition Act, 2002, tasked with ensuring a fair and healthy competition in economic activities of the country.

Statement 2 and 3 are correct.

Q6. Consider the following statements:

1. Global Depository Receipt is a foreign currency-denominated negotiable instrument that helps Indian companies get access to foreign funds.
2. They are negotiable financial instruments and these instruments trade on the stock exchange like any other security.
3. To obtain GDRs, Indian companies should get clearance from the Foreign Investment Promotion Board (FIPB) and the Ministry of Finance.
4. Only companies with a sound financial record of five years can get access to Global Depository Receipts.

How many of the above statements are correct?

a. Only one
b. Only two
c. Only three
d. All of the above.

Answer: c

Statement 4 is incorrect: Only companies with a sound financial record of three years can get access to Global Depository Receipts.

Statement 1, 2 and 3 are correct.

4. DEFENCE & SECURITY

4. 1 4TH POSITIVE INDIGENISATION LIST

Context

- 'Aatmanir bharta' in Defence: MoD approves 4th Positive Indigenisation List of 928 strategically-important Line Replacement Units/Sub-systems/Spares & Components.

Details

- This fourth list is in **continuation to the previous three PILs which were published in December 2021, March 2022 and August 2022 respectively**.
- These lists contain 2,500 items which are already indigenised and 1,238 items which will be indigenised within the given timelines.
- Of 1,238, 310 items have been indigenised, so far.

Data on Defence Sector in India

Defence production	• **The** value currently stands Rs 1,06,800 crore (**crossed the figure of Rs one lakh crore for the first time ever).** • **The current value of defence production in FY 2022-23 is a rise of more than 12 per cent over FY 2021-22, when the figure was Rs 95,000 crore.** • **There is almost a** 200 per cent increase in the number of defence licenses issued to the industries in the last 7-8 years by the Government.
Defence Exports	• Defence exports reach an all-time high of approx. INR 16,000 crore in FY 2022-23, over 10-times increase since 2016-17. • GOI aims to achieve a turnover of **USD 25 Bn including export of USD 5 Bn in Aerospace and Defence goods and services by 2025.**
Military spending	• The Indian Defence sector, the **second largest armed force** is at the cusp of revolution. • India is positioned as the **3rd largest military spender in the world**, with its **defence budget accounting for 2.15% of the country's total GDP.**

Steps taken to boost domestic defence manufacturing

Industrial Corridors	• **Government has established 2 Defence Industrial Corridors in Uttar Pradesh and Tamil Nadu.**
FDI Policy	• **FDI in the defence sector is allowed up to 74% through automatic route (from earlier 49%) for companies seeking new industrial licenses.** • **FDI beyond 74% and up to 100% will be permitted under the Government route.** • **The cumulative FDI equity inflow in the Defence industry is USD 15.78 mn during the period April 2000 to December 2022.**
Procurement Policy	• **Defence procurement is governed by the Defence Procurement Procedure (DPP).** • **The latest revision of DPP was released in March 2016.** • **DPP focuses on institutionalising, streamlining and simplifying defence procurement procedure to give a boost to the "Make in India" initiative.**
Offset Policy	• **The key objectives of the defence offset policy are to leverage capital acquisitions to develop the domestic Defence industry.** • **The policy stipulates the mandatory offset requirement of a minimum of 30% for procurement of defence equipment by foreign defence players.**

	• **It is applicable to categories of procurements where the estimated cost of the acquisition proposal is USD 286.04 Mn or more.**
Industrial Licences	• **The initial validity period of industrial licenses has increased from 3 years to 15 years.** • **It also has a provision to grant an extension for a period of 3 years.**
Defence Acquisition Procedure (DAP)- 2020	• **DAP 2020 encourages indigenous designing and manufacturing of defence items.** • **The 'Make' Procedure aims to achieve the objective of self-reliance by involving greater** • **paticipation of Indian industries including the private sector through the following mechanisms:** • **Make-I (Government Funded): This involves the design and development of** • **equipment, systems, major platforms or upgrades thereof by the industry.** • **Make-II (Industry Funded): This includes design & development and innovative** • **solutions by Indian vendor, for which no Government funding is provided, but it has the assurance of procurement on successful prototype development.**
Defence Testing Infrastructure Scheme	• **Scheme to boost domestic defence & aerospace manufacturing** • **INR 400cr outlay to create state-of-the-art testing infrastructure in partnership with industry** • **Scheme was launched in May 2020.**
Defence Production and Export Promotion Policy 2020 (DPEPP)	• Ministry of Defence (MoD) has formulated a draft DPEPP 2020 as guiding document of MoD to provide a focused, structured, and significant thrust to defence production capabilities of the country for self-reliance and exports. • **Aero Engines:** Focus on establishing an Aero Engine Complex for civil and military applications and developing core technologies for Aero Engines. • **Maintenance, Repair & Overhaul:** Leverage favorable tax rationalization measures to promote MRO sector and enable convergence between Civil and Military MROs. • **Critical Technologies & Materials:** List of Critical Technologies and Materials to be identified and R&D strategies to be developed to attain indigenization.
Innovations for Defence Excellence (iDEX)	• An innovation ecosystem for Defence, namely "Innovations for Defence Excellence (iDEX)"was launched in April, 2018. • iDEX **aims at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries** including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has potential for future adoption for Indian defence and aerospace needs. • INR 1,000 crore have been allocated for iDEX related purchases, which will be increased further in the future. INR 500 crore have also been allocated separately to support startups for the next five years. • 139 iDEX winners have been provided grants/fund as of 28.2.2023.
Budget	• The total budgetary allocation for FY 2022-23 towards the Ministry of Defence (Civil) is INR 20,100 cr. • The total budgetary allocation for FY 2022-23 towards the Defence Services (Revenue) is INR 2,33,000.54 cr. • The total budgetary allocation for FY 2022-23 towards the Capital Outlay on Defence Services is INR 1,52,369.61 cr.

Challenges that have proved a hurdle to achieving self-reliance

Lack of growth in defence modernisation and defence capabilities

- This is mainly due to a
  - declining defence budget towards long-term investments, and research and development;
  - process inefficiencies and delays in domestic production by government lead organizations; and
  - the government's reluctance to grant defence contracts to India's private sector.

Budgetary issues

- Of the total defence budget for 2020-2021, 58.6% is allocated for salaries and pensions, whereas only 22.7% has been allocated for capital outlay.
- Further, India's budget allocation for research and development is only 4% of the total defence budget for 2020-2021.
- This is much lower compared to capital expenditure by technologically advanced countries like USA and China, which spend 12% and 20% of their defence budgets on research and development, respectively.

Lack of strategic planning for future needs of the Armed Forces

- In the emerging geopolitical scenario, the Indian Armed Forces has to remain operationally ready to respond to border threats.
- In order to meet these needs indigenously, there is a need to strategically and pragmatically plan for the needs of the Armed Forces and invest in long-term development of high-tech weapons.
- Commentators have argued that this is currently lacking in India's defence policy.

Production and time delays

- Indigenous defence production has been wrought with production delays.
- For example, India's first indigenously produced Light Combat Aircraft, HAL Tejas, faced a long production delay with HAL requiring a total of seven years to produce 16 aircrafts despite the estimated timeline of four years.

Hierarchal and skewed decision-making

- A 2018 internal report of the Ministry of Defence identified skewed decision-making process, bureaucratic red-tape and multiple decision-making heads as the reason for inordinate delays in defence procurement.

Suggestions for reform

Funds for Armed Forces

- The Indian government should consider reviewing the budget allocation for the defence to ensure adequate funds for the three forces relative to personnel costs.
- The government could also consider allowing the Armed Forces to raise their own funds by entering into for-profit public and private sector projects.

Decision-making and time delays

- **Representatives from the three forces should be included** in defence procurement and national security decision-making for a more inclusive and efficient decision-making.
- An external organization called the **Defence Capital Acquisition Authority should be set up outside the Ministry of Defence to reduce delays and corruption in defence procurement**.

4. 2 INNOVATIONS FOR DEFENCE EXCELLENCE

Context

- Innovations for Defence Excellence (iDEX), a flagship initiative of the Ministry of Defence, have **reached a milestone with the signing of its 250th contract.**

Details

- The first iDEX contract of Mission Def Space was exchanged between Additional Secretary (Defence Production) and CEO **Defence Innovation Organisation** and CEO, InspeCity,

one of the winners of the challenge **'Micropropulsion system for cubesats'.**

- Cubesats are a class of small satellites which are modular, low-cost, easy to manufacture, integrate, and launch, and form a critical component for launch-on-demand capabilities.
- InspeCity is developing a gas-based system for this purpose.

Mission DefSpace

- Recognising the strategic significance of the space domain, Prime Minister had launched Mission Def Space with **75 defence space challenges to be addressed by the private sector during Def Expo in Gandhinagar in October 2022**.
- It aims to nurture the Indian private space industry through challenges addressing every stage of a space mission -- from mission planning to satellite data analytics.

'SPRINT' initiative

- Under the 'SPRINT' initiative, a total of 75 challenge statements for the Indian industry were unveiled by Prime Minister during the Naval Innovation and Indigenisation Organisation (NIIO) seminar 'Swavlamban' in 2022.
- The initiative aims at inducting at least 75 technologies and products into the **Indian Navy** by August 2023 as part of the Azadi Ka Amrit Mahotsav.
- The iDEX achieved the milestone of signing its 50th iDEX SPRINT contracts in January 2023.

About iDEX

- An innovation ecosystem for Defence, namely "Innovations for Defence Excellence (iDEX)"was launched in April, 2018.
- iDEX **aims at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries** including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has potential for future adoption for Indian defence and aerospace needs.

Objectives, Functions, and Activities of DIO-iDEX

- The **core objectives of setting up the Defence Innovation Fund are to:**
  - Facilitate rapid development of new, indigenized, and innovative technologies for the Indian defence and aerospace sector, to meet needs for these sectors in shorter timelines
  - Create a culture of engagement with innovative start ups, to encourage co-creation for defence and aerospace sectors
  - Empower a culture of technology co-creation and co-innovation within the defence and aerospace sectors.
- **Adoption of innovation requires execution of three critical functions:**
  - Co-Innovation/co-creation - Discovery and exploration of existing technologies, or development of relevant technologies
  - Piloting of candidate technologies in important platforms, with quick feedback to the innovators
  - Indigenization of various defence and aerospace related platforms being manufactured in the country based on ToT
- The iDEX structure will need to perform all these three functions, in partnership with other competent stakeholders.
- iDEX will function as the executive arm of DIO, carrying out all the required activities.
- To execute the above functions, the **iDEX team will need to undertake the following activities: -**
  - Setting up and managing of the iDEX network in form of Independent Defence Innovation Hubs.
  - Communicate with innovators/start ups through the Defence Innovation Hubs regarding defence and aerospace needs.
  - Organizing various challenges/hackathons to shortlist potential technologies for defence and aerospace use.
  - Evaluate technologies and products coming from innovators/start ups in

terms of their utility and impact on the Indian defence and aerospace setup.
    - Enable and fund pilots, using innovation funds dedicated to the purpose.
    - Interface with the military (Army/Navy/Airforce) top brass about key innovative technologies and encourage their adoption into the defence establishment with suitable assistance.
    - Facilitate scale-up, indigenization and integration in manufacturing facilities for successfully piloted technologies.

Implementation Methodology

- iDEXis **funded and managed by a 'Defence Innovation Organisation (DIO)'** formed as a not for profit company as per Section 8 of the Companies Act 2013 for this purpose.
- The modalities of implementation of DIF are managed by a specialized team known as the Innovation for Defence Excellence (iDEX) within the DIO.
- DIO provides high level policy guidance to iDEX.
- iDEX will have **functional autonomy.**
- The **CEO of iDEX will be selected and recruited by the DIO** and will be a professional person of sound technical, scientific and engineering background with divergent knowledge and experience in innovation and research.
- CEO of iDEX would also be CEO of DIO thereby providing linkage between the high level policy guidance given by DIO and its implementation in a professional manner through iDEX.

Funding of DIO

- The DIO has been formed with a nominal capital under Sec 8 of the Companies Act by the two founder members i.e., HAL & BEL.
- The funding for DIO will come from:
    1. **Initial Contribution from HAL and BEL:** The corpus fund raised by HAL and BEL for DIO is presently conceived as Rs. 100 Crores, Rs. 50 Crores each from HAL and BEL.
    2. **Contribution from Defence PSUs:** It is proposed that the DPSUs will be required to contribute an amount of 2% of their net profits to DIO for creating the innovation ecosystem in the country.
    3. **CSR Funds:** Under guidelines for CSR, CSR funds can be used for eligible Incubators. Defence PSUs shall earmark 25% of their CSR funds for supporting iDEX in the country.
    4. **Funds from other PSUs/Government agencies/Departments**: Several technologies developed in defence and aerospace have dual applications, both in Defence/Aerospace sector and/or in civil/commercial sectors.

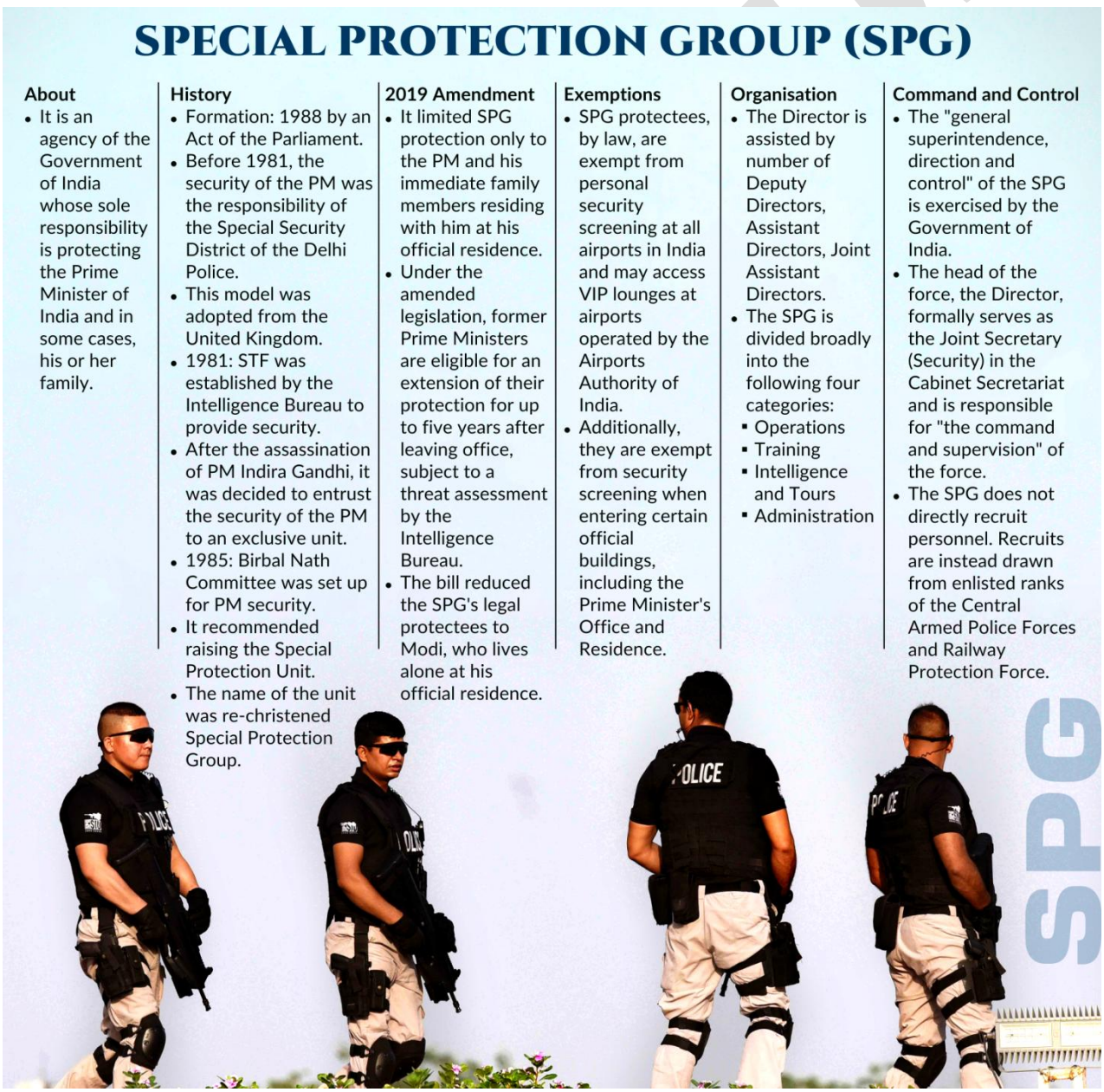
4. 3 SPECIAL PROTECTION GROUP

Context

- The Union Home Ministry notified fresh rules for the elite Special Protection Group (SPG).

What are the new rules?

- The rules **empower the Union government to frame standard operating procedures** (SOPs) to be followed by State governments or Union government departments, Army, local or any civic authority to aid the SPG in performing its duties.
- The rules said the **Director, SPG shall be appointed by the Union government "at a level of not less than the Additional-Director General of Police [ADG] from the Indian Police Service"**.
    - Earlier, the SPG has been headed by an Inspector-General of Police rank officer and an ADG rank officer, but no specific rules were notified yet.



4. 4 SHORT TOPICS

INS Magar

Context

- INS Magar, the **lead ship of Magar-class amphibious warfare vessels of the Indian Navy, was decommissioned after 36 years of service**.

Details

History	• **The vessel, which is the** oldest Landing Ship Tank **(Large) of the navy rested her oars.** • **INS Magar was** commissioned on July 18, 1987 **at Garden Reach Shipyard and Engineers Limited, Kolkata.**
Unique Feature	• The ship had the unique distinction of being the **first indigenous ship of the Indian Navy** with more than 5500 Gross Registered Tonnage (GRT).
Operations	• Over the last 36 years, the ship, which proved to be a doughty workhorse of the navy, has **participated in numerous operations, amphibious exercises and humanitarian missions.** • They include milestone operations like **Operation Pawan** and the **Op Samudra Setu**. • The ship was also instrumental in evacuation of over **1300 survivors post Tsunami in 2004** and had been part of several joint military exercises with the Indian Army.
Training Ship	• In 2018, the ship was converted into a Training ship and joined the **First Training Squadron at Kochi under the Southern Naval Command.**

ASEAN-India Maritime Exercise

Context

- In a step further in the expanding India-ASEAN (Association of South East Asian Nations) military cooperation, the **maiden ASEAN-India Maritime Exercise (AIME) is set to begin**, with war games in South China Sea.

Details

- The Navy chief is in Singapore for the exercise as well as to take part in the **International Maritime Defence Exhibition (IMDEX-23) and International Maritime Security Conference (IMSC)** being hosted by Singapore.
- AIME-2023 will provide an opportunity for Indian Navy and ASEAN navies to work together closely and conduct seamless operations in the maritime domain.

IMDEX-23	• **Since its inaugural edition in 1997, IMDEX, the maritime and defence exhibition has steered forward at the helm of the industry, becoming a platform for businesses of the sea to debut its latest vessels, systems and technologies.**
IMSC	• Established in 2009, the IMSC is co-organised by the Republic of Singapore Navy and the S. Rajaratnam School of International Studies (RSIS). • The conference brings together navy chiefs, coast guard director-generals, policy makers, strategic thinkers and maritime stakeholders to exchange ideas and discuss ways to enhance and foster mutual security in our maritime commons.

Air Force Heritage Centre

Context	• **Defence Minister Rajnath Singh inaugurated the nation's first Indian Air Force Heritage Centre.**
Location	• **Chandigarh**
Key Points	• The centre **highlights the IAF's role in various wars.** • It houses **five vintage aircraft** and will provide visitors with cockpit exposure and an experience with flight simulators. • It also houses the **first IAF-made patent aircraft Air Force 'Kanpur-1 Vintage Prototype Aircraft'**, a single-engine indigenous flying machine designed and built by the late Air Vice Marshal Harjinder Singh in 1958 at Base Repair Depot Kanpur. • Gradually, this centre **will also be updated about various rescue operations being undertaken by the IAF** all over the country and at the world level.

Storm Shadow Missile

Context	• **Russia said that Ukrainian aircraft had struck in the Russian-held city of Luhansk in eastern Ukraine with Storm Shadow long-range cruise missiles supplied by Britain.**
About the Missile	• The Storm Shadow / SCALP is a **long-range, air-launched, stand-off attack missile offered by France-based MBDA Systems** primarily for the UK and French armed forces. • It is derived from the MBDA Systems' Apache anti-runway missile. • The Storm Shadow can engage the targets precisely in any weather conditions during day and night. • The long range and low attitude combined with subsonic speed make the Storm Shadow a stealthy missile.
Uses	• The missile is intended to strike high-valued stationary assets such as airbases, radar installations, communications hubs and port facilities.
Countries using it	• The Storm Shadow is **also in service with the air forces of Egypt, India, Italy, Greece, Saudi Arabia, Qatar and the United Arab Emirates** (UAE).

Territorial Army

Context	• **Ministry of Defence, Department of Military Affairs, has approved amendment to existing cadre management provisions for Women Officers of the Territorial Army (TA).**
Background	• Territorial Army had **commenced Commissioning of Women Officers in TA since 2019**. • Thus far these Woman Officers were able to serve Ecological Task Force Units, TA Oil sector units and TA Railway Engineer Regiment. • The **Territorial Army is based on a Citizen Soldiers' army concept** and officers undergo Annual Training on basic military skills while remaining gainfully employed in civilian life.
Details	• Women Officers of the

	Territorial Army **will now be posted with Engineer Regiments of the Territorial Army** serving along the Line of Control and as staff officers at TA Group Headquarters.
History	• **The English raised the Territorial Army in 1920 through Indian Territorial Act of 1920 and comprised of two wings namely – 'The Auxiliary Force' for Europeans & Anglo-Indians, and 'The Indian Territorial Force' for Indian Volunteers.** • **After Independence the Territorial Army Act was passed in 1948 and the first Indian Governor General Shri C Rajagopalachari formally inaugurated the Territorial Army on 09 October 1949.** • **This day is celebrated as the TA Day every year.** • The Territorial Army is a **part of Regular Army.**

Operation Karuna

Context	• **INS Gharial brought ten medical pallets as High availability disaster recovery supplies for the people affected by Cyclone Mocha in Myanmar as part of Operation Karuna.**
About INS Gharial	• INS Gharial is a **Magar-class amphibious warfare vessel** of the Indian Navy.
About Magar Class	• The Magar -class landing ships are **amphibious warfare vessels of the Indian Navy, currently in active service.** • **Only two ships of the class were designed and built by Hindustan Shipyard Limited**, with fitting completed at Garden Reach Shipbuilders and Engineers. • The design of the class is based on the Round Table-class ships formerly operated by the Royal Navy. • They can operate two medium-lift helicopters, which are primarily meant for inserting small teams of special forces (e.g. MARCOS). • To discharge a ship's cargo and most of the troops, it needs to be beached, so that it can utilize its bow-door, similar to an LST. • **The ships are stationed at the naval base in Visakhapatnam on India's east coast.** • **Ships:** Magar L20(Decommissioned) and Gharial L23(Active).

Zorawar Tank

Context	• **The light tank Zorawar** being jointly developed jointly by the DRDO and private sector firm L & T **is expected to be ready for trials in the high-altitude mountainous border with China by the end of this year.**
Need	• In the terrain along the Line of Actual Control (LAC) in eastern Ladakh, the Indian Army had to deploy heavier tanks-not meant for high altitude areas. Rather they are good to be deployed in deserts and plains. • Zorawar tanks are to be **deployed in High Altitude Areas (HAA) to counter**

	Chinese deployment of similar armoured columns along the LAC. • India's adversaries both Pakistan and China have already inducted state-of-the-art tanks, which are technologically advanced and have a mix of medium weight as well as Light Tanks with high power to weight ratios.
Features	• These Indian Light Tanks (ILT) should be armed with Artificial Intelligence (AI), integration of tactical surveillance drones which will provide a high degree of situational awareness. • **This project of Light Tanks has been named after Zorawar Singh Kahluria, who was a military general. He had served under Jammu's Raja Gulab Singh, who according to officials is known as the 'conqueror of Ladakh'.** • It has been designed in such a way that it will be able to operate in varying terrain from High Altitude Area, island territories as well as marginal terrain. • The Army also wants the light tank to be amphibious, so it can be deployed across riverine regions and even the Pangong Tso Lake in Eastern Ladakh.

Exercise 'Sudarshan Shakti 2023'

Context	• The **Sapta Shakti Command** of the Indian Army conducted exercise 'Sudarshan Shakti 2023' along the western borders in Rajasthan and Punjab.
Aim	• The primary objective was to **initiate the transformation of the Indian Army** by embracing new technologies and adopting innovative strategies. • The exercise was **designed to validate operational plans in a network-centric environment** with elements of combat power, combat support and logistic support.

Key Points	• Integrated use of force multipliers like special forces and deployment of niche technologies covering drones, loiter ammunition as well as key aspects of electronic warfare, made it a unique event.
	• The exercise **highlighted the integrated use of force multipliers and specialized capabilities**.
	• Sudarshan Shakti 2023 **contributed to the five pillars of transformation** outlined by Chief of Amry Staff General Pande:
	  ○ Operational preparedness
	  ○ Force modernization
	  ○ Human resource development
	  ○ Strategic partnerships
	  ○ Jointness among the armed forces.

National Advanced Surface-to-Air Missile System

Context	• United States announced the approval of a $285 million sale of a NASAMS air defense system and related equipment to Ukraine.
Aim	• Acquiring and effectively deploying this capability will enhance Ukraine's ability to

	defend its people and protect critical national infrastructure.
About NASAMS	• NASAMS stands for **National/Norwegian Advanced Surface-to-Air Missile System.** • It is a **medium-to long-range air defense system that was developed jointly by the Norwegian company Kongsberg Defense & Aerospace and the American company Raytheon**. • The system is used to protect critical infrastructure and military installations against airborne threats, such as fixed-wing aircraft, helicopters, unmanned aerial vehicles (UAVs), and cruise missiles.

4. 6 SNIPPETS

4. 7 1 MAINS QUESTION AND 5 MCQS

Q1. In one more step towards Aatmanirbharta' in Defence, the Ministry of Defence has approved 4th Positive Indigenisation List. Enumerate the various challenges that have proved a hurdle to achieving self-reliance in the sector. What solutions do you suggest in this regard? (250 words)

MoD has approved the 4th Positive Indigenisation List of 928 strategically-important items. This fourth list is in continuation to the previous three PILs which were published in December 2021, March 2022 and August 2022 respectively.

Aatmanirbharta' in Defence Sector in India

- The value currently stands Rs 1,06,800 crore (crossed the figure of Rs one lakh crore for the first time ever).
- Defence exports reach an all-time high of approx. INR 16,000 crore in FY 2022-23, over 10-times increase since 2016-17.

- There is almost a 200 per cent increase in the number of defence licenses issued to the industries in the last 7-8 years by the Government.

Challenges that have proved a hurdle to achieving self-reliance

- Lack of growth in defence modernisation and defence capabilities
- Budgetary issues
- Lack of strategic planning for future needs of the Armed Forces
- Production and time delays
- Hierarchal and skewed decision-making

Suggestions for reform

- The Indian government should consider reviewing the budget allocation for the defence to ensure adequate funds for the three forces relative to personnel costs.
- The government could also consider allowing the Armed Forces to raise their own funds by entering into for-profit public and private sector projects.
- Representatives from the three forces should be included in defence procurement and national security decision-making for a more inclusive and efficient decision-making.
- An external organization called the Defence Capital Acquisition Authority should be set up outside the Ministry of Defence to reduce delays and corruption in defence procurement.

Q2. Which of the following statements with reference to Territorial Army is/are incorrect?

1. The Territorial Army is not a part of Regular Army.
2. The Territorial Army is based on a Citizen Soldiers' army concept and officers undergo Annual Training on basic military skills while remaining gainfully employed in civilian life.

Select the correct answer using the codes given below:

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Correct Answer: A

*The Territorial Army is a **part of Regular Army.** The TA units were **actively involved in 1962, 1965 and 1971 operations.** The "Terriers" have also taken part in OP PAWAN in Sri Lanka, OP RAKSHAK in Punjab and J&K, OP RHINO and OP BAJRANG in the North East in a most active manner. **Hence statement 1 is correct.** The Territorial Army officers undergo basic military skills so that they can **relieve the Regular Army from static duties and assist Civil Administration** in dealing with natural calamities and maintenance of essential services in situations where life of the communities is affected or the security of the Country is threatened and to provide units for Regular Army as and when required. **Hence statement 2 is correct.***

Q3. How many of the following statements with reference to Special Protection Group is/are correct?

1. The "general superintendence, direction and control" of the SPG is exercised by the Government of India.
2. Presently, Prime Minister Narendra Modi is the only SPG protectee.
3. The SPG directly recruits personnel.

Select the correct answer using the codes given below:

A. Only one
B. Only two
C. All three
D. None

Correct Answer: B

*The "general superintendence, direction and control" of the SPG is exercised by the Government of India. The **head of the force, the Director, formally serves as the Joint Secretary (Security) in the Cabinet Secretariat** and is responsible for "the command and supervision" of the force. **Hence statement 1 is correct.***

The 2019 Amendment** limited SPG protection only to the PM and his immediate family members residing with him at his official residence. Under the amended legislation, **former Prime Ministers are eligible for an extension of their protection for up to five years after leaving office**, subject to a threat assessment by the Intelligence Bureau. The bill reduced the SPG's legal protectees to Modi, who lives alone at his official residence. **Hence statement 2 is correct.

*The SPG does not directly recruit personnel. Recruits are instead drawn from enlisted ranks of the Central Armed Police Forces and Railway Protection Force. **Hence statement 3 is incorrect.***

Q4. *Which of the following statements with reference to INS Magar is/are incorrect?*

1. The ship had the unique distinction of being the first indigenous ship of the Indian Navy.
2. The ship, which proved to be a doughty workhorse of the navy, has participated in numerous operations, amphibious exercises and humanitarian missions.

Select the correct answer using the codes given below:

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Correct Answer: D

INS Magar was the lead ship of Magar-class amphibious warfare vessels of the Indian Navy. She was built by Garden Reach Shipbuilders and Engineers, Kolkata and was commissioned in 1987. ***Hence statement 1 is correct.***

The ship was involved in milestone operations like Operation Pawan to support Indian Peace Keeping Force in Sri Lanka and the Op Samudra Setu, wherein more than 4000 Indian nationals were repatriated from various corners of the world, during the COVID-19 pandemic. The ship was also instrumental in evacuation of over 1300 survivors post Tsunami in 2004 and had been part of several joint military exercises with the Indian Army. ***Hence statement 2 is correct.***

Q5. *How many of the following statements with reference to Zorawar Tank is/are correct?*

1. It has been indigenously developed by the private sector in India.
2. These tanks are not meant for high altitude areas.
3. This project of Light Tanks has been named after Zorawar Singh Kahluria, who was a military general.

Select the correct answer using the codes given below:

A. Only one
B. Only two
C. All three
D. None

Correct Answer: A

The light tank Zorawar ***being jointly developed jointly by the DRDO and private sector firm L & T. Hence statement 1 is incorrect.***

In the terrain along the Line of Actual Control (LAC) in eastern Ladakh, the Indian Army had to deploy heavier tanks-not meant for high altitude areas. Rather they are good to be deployed in deserts and plains. Zorawar tanks are to be ***deployed in High Altitude Areas (HAA) to counter Chinese deployment of similar armoured columns along the LAC. Hence statement 2 is incorrect.***

This project of Light Tanks has been named after Zorawar Singh Kahluria, who was a military general. He had served under Jammu's Raja Gulab Singh, who according to officials is known as the 'conqueror of Ladakh'. ***Hence statement 3 is correct.***

Q6. *Which of the following statements is/are incorrect?*

1. Mission Def Space_aims at inducting at least 75 technologies and products into the Indian Navy by August 2023.
2. iDEX is funded and managed by a Defence Innovation Organisation.

Select the correct answer using the codes given below:

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Correct Answer: A

Under the 'SPRINT' initiative, a total of 75 challenge statements for the Indian industry were unveiled by Prime Minister during the Naval Innovation and Indigenisation Organisation (NIIO) seminar 'Swavlamban' in 2022. ***Hence statement 1 is incorrect.***

iDEX is ***funded and managed by a 'Defence Innovation Organisation (DIO)'*** *formed as a not for profit company as per Section 8 of the Companies Act 2013 for this purpose.* ***Hence statement 2 is correct.***

APTI PLUS

5. ENVIRONMENT & ECOLOGY

5. 1 DEBT-FOR-CLIMATE SWAPS

Context

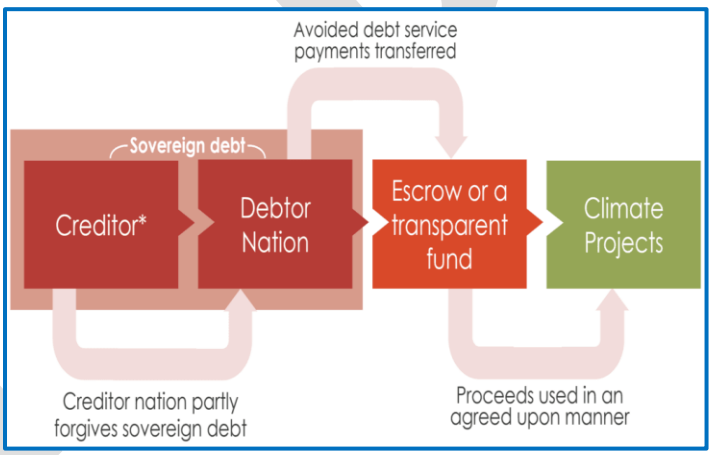
- In the past decade, debt-for-climate swaps have grown relatively popular among low- and middle-income countries.

Background

- Developing countries are facing a pair of looming crises in **climate change and debt.**
- And while these are distinct crises, they are linked: **countries more vulnerable to climate change are also facing higher debt risks.**
- Debt-for-climate swap promises to solve both crises simultaneously.

What are Debt-For-Climate Swaps?

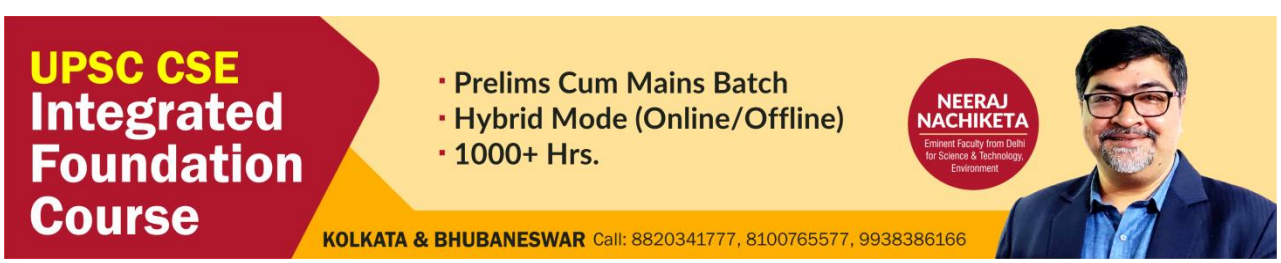
- Debt-for-climate swaps are a form of debt relief that **transforms debt into a grant committed to undertaking climate-related investments.**
- Suppose a developing country is indebted to a bilateral creditor. The creditor wants to offer debt relief and encourage the developing country to pursue climate-friendly policies or projects.
- The creditor agrees that the developing country no longer needs to service its debt. In return, the developing country agrees with the lender:
  I. To spend the money that would have been spent on debt service on climate-friendly projects or
  II. To adopt climate-friendly policies.



- The concept of Debt-For-Climate Swap was introduced as a debt restructuring device that **aims to combat climate change by ensuring that debt-ridden countries do not incur additional debt while addressing climate change locally.**

Why creditor countries should engage in debt-for-climate swaps?

- The signatories to the **Paris Agreement and the Glasgow Financial Alliance for Net Zero (GFANZ)** have a commitment to provide financial assistance to developing countries to build clean, climate-resilient futures. Debt-for-climate swaps are **one way to ful fill their commitments.**
- When a country needs a comprehensive debt restructuring, debt-for-climate swaps could provide an incentive for otherwise reluctant creditors to participate in debt relief. And they **could nudge debt-ridden countries in a climate-friendly direction.**



5. 2 ACTION PLAN TO REDUCE AIR POLLUTION IN DELHI

Context

- Recently, Chief Minister Arvind Kejriwal announced a **14-point action plan to reduce air pollution during the summer months with a focus on controlling dust pollution.**

Background

- During winter, air pollution in Delhi stems from **weather patterns, stubble burning, vehicle emissions and open burning**; whereas in summer, it is driven by **landfill fires spurred by heat and blazes in areas with dry foliage.**
- However, there is a **30% reduction in air pollution levels from 2016 to 2022** and the number of severe **AQI [Air Quality Index] days has decreased from 26 in 2016 to six in 2022**. The number of very poor and severe AQI days has come down from 124 to 72.

Delhi government's 14-point Summer Action Plan

- Delhi government's 14-point Summer Action Plan against air pollution comprises short-term, medium-term and long-term measures.
- As part of the plan, the government will deploy **84 mechanized road sweepers, 609 water sprinklers, and 185 anti-smog guns, along with patrolling teams—both during the day and at night—to keep a tab on pollution sources.**
- The action plan will involve the **sprinkling of water across the city via mechanized sweepers,** with smaller colony lanes under the Municipal Corporation of Delhi (MCD) to also be sprinkled with water one or two times every day.
- 225 teams will be constituted to patrol the city during the day and 159 such teams to patrol the streets of Delhi at night. They will be **in charge of identifying violations and sources of pollution in the Capital.**
- **Construction sites larger than 500 sqm are to be registered with the Delhi government**—an exercise started last year, with 750 sites already registered.
- The government will also be implementing a **standard operating procedure (SOP) to prevent landfill fires.**

- Greening is another key part of the plan, with the **targeting the plantation of 5.2 million saplings this year.**
- The Govt. **will be creating seven city forests, which will include facilities such as cycle tracks and canopy walks.**
- Around 3,500 parks, larger than 0.5 acres have already been identified for beautification.
- The government is **reviving dried-up lakes across the city to help recharge the groundwater table.**
- The government is creating **an e-waste Eco Park**, for which a 20-acre site has been identified in Holambi Kalan.
- The Government has **listed eco clubs in the plan, with 2,000 such clubs already existing in schools and colleges in Delhi.** Environment-friendly activities are promoted there.
- Lastly, Delhi will work with neighbouring states to curb air pollution.

5. 3 SOLID WASTE MANAGEMENT IN INDIA

Context

- Recently, a 65-year-old woman in Srinagar was attacked by street dogs outside her home. Also sitting in front of her house is a garbage collection point.
- The incident **spotlighted the link between urban solid waste management and stray dog attacks in Indian cities.**

Solid Waste Management (SWM) in India

- Solid waste management is a major problem for many urban local bodies (ULBs) in India, where **urbanization, industrialization, and economic growth** have resulted in increased municipal solid waste (MSW) generation per person. Effective SWM is a major challenge in cities with high population densities.
- Waste management in India falls under the purview of the **Union Ministry of Environment, Forests and Climate Change (MoEF & CC).** In 2016, this ministry released the **Solid Wastage Management (SWM) Rules**, which replaced by the Municipal Solid Waste (Management and Handling) Rules.

Waste Generation in India

- According to the Annual Report 2020-21 on Implementation of Solid Waste Management Rules, 2016 India generates **62 million tonnes of waste each year**.
- About 43 million tonnes (70%) are collected, of which about 12 million tonnes are treated, and 31 million tonnes are dumped in landfill sites. It is estimated that urban municipal solid waste generation will increase to **165 million tonnes in 2030.**

Solid Waste Management Rules 2016

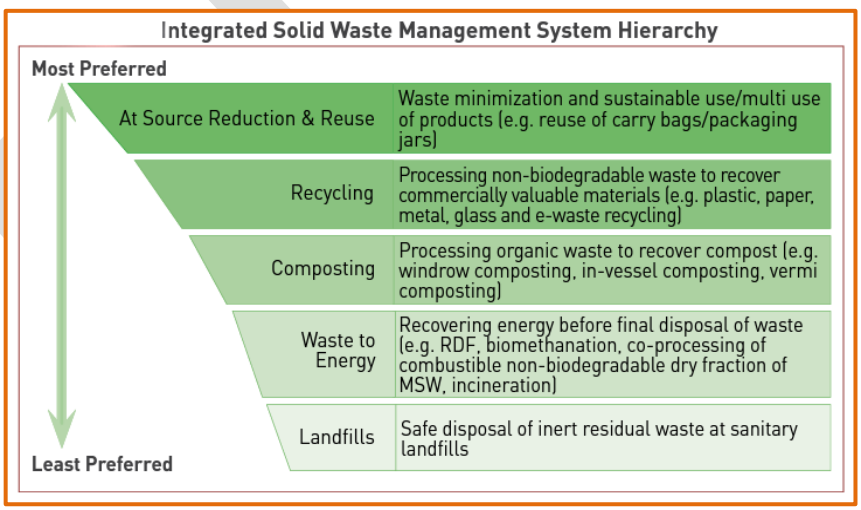
- **Waste segregation at source is mandatory**. Households are required to separate waste into three streams – Organic or Biodegradable waste, Dry waste (such as plastic, paper, metal, and wood), and Domestic Hazardous waste (diapers, napkins, mosquito repellents, cleaning agents).
- **Bulk waste generators** such as hotels and hospitals are expected to **treat organic waste either onsite or by collaborating with the urban local body**.
- Municipalities and urban local bodies have been directed to **include informal waste pickers and rag pickers into their waste management process.**
- **Manufacturers of fast-moving consumer goods** that use non-biodegradable packaging are required to put in place a system to collect the packaging waste generated due to their production.

- Urban local bodies have been given a provision to charge bulk generators a user fee to collect and process their waste. Additionally, **spot fines may be levied on people burning garbage or discarding it in public places.**
- No non-recyclable waste having a calorific value of 1,500 Kcal/kg or more is permitted in landfills. These wastes should either be **utilized for generating energy or for preparing refuse-derived fuel. It may also be used for co-processing in cement or thermal power plants.**

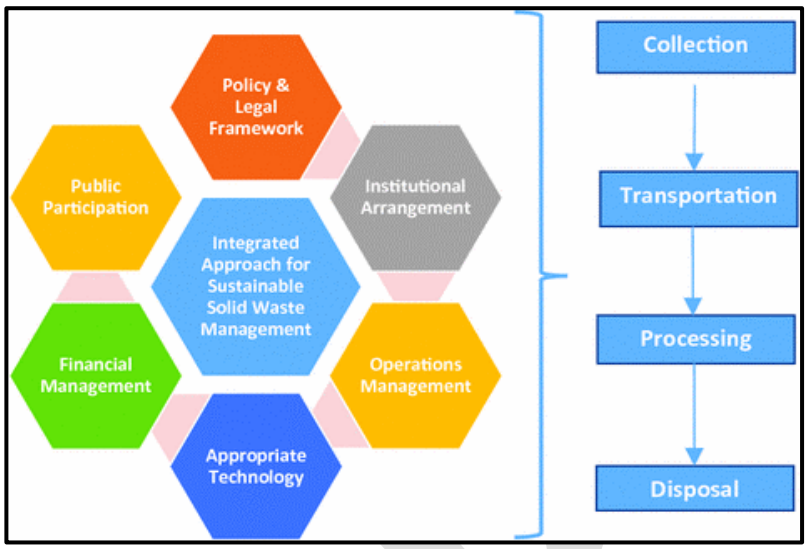
Barriers to improved waste management in India

- The current status of SWM in India is poor because the **best and most appropriate methods from waste collection to disposal are not being used.**
- There is a **lack of training in SWM** and the **availability of qualified waste management professionals is limited**.
- There is also a **lack of accountability in current SWM systems throughout India**.
- Municipal authorities are responsible for managing MSW in India but have **budgets that are insufficient to cover the costs associated with developing proper waste collection, storage, treatment and disposal.** The **lack of strategic MSW plans, waste collection/segregation,** and a government finance regulatory framework are major barriers to achieving effective SWM in India.
- **Limited environmental awareness combined with low motivation** has inhibited innovation and the adoption of new technologies that could transform waste management in India. **Public attitudes to waste** are also a major barrier to improving SWM in India.

Changes required to improve waste management in India



- **Use of wastes as resources** with **increased value extraction, recycling, recovery, and reuse.**
- **Waste management needs to be regarded throughout Indian society as an essential service** requiring sustainable financing.
- **A strong and independent authority is needed to regulate waste management** if SWM is to improve in India. Without clear regulation and enforcement, improvements will not happen. **Strong waste regulations can drive innovation**.
- The waste management sector needs to **include attractive and profitable businesses with clear performance requirements**, with **financial penalties applied when waste management services are not working effectively**.
- **Finance for waste management companies and funding for infrastructure must be raised** from waste producers through a waste tax.
- **An average charge of 1 rupee per person per day** would generate close to 50000 crores annually, and this level of funding would probably be sufficient to provide effective waste management throughout India.



- **Information on future quantities and characterization of wastes is essential** as this determines the appropriateness of different waste management and treatment options.
- **State-level procurement of equipment and vehicles is necessary for primary and secondary collection** with effective systems for monitoring collection, transport and disposal.
- Littering and waste in streets is a major problem in India that has serious impacts on public health. **Nagpur has introduced a system for sweeping roads in which every employee sweeps a fixed road length**. The **Swatchata Doot Aplya Dari** (sanitary worker at your doorstep) scheme of the Centre for Development Communication was selected as an example of good practice by **UN-HABITAT in 2007.**
- Waste management must involve **waste segregation at source to allow much more efficient value extraction and recycling**.
- **Separating dry (inorganic) and wet (biodegradable) waste** would have significant benefits and should be the responsibility of the waste producer.
- Long-term waste management planning requires visionary project development by Urban Local Bodies, the private sector and NGOs.
- The roles and responsibilities to deliver sustainable systems need to be defined, with **monitoring and evaluation to monitor progress.**
- **Experiences should be shared between different regions of India** and different social groups. There are a number of research institutes, organizations, NGOs and private sector companies working on a holistic approach to SWM, and future waste management in India must involve **extensive involvement of the informal sector throughout the system.**
- There is a need to **develop training and capacity building at every level.** All Indian schoolchildren should understand the importance of waste management, the effects of poor waste management on the environment and public health, and the role and responsibilities of each individual in the waste management system. This will **develop responsible citizens who regard waste as a resource opportunity.**
- **Compost pits should be constructed in every locality** to process organic waste.
- Community participation has a **direct bearing on efficient waste management**.
- Recovery of e-waste is abysmally low, **we need to encourage r ecycling of e-waste on a very large scale level so that problem of e-waste disposal is contained.**
- **Installation of waste-to-compost and bio-methanation plants** would reduce the load of landfill sites.
- Bio-medical waste (management and handling) rules, 1998 prescribe that there should be a **Common Biomedical Waste Treatment Facility** (CBWTF) at every 150 kms in the country. Establishment of functional CBWTF **throughout the country must be ensured.**
- Community participation has a direct bearing on efficient waste management. Recovery of e-waste is abysmally low, we need to **encourage recycling of e-waste on a very large scale level so that problem of e-waste disposal is contained.**

Conclusion

- Population growth and particularly the development of megacities is making SWM in India a major problem. The current situation is that **India relies on inadequate waste infrastructure**, the **informal sector and waste dumping**. There are major **issues associated with public participation in waste management** and there is generally a **lack of responsibility towards waste in the community.**
- There is a need to **cultivate community awareness** and **change the attitude of people towards waste**, as this **is fundamental to developing proper and sustainable waste management systems.**
- Sustainable and economically viable waste management must ensure **maximum resource extraction from waste, combined with safe disposal of residual waste through the development of engineered landfill and waste-to-energy facilities**.
- India faces challenges related to **waste policy, waste technology selection, and the availability of appropriately trained people** in the waste management sector. These fundamental requirements need to be met.

5. 4 INDIA TO JOIN CORSIA AND LTAG

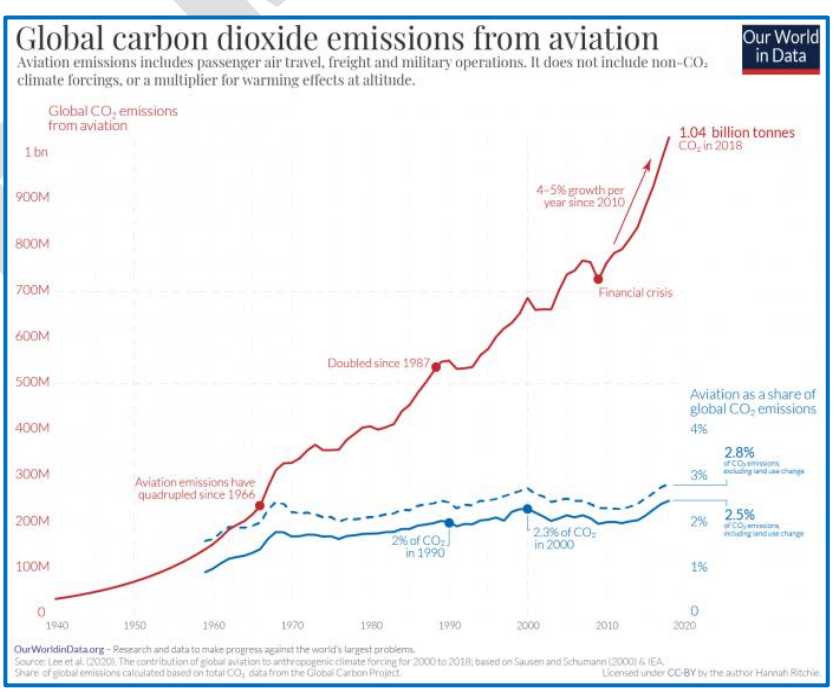
Context

- India will start participating in the **International Civil Aviation Organisation's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)** and the **Long-Term Aspirational Goals (LTAG) in 2027.**

CORSIA and LTAG

EMISSIONS

- Global aviation (including domesticand international; passenger and freight) accounts for:
- **1.9%** of greenhouse gas emissions (which includes all greenhouse gases, not only CO_2)
- **2.5%** of CO_2 emissions
- **3.5%** of 'effective radiative forcing' – a closer measure of its impact on warming.



- The ICAO has been tasked to **reduce carbon emissions from international civil aviation as one of its focus areas.**
- In order to mitigate carbon emissions from aviation and its impact on climate change, ICAO has adopted several key aspirational goals.
- Among them are a **two percent annual fuel efficiency improvement through 2050, carbon neutral growth and net zero by 2050.** The ICAO has clubbed them under CORSIA and LTAG.

Decoding Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

- The **Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is a global market-based measure** designed to offset international aviation CO2 emissions in order to stabilize the levels of such emissions. Offsetting of CO2 emissions will be achieved through the acquisition and cancelation of emissions units from the global carbon market by airplane operators.
- In June 2018, the International Civil Aviation Organization (ICAO) adopted Standards And Recommended Practices (SARPs) to implement CORSIA to the **Convention on International Civil Aviation.**
- **CORSIA does not apply to domestic aviation**. Under it, aircraft operators will begin monitoring their emissions from international flights and begin acquiring offsets for their emissions growth
- Financial implications due to offsetting have to be borne by individual airlines, depending upon their international operations.

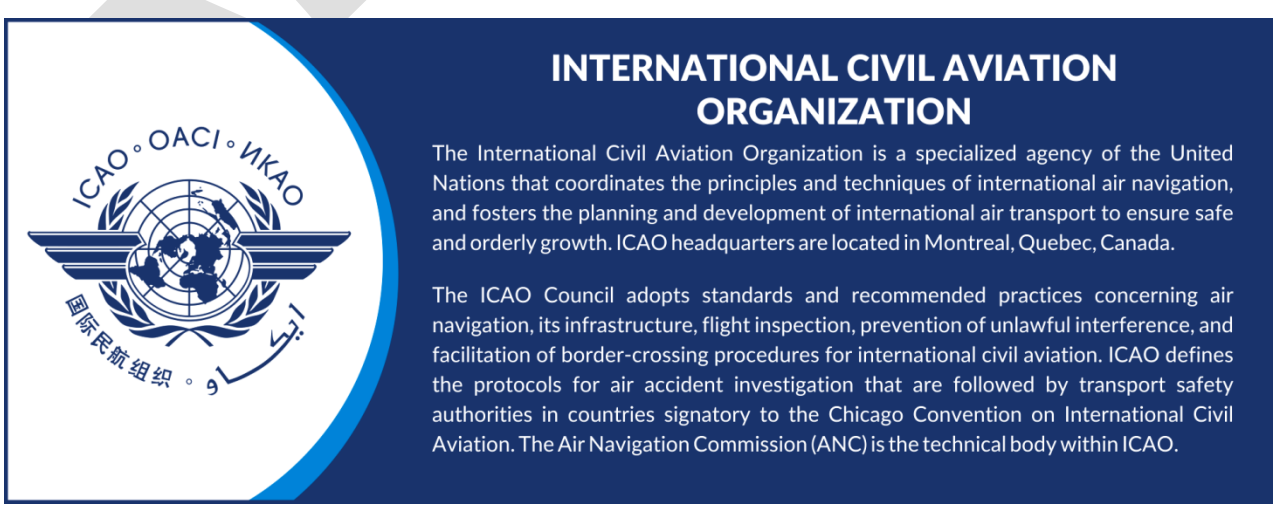
Decoding Long-Term Global Aspirational Goal (LTAG)

- The 41st ICAO Assembly **adopted a long-term global aspirational goal (LTAG) for international aviation of net-zero carbon emissions by 2050** in support of the UNFCCC Paris Agreement's temperature goal.
- This is a historic agreement that reinforces the **leadership of ICAO** on issues relating to international aviation and climate change.
- The LTAG **does not attribute specific obligations or commitments** in the form of emissions reduction goals to individual States.
- Instead, it recognizes that each State's **special circumstances and respective capabilities** (e.g., the level of development, maturity of aviation markets, sustainable growth of its international aviation, just transition, and national priorities of air transport development) will inform the ability of each State to contribute to the LTAG within its **own national timeframe**.
- Each State will contribute to achieving the goal in a **socially, economically and environmentally sustainable manner** and in accordance with its **national circumstances**.

Significance of India's joining of CORSIA AND LTAG

- India's joining of the ICAO's Climate Action Measures from 2027, **will enable airlines of developing countries like India to get time to grow more so that they do not face any adverse financial consequences due to CORSIA.**

Note: India committed to net zero by 2070 at the 26th Conference of Parties (COP26) to the United Nations Framework Convention on Climate Change.

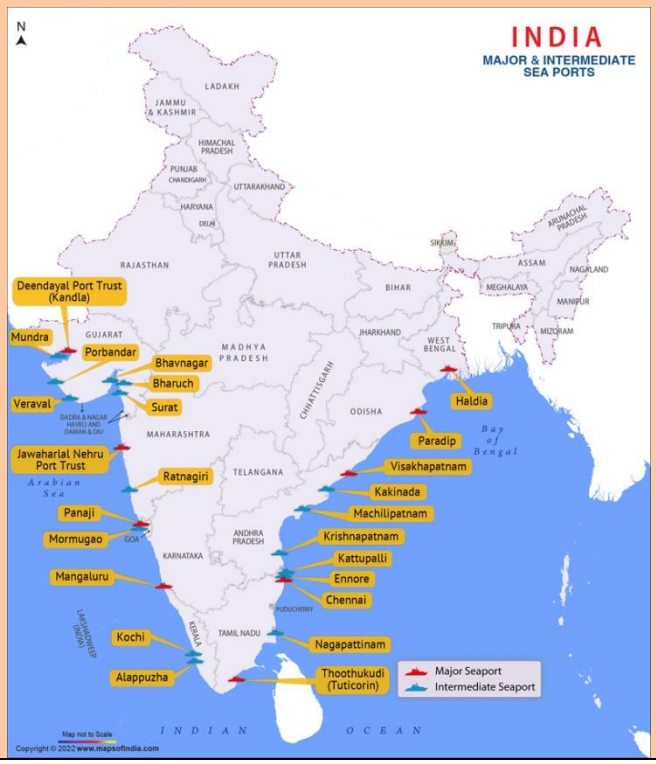


5. 5 HARIT SAGAR

Context

- Ministry of Ports, Shipping & Waterways has launched 'Harit Sagar' the Green Port Guidelines.

About	• **It is a comprehensive set of guidelines for** enhancing the environmental performance of Indian ports and promoting sustainable development of the maritime sector. • **It envisages ecosystem dynamics in port development, operation, and maintenance.**
Genesis	• It was in accordance with the **'Panchamrit' commitments enunciated by Prime Minister Modi**, at the 26th session of the Conference of the Parties (COP26) to the **United Nations Framework Convention on Climate Change (UNFCCC)** held in Glasgow, United Kingdom. • The five nectar elements (Panchamrit) of India's climate action are: 1. Reach 500GWNon-fossil energy capacity by 2030. 2. 50 per cent of its energy requirements from renewable energy by 2030. 3. Reduction of total projected carbon emissions by one billion tonnes from now to 2030. 4. Reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels. 5. Achieving the target of net zero emissions by 2070. • Ports have been undertaking green initiatives and were actively contributing to the fulfilment of the 'Panchamrit' commitments.
Ministry	• Ministry of Ports, Shipping and Waterways.
Aim	• It aims to transform Indian ports into green ports by adopting best practices and technologies for--- • Reducing carbon footprint, • Improving energy efficiency, • Conserving water resources, • Managing waste and biodiversity, and • Ensuring social responsibility.
Objectives	**The objective of guidelines was to minimize waste through –** • Reduction, reuse, repurpose and recycle in order to attain zero waste discharge from port operations and • Promote monitoring, based on environmental performance indicators (epi). • It also encompassed other aspects of national green hydrogen mission pertaining to ports, such as • Development of green hydrogen facilities, • Lng bunkering, offshore wind energy etc • Provision for adopting global Green Reporting Initiative (GRI) standard.
Emphasis	The Harit Sagar Guidelines – 2023 lays emphasis on use of • Clean / Green energy in Port operation, • Developing Port capabilities for storage, • Handling and bunkering Greener Fuels viz. Green Hydrogen, Green Ammonia, Green Methanol / Ethanol etc.
Need for Greening the Port Sector	• Port Sector is one of the most polluting and energy-intensive sectors, contributing to greenhouse gas emissions, air pollution and noise. • Greening the port sector is therefore a crucial challenge and opportunity for

	achieving sustainable development and mitigating climate change.
Methods of Greening the Port Sector	• Using renewable energy sources, such as solar panels, wind turbines and biofuels, to power port facilities and equipment. • Implementing energy efficiency measures, such as LED lighting, smart grids and energy management systems, to reduce energy consumption and costs. • Promoting modal shifts, such as rail and inland waterway transport, to reduce road congestion and emissions from trucks. • Developing green infrastructure, such as green roofs, wetlands and urban forests, to improve air quality, biodiversity and resilience. • Implementing waste management and recycling schemes, such as circular economy principles, to reduce waste generation and disposal. • Applying environmental standards and certification schemes, such as ISO 14001 and Eco Ports, to monitor and improve environmental performance.
Benefits of Greening the Port Sector	**It will play a key role in:** • Reducing greenhouse gas emissions and air pollution, which contribute to global warming and health problems. • Saving energy and resources, reduces operational costs and dependence on fossil fuels. • Enhancing competitiveness and innovation, which attract new investments and customers. • Improving social responsibility and reputation increases stakeholder engagement and trust. • Creating green jobs and skills, which support local development and employment.
Trivia	

5. 6 EXTENDED PRODUCER RESPONSIBILITY (EPR) ON WASTE OIL

Context

- Recently, the Ministry of Environment, Forest and Climate Change (MoEFCC) has **introduced a draft notification on Extended Producer Responsibility (EPR) on waste oil.**

Extended producer responsibility (EPR)

- Extended producer responsibility (EPR) is a **strategy to add all of the estimated environmental costs associated with a product throughout the product life cycle to the market price of that product, contemporarily mainly applied in the field of waste management**.
- Extended producer responsibility legislation is a driving force behind the adoption of remanufacturing initiatives because it "focuses on the end-of-use treatment of consumer products and has the primary aim to increase the amount and degree of product recovery and to minimize the environmental impact of waste materials".
- Passing responsibility to producers as polluters is not only a matter of environmental policy but also the most effective means of achieving higher environmental standards in product design.
- The concept was first **formally introduced in Sweden by Thomas Lindhq vist in a 1990.**

The recent draft notification on Extended Producer Responsibility (EPR) on waste oil

- EPR is **applicable to producers and bulk generators** (like industry, railways, transport companies, power transmission companies, etc.)/
- It **recommends the registration of stakeholders, including producers, collection agents, recyclers and waste oil importers, on Central Pollution Control Board's (CPCB) online portal.**
- The notification talks about the EPR targets of waste oil recycling for producers and the applicable obligations, starting from 2024-25.
- The **target for the base year is set as 10 percent**, which **will increase gradually by 10 per cent every year till 2029.** After this, the target will be set based on the quantity of lubrication oil sold or imported annually.
- A provision for **EPR certificate generation and the computation of the quantity** eligible for the EPR certificate is also given.
- The notification talks about an online portal **that CPCB will set up for registration, filing of returns, EPR certificate generation and tracing of oil produced or generated by any registered agency.**

Note: *CPCB is the designated agency for verifying and auditing the agencies under the EPR notification.*

Significance

- The initiative **can help the government bring waste oil collection and recycling under the aegis of the formal sector.**
- It **can also prevent informal backyard recyclers from flourishing,** which may also pollute the environment by mishandling the waste oil and disposing of the same unscientifically.

5. 7 CARBON BORDER ADJUSTMENT MECHANISM

Context

- The EU Parliament passed the **Carbon Border Adjustment Mechanism Bill.**
- The law **will authorise the EU to charge Carbon Border Tax (CBT) on imports of steel, aluminium, fertilizer, electricity, cement, and hydrogen from January 2026.**

What is a carbon border tax?

- A carbon border tax is a **tax imposed on imported goods to equalize the cost of carbon emissions between domestic and foreign producers.**

Aim of Carbon Border Tax

- The tax **aims to address the issue of carbon leakage, where companies move their emissions-intensive operations to countries with less stringent regulations, resulting in a net increase in emissions.**
- As a cost on carbon, it discourages emissions. It **has an impact on exports and production as a trade-related measure.**

EU's Carbon Border Adjustment Mechanism

- CBAM EU's **plan to reduce greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels**, in line with the European Climate Law.
- The EU's primary mechanism **for incentivizing industry to decarbonize is through carbon pricing and to meet its 2050 targets; these prices will need to rise substantially.**

Reason for implementing CBAM

Carbon Leakage

- For the European Union (EU), climate policies in other countries remain "less stringent," and there is a possibility of "carbon leakage."
- This refers to the possibility that EU-based businesses could shift emission-intensive production to jurisdictions with lax standards, or that EU products could be replaced by imports that are less expensive but use more carbon.
- As a result, the **CBAM acts as a "price equalizer."** Further, the EU sees it as an alternative to free allowances in its Emissions Trading System (ETS), which addresses leakage but does not encourage environmentally friendly production within the EU.

5. 8 PETERSBERG CLIMATE DIALOGUE

Context

- **Petersberg Climate Dialogue was hosted in Berlin, Germany** from May 2-3, 2023.

About	• **The international conference Petersberg Climate Dialogue is a series of negotiations to prepare the yearly UN Climate Change Conferences in spring or summer time between the COP conferences.**
Launch	• The Petersberg Climate Dialogue **was launched in 2010** by former German Chancellor Angela Merkel.
Host	• It was hosted by **Germany and the United Arab Emirates**, which is hosting the 28th Conference of Parties (COP28) to the United Nations Framework Convention on Climate Change.
Key Takeaways from 2023 Dialogue	**Call for an Acceleration Agenda** • In this, all countries hit fast-forward on their Net Zero deadlines. • The Agenda calls for coal phaseout by 2030 in Organisation for Economic Co-operation and Development countries, and by 2040 in all others, as well as achieving Net Zero electricity generation and decarbonising major sectors. **Global renewables target** • In order to limit **global warming to 1.5°C,** the world needs to make sharp cuts in their greenhouse gas emissions. • There is a need for a potential global target for renewables at the next climate conference. **Fossil fuels: Phaseout production or reduce emissions?** • There is a need to be ***laser-focused on phasing out fossil fuel emissions***, while phasing up viable, affordable zero-carbon alternatives. • Members called for a tripling of renewable energy capacity by 2030 followed by a

doubling in 2040.

On track for $100 billion climate finance

- Members said that developed countries are "on good track" to deliver the $100 billion per year they had promised to mobilise by 2020 during the COP15 in 2009.
- The $100 billion is likely to be a gross underestimation of the true need for climate finance in developing countries.
- A recent estimate pegs climate finance needs at $1 trillion per year by 2030 for emerging markets alone.
- This means that climate finance needs are more than 10 times the amount that developed countries have been able to mobilise, 14 years after committing to the $100 billion figure.

Global Stock take

- 2023 is the year for the Global Stock take, which is essentially a **periodic review of global climate action** which aims to assess whether current efforts will enable us to reach the objectives set out in the Paris Agreement.
- This is the **first Global Stock take year since the Paris Agreement** was signed in 2015 and the report has been underway for the past two years. It is set to be released in September of 2023.

India at the dialogue:

- The Global Stock take **outcome should focus on how climate change impacts, actions and responses have a bearing on the developmental priorities of developing countries** including eradication of poverty, Union Minister for the Indian Ministry of Environment, Forest and Climate Change said.
- He also added that the outcome of the **first Global Stock take should seek to convey a message on sustainable lifestyles as well as sustainable consumption** to inform the next round of Nationally Determined Contributions and enhanced international cooperation.

5. 9 CONVENTION ON MIGRATORY SPECIES (UNEP/CMS)

Context

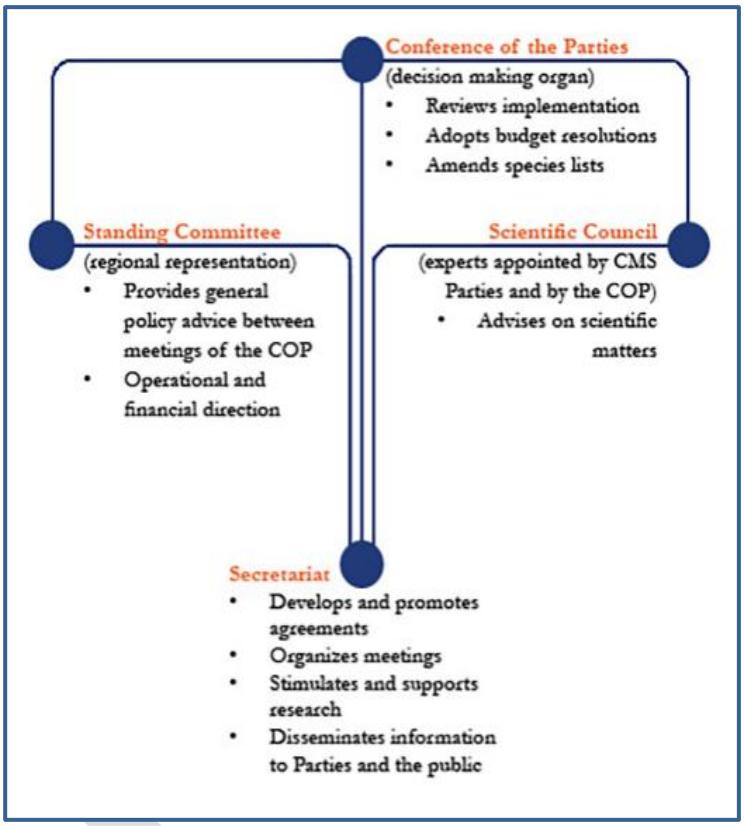
- The **Ministry of Environment, Forest and Climate Change** in collaboration with the **United Nations Environment Programme/ Convention on Migratory Species (UNEP/CMS)** had organized a meeting of Range Countries to strengthen conservation efforts for migratory birds and their habitats in the Central Asian Flyway (CAF).

Migratory species are species that move from one habitat to another during different times of the year, as they cannot live in the same environment all year round due to seasonal limitations in factors such as food, sunlight, and temperature.

Convention on Migratory Species (CMS)

- About: The Convention on the Conservation of Migratory Species of Wild Animals, also known as the **Convention on Migratory Species (CMS) or the Bonn Convention**, is an international agreement that aims to conserve migratory species throughout their ranges.
- Mandate: The agreement was signed **under the auspices of the United Nations Environment Programme** and is concerned with conservation of wildlife and habitats on a global scale.
- Signing: **Signed in 1979 in Bonn, West Germany**, the convention **entered into force in 1983**.

- What makes CMS unique? The CMS is the only global, and United Nations-based, intergovernmental organization established exclusively for the conservation and management of terrestrial, aquatic and avian migratory species.
- CMS Appendices: **Two appendices under CMS:**
  1. Appendix I lists 'Threatened Migratory Species'.
  2. Appendix II lists 'Migratory Species requiring international cooperation'.
- Main Objective: The Convention aims at establishing, on an international level, coordinated conservation measures for migratory animals, of which there exist an estimated 8,000 to 10,000 species on earth.



5. 10 SLUDGE MANAGEMENT

Context

- A first of its kind analysis of the sludge found in Indian sewage treatment plants (STP), set up to treat polluted water from the Ganga, found that most of it had "high potential" for use as fertilizer, but required treatment before it could be used unrestricted in farms, or as a potential biofuel.

Details

- An emerging initiative of the **National Mission for Clean Ganga,** to **establish treatment facilities and prevent pollution of the river,** is to derive livelihood opportunities from the river rejuvenation programme. One of the measures, under this 'Arth Ganga' (economic value from Ganga), is to **"monetise" and reuse treated wastewater and sludge.**
- This means **converting sludge — a thick residue filtered out of STP that while rich in organic chemicals is also a repository of heavy metals, industrial effluents and bacterial contaminants — into usable products such as manure and bricks**. The contaminants in sludge means that they need to be treated and dried before they can be safely disposed.

Sludge Classification

- **Treated sludge can be classified as class A or class B** — as per the standards of the United States Environment Protection Agency — with class A being safe to be disposed of in the open and useful as organic fertilizer. Class B means that the sludge can be used in "restricted" agricultural applications, the edible parts of the crop not be exposed to the sludge-mixed soil, and animals and people not come into extensive contact.

Areas of concern

- **India doesn't yet have standards** classifying sludge as class A or B.
- Currently, those awarded contracts for developing and maintaining STPs under the Namami Ganga Mission are also

apportioned land for disposing off sludge. However, this is **rarely treated,** and during rains, such sludge — with its accompanying chemical and metallic constituents — often makes its way back into rivers and local water sources.

Recent study

- Before standards were made, it was necessary to understand the characteristics of the sludge from these STPs before ways could be devised to incentivise private players to treat and dispose sludge. This is the first time such a project has been conceived in India.

Findings of the recent study

- A study by the Indian Institute of Technology (IIT)-Roorkee found that most of the sludge analysed **after drying fell into the class B category.**
- Nitrogen and phosphorous levels — the basic soil nutrients — were higher than those recommended by India's fertilizer standards (FCO, 2009). However, potassium levels of some sludges were less than recommended.
- The **total organic carbon was more than 16%,** again higher than FCO recommendations, but the degree of pathogens as well as heavy metal contamination was above the recommended fertilizer standards.
- The calorific value of sludge ranged from 1,000-3,500 kcal/kg. This is lower than the average calorific value of Indian coal.

Closing Remarks

- To improve the quality of sludge, the report recommends the **sludge needs to be stored for at least three months to kill pathogens, and blended with cattle manure and husk or local soil to reduce the heavy metal.** This, however, would still put it in class B, and converting it into grade A sludge would require far more extensive treatment.

5. 11 THAWING PERMAFROST IN ARCTIC REGION

Context

- With rising global temperatures, thawing permafrost is likely to destabilize thousands of industrial sites and linked contaminated areas in the Arctic according to a new study published in the journal Nature Communications.

Permafrost

- Permafrost is **any ground that remains completely frozen—32°F (0°C) or colder—for at least two years straight**.
- These permanently frozen grounds are most common in regions with high mountains and in Earth's higher latitudes—near the **North and South Poles.**
- These permanently frozen grounds are often found in **Arctic regions such as Greenland, Alaska (the United States), Canada, Russia, and Eastern Europe.**

Composition

- Permafrost is composed of **a combination of soil, rocks, and sand that are held together by ice**.
- The soil and ice in permafrost **stay frozen all year long.**
- However, although the ground remains perennially frozen, **permafrost regions aren't always covered with snow**.

Thawing of permafrost

- As Earth's climate warms, the permafrost is thawing. That means the ice inside the permafrost melts, leaving behind water and soil.
- While global warming is upping temperatures around the world, the **Arctic is warming twice as fast as anywhere else—and faster than it has in the past 3 million years.**
- Scientists estimate **there is now 10 percent less frozen ground in the northern hemisphere than there was in the early 1900s.**

Impacts of Permafrost Thawing

The loss of greenhouse gas stores

- When plants and animals die, the microbes that decompose their bodies release carbon dioxide, methane, and other global warming gases into the air.
- A deep freeze effectively hits the pause button on that process and preserves organisms and the gases they would otherwise emit underground.
- When frozen soil thaws, the microbial decomposition of those organic materials—and the release of greenhouse gases—starts anew.

Crumbling infrastructure

- About 35 million people live in a permafrost zone, in towns and cities built on top of what was once considered permanently frozen ground.
- But as that solid ground softens, the infrastructure these communities rely on grows increasingly unstable.
- In the northwest of Canada, now we have a short section of the road where it has been necessary to chill the ground to make the foundation of the road colder than it is, in order to preserve the permafrost.

Altered landscapes

- Thawing permafrost alters natural ecosystems in many ways.
- It can create **thermokarsts,** often characterized by "drunken forests".
- It can make soil—once frozen solid—more vulnerable to landslides and erosion, particularly along coasts.
- It can alter the flow of rivers and streams, degrade water quality and impact aquatic wildlife.
- Wetlands also deteriorate along with permafrost, as the water sinks further underground without a frozen buffer to keep it in place.
- This can create drier terrain more susceptible to wildfires, which expose even more permafrost to warming.
- The loss of permafrost will contribute to sea level rise.

Risk of diseases

- Just as permafrost locks in carbon and other greenhouse gases, it can also trap—and preserve—ancient microbes. Some bacteria and viruses lie dormant for thousands of years in permafrost's cold, dark confines before waking up when the ground warms.
- A 2016 anthrax outbreak in Siberia, linked to a decades-old reindeer carcass infected with the bacteria and exposed by thawed permafrost, demonstrated the potential threat.

What is happening in the Arctic region?

- Permafrost regions aren't always covered with snow. It was because of these characteristics that countries and corporations began building infrastructure on the Arctic's permafrost.
- The region witnessed a further expansion of industrial and economic development during the Cold War — it became a center for resource extraction and military activities. This led to the **accumulation of industrial and toxic waste on or in permafrost which was never removed.**
- Industrial waste types (in the region) include drilling and mining wastes, toxic substances like drilling muds and fluids, mine waste heaps, heavy metals, spilled fuels, and radioactive waste.
- Now, **as the Arctic is getting warmer nearly four times as fast as the rest of the planet**

due to climate change, permafrost is thawing rapidly.

Ramifications

- This could destabilize **not only the industrial sites but also the contaminated areas**.
- Once the destabilization takes place, **toxic substances would be unleashed across the region**, threatening numerous species living there and the health of people who depend on them.

Steps to stop permafrost from Thawing

- Reducing carbon footprint.
- Investing in energy-efficient products.
- To follow a 1.5°C-consistent pathway, the world will need to decrease fossil fuel production by roughly 6 per cent per year between 2020 and 2030.
- Global CO2 emissions need to be reduced by 45% over the next decade, and they fall to zero after 2050.
- By supporting climate-friendly businesses, legislation, and policies, we can help preserve the world's permafrost and avert a vicious cycle of an ever-warming planet.

5. 12 DECARBONISING STEEL SECTOR

Context

- An 'accelerated steel industry decarbonisation' offers a clear opportunity for India to build it right at the outset.

Background

- As the economy grows, India's crude steel production is expected to increase to about 435 million tonnes (mt) by 2050, from about 118 mt in 2021.
- **India's steel industry accounts for about 11 per cent of the country's emissions currently**, and to meet demand, coking coal-based steel-making capacity additions of 50-70 mt have been announced. These have a life-cycle of 30-50 years, and will also result in continued rise in emissions.

Need of the hour: 'Accelerated steel industry decarbonization'

The actions that could be considered for an orderly transition are:

Introducing CO2 pricing and enabling rapid development of hydrogen:

- Hydrogen-based low carbon steel-making technology is in early stages of commercial development. Introduction and calibration of CO2 pricing in the next few years will encourage investments in low carbon technologies and accelerate adoption of hydrogen-based steel-making.
- It will also accelerate investment in other green technologies in the steel value chain such as green hydrogen and renewable - based electricity.

Policies for material efficiency:

- Scrap-based steel-making has the lowest carbon emissions of all current commercial steel-making technologies, but is dependent on price and availability of quality scrap to be economic and to achieve scale. India relies on scrap imports, which will become a challenge in the future as quality scrap demand increases globally for steel-making.
- To scale up domestic scrap-based steel-making, policies incentivising scrap collection and recycling would need to be implemented, to set up dismantling, collection and processing centres.

Encourage green steel consumption in end-use:

- The government could encourage the use of green steel, set up targets for embodied carbon in public and private construction, and in automotive uses.
- This will support creation of a domestic green steel market for domestic steel-makers, who can initially tap export markets where green steel commands a premium.

Incremental levers to decarbonise existing assets:

- For existing assets, steel-makers can implement energy-efficiency and process improvement measures to achieve up to 25-

30 per cent abatement, depending on plant configuration.
- These measures could include higher usage of scrap in the BF-BOF process, sourcing of green power, use of biomass and setting up of process control systems.

Investing in carbon capture, utilisation and storage (CCUS):

- CCUS is currently an expensive but an important lever for reducing emissions. To make it a viable decarbonisation solution for the steel industry, more R&D efforts are required to reduce capture costs, besides creating hubs in steel-producing centers like in Odisha and Jharkhand.

Closing remarks

- Implementing these actions won't be easy as it **will result in increased cost of production, which will flow downstream into higher prices of housing and automobiles.**
- The industry will have to do incremental spending on green power and hydrogen, which will entail an additional capex of about $135 billion — about 40 per cent more than the capex allocated for the steel value chain across technologies.
- On the other hand, **cumulative emissions would be lower by five billion tonnes by 2050 in the 'accelerated decarbonisation scenario' relative to the 'line-of-sight scenario';** the latter scenario is based on announced policies and expected technology adoption.
- In addition, in the accelerated transition, forex savings of approximately $500 billion would accrue by 2050 from reduced spending on coking coal alone.
- A greener steel industry can also enable **India to be a global green steel manufacturing hub.**

India is currently the world's 2nd largest producer of crude steel. In the past 10–12 years, India's steel sector has expanded significantly. Production has increased by 75% since 2008, while domestic steel demand has increased by almost 80%. The capacity for producing steel has grown concurrently, and the rise has been largely organic. In FY22, the production of crude steel and finished steel sto od at 133.596 MT and 120.01 MT, respectively. In FY23 (until January 2023), the exports of finished steel stood at 5.33 MT, while the imports stood at 5 MT. The annual production of steel is anticipated to exceed 300 million tonnes by 2030–2031.

Government Initiatives to Support Steel Sector

Ease of Doing Business

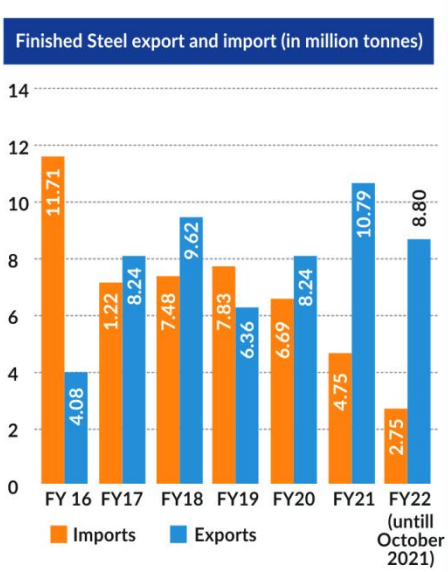
As a facilitator, the Government provides fiscal and other policy measures for the growth of steel sector. Currently, GST rate on steel products is18%. Government has imposed Export duty @ 15% on select steel products.
The government has also imposed an export duty of 50% on all grades of Iron ore and 45% on Iron ore pellets.

Production Linked Incentive (PLI) Scheme:

Government has approved inclusion of 'Specialty Steel' under the Production Linked Incentive (PLI) Scheme to promote the manufacturing of ' Specialty Steel' within the country by attracting capital investment, generate employment and promote technology up-gradation in the steel sector.

Steel Import Monitoring System (SIMS):

To facilitate domestic steel industry by disseminating the data related to steel imports, Steel Import Monitoring System (SIMS) had been put in place which requires the importer to submit advance information regarding intended imports to ensure granular data like end-use, grade & other technical specifications etc. of steel items being imported.



5. 13 LAND RECLAMATION

Context

- With coastal areas around the world threatened by rising sea levels and increasingly destructive storms, a question arises if we should still be creating new land in our oceans or not.

Land Reclamation

- Land reclamation means creating land either by removing water from muddy areas or raising the level of the land.
- With an increasing demand for land, it can be a good solution for creating areas for building, agriculture and other uses.

Prevalence of Land Reclamation

- Despite the considerable cost and engineering challenges, coastal land reclamation has become **"a global-scale phenomenon**" over the last two decades.
- The study, which examined satellite imagery of coastal cities with a population of at least 1 million, found that reclamation projects in 106 cities around the world had altogether created around 2,530 square kilometers (more than 900 square miles) of coastal land, an area roughly the size of Luxembourg.
- Nearly 90% of that land was created in East Asia, most often to make way for industry and port facilities catering to the globalized economy.
- Land reclamation will continue to be a solution for many countries around the world to address its more pressing needs for increased development and urbanization, balancing economy and ecology.

Effects of Land Reclamation

Ecosystems and Biodiversity

- One potential impact of land reclamation is the **disruption of ecosystems and loss of biodiversity**. When new plants and animals are introduced to an area, it **can alter the balance of the existing ecosystem**, which can lead to changes in predator-prey relationships and resource competition. Additionally, the removal of certain species or habitats during the reclamation process can reduce the overall diversity of the area.
- Additionally, land reclamation projects may involve the introduction of invasive species or the release of previously contained pollutants.

Community and Social Impact

- Land reclamation projects typically begin with land acquisition, which **can displace people who live on the land or depend on it being reclaimed**. This disruption **can trigger long negotiations with land owners, and may lead to social and economic conflict.**
- Community involvement and communication can help mitigate these issues. While impacted parties may still protest the acquisition and reclamation of land, a proactive information campaign can bring more people on board.

Coastal area

- Land Reclamation also **leads to marine pollution**, London Convention 1970 pertains to the promotion of the effective control of all sources of marine pollution. **Dredging and filling in fills in the ocean/sea leads to marine pollution leading to the killing of the ecosystem of the particular area**.
- Land Reclamation has the potential of creating a buttery effect concerning floods and sinking of islands. The difference in international boundaries post reclamation, done by one coastal state, is a **direct encroachment upon the right of the international community on international waters**.
- It is even **more iniquitous to landlocked states who have no oceans of their own**, which those commonly shared are being appropriated.
- Each inch of non-naturally gained land is **inversely related and proportional to floods and tsunami at some other island,** as it is indispensably shifting the breath of the ocean towards the other side.

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Way Forward

- Foremostly, the Wetland Rules made keeping the Ramsar Convention in view, need its due implementation. The **notified wetlands of international importance require to be adopted by the states and centre and reclamation should be prohibited.**
- Secondly, any activities related to the scaling of the epidermis of the Earth to make for an infill must be followed by filling of the dug-up land to ensure that the plain of the Earth is restored. The Supreme Court took cognizance of this issue in **TN Godavarman Thirumulpad v. Union of India and Ors** commenting on repeated illegal mining and non-following of post dredging restoration of the ground leading to the Aravalli Hills being cut piece by piece and causing 31 hills to vanish. Hence, Reclamation of mined land meaning returning the mined-out land with useful life is pertinent. It implies **restoring the land to its original form and productivity so that it is useful and in conformity with the prior use of the land.**
- Since reclamation can have severe effects on the environment, **Environment Impact assessments for such activities must be made mandatory**. This ought to be accompanied by a **strict floor index for the new proposed land for activities sanctioned to be performed.**

5. 14 GLOBAL GREENHOUSE GAS WATCH

Context

- The World Meteorological Congress has approved a new greenhouse gas (GHG) monitoring initiative called the Global Greenhouse Gas Watch -the World Meteorological Organization (WMO) said.

Details

- The Global Greenhouse Gas Watch initiative supports urgent action **to reduce heat-trapping gases, which are fuelling temperature increases .**The new global GHG watch will fill critical information gaps and provide an integrated and operational framework.
- The framework will bring all space-based and surface-based observing systems, as well as modeling and data assimilation capabilities, under one roof.

Components of GHG Watch

The GHG watch will consist of four main components:

1. A comprehensive, sustained, global set of surface-based and satellite-based observations of carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O) concentrations, total column amounts, partial column amounts, vertical profiles and fluxes and supporting meteorological, oceanic, and terrestrial variables, internationally exchanged as rapidly as possible, pending capabilities and agreements with the system operators;
2. Prior estimates of the GHG emissions based on activity data and process-based models;
3. A set of global high-resolution Earth System models representing GHG cycles;
4. Associated with the models, data assimilation systems that optimally combine the observations with model calculations to generate products of higher accuracy.

Significance of GHG Watch

- Greenhouse gas concentrations are at record levels — in fact. **higher than at any time over the last 800,000 years.**
- The **increase in carbon dioxide levels from 2020 to 2021** was higher than the average growth rate over the past decade and methane saw the biggest year-on-year jump since measurements started.
- GHG monitoring infrastructure **will help improve understanding of the carbon cycle. Understanding the full carbon cycle is vitally important for the planning of mitigation activities.**
- Globally consistent, gridded information on GHG and their fluxes with appropriate time resolution will help in the improved

evaluation of sources and sinks of greenhouse gases and indicate their association with the biosphere, the ocean, and the permafrost areas.

- The monitoring infrastructure will build on and expand WMO's long-standing activities in GHG monitoring, implemented as part of the global atmosphere watch and via its integrated global GHG information system.

5. 15 ECO-SENSITIVE ZONES (ESZS)

Context

- To protect and preserve the rich biodiversity of Tal Chhapar Wildlife Sanctuary in Rajasthan, the Union Ministry of Environment, Forest and Climate Change (MoEF) has issued a draft notification proposing to designate it as an Eco-Sensitive Zone.

Eco-Sensitive Zones (ESZs)

About	• **Eco-Sensitive Zones or Ecologically Fragile Areas are areas within 10 kms around Protected Areas, National Parks and Wildlife Sanctuaries.**
Reason behind creation	• ESZs are created as **"shock absorbers" for the protected areas,** to minimize the negative impact on the **"fragile ecosystems"** by certain human activities taking place nearby. • Furthermore, these areas are meant to act as **transition zone from areas requiring higher protection to those requiring lesser protection.**
Notification	• ESZs are notified by MoEFCC, Government of India **under Environment Protection Act 1986.**
Extension	• In case of places with sensitive corridors, connectivity and ecologically important patches, crucial for landscape linkage, even area beyond 10 km width can also be included in the eco-sensitive zone.
Aim of ESZ	• The basic aim is to regulate certain activities around National Parks and Wildlife Sanctuaries so as to minimize the negative impacts of such activities on the fragile ecosystem encompassing the protected areas.
Prohibited activities	• Commercial mining, saw mills, industries causing pollution (air, water, soil, noise etc), establishment of major hydroelectric projects (HEP), commercial use of wood, Tourism activities like hot-air balloons over the National Park, discharge of effluents or any solid waste or production of hazardous substances.
Regulated activities	• Felling of trees, establishment of hotels and resorts, commercial use of natural water, erection of electrical cables, drastic change of agriculture system, e.g. adoption of heavy technology, pesticides etc, widening of roads.
Permitted activities	• Ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, use of renewable energy sources, adoption of green technology for all activities.

Tal Chhapar Sanctuary

- **Location:** It is a sanctuary **located in the Churu district of North western Rajasthan**, in the Shekhawati region of India. The sanctuary is 210 km from Jaipur **on the fringe of the Great Indian Desert** and situated on road from Ratangarh to Sujangarh.
- **Establishment:** Tal Chhapar, was established as a "Reserved area" in 1962. The official designation as a Reserved Forest in 1966 further solidified its role in protecting the region's remarkable wildlife.
- **Flagship animal:** Tal Chhapar is a refuge of the blackbuck.

- **Trees:** Tal Chhaper Sanctuary, has open grassland with scattered **Acacia and Prosopis trees** which give it an appearance of a typical savanna.
- **Forest:** The forest of this region falls under major group **"Tropical Forest" as per classifications of Indian forests by Champion & Seth**. The forest of sanctuary area again falls under the group "Topical Thorn Forest" and sub group 6B/C "Desert Thorn Forests".
- **Birds:** It lies on the passageway of many migratory birds such as harriers. Birds commonly seen in the sanctuary are **harriers, eastern imperial eagle, tawny eagle, short-toed eagle, sparrow, and little green bee-eaters, black ibis and demoiselle cranes.** Skylarks, crested larks, ring doves, and brown doves are seen throughout the year.
- **Fauna: Desert fox and Wildcat** can also be spotted along with typical avifauna such as partridge and sand grouse.
- **Rare and endangered flora and fauna:** The vibrant motha grass, the elusive red phalarope, the elegant Chinese pond heron, the desert monitor lizard, the spiny-tailed lizard, and the endemic Spotted Creeper.
- **Mothai Grassland:** The sanctuary's Mothai Grassland provides essential sustenance for its inhabitants. The shape of the seed of this grass is like very fine round shaped pearls. Mothiya has **a very sweet taste**. People enjoy eating it. Mothiya is also food for blackbucks and birds which dig it from the earth with their starks.

5. 16 THE ECONOMICS OF CLIMATE CHANGE IN INDIA

Context

- In its latest report of currency and finance, the RBI (India's central bank) has a chapter dedicated to answering many of these questions and explaining the macroeconomic effects of climate change in India.

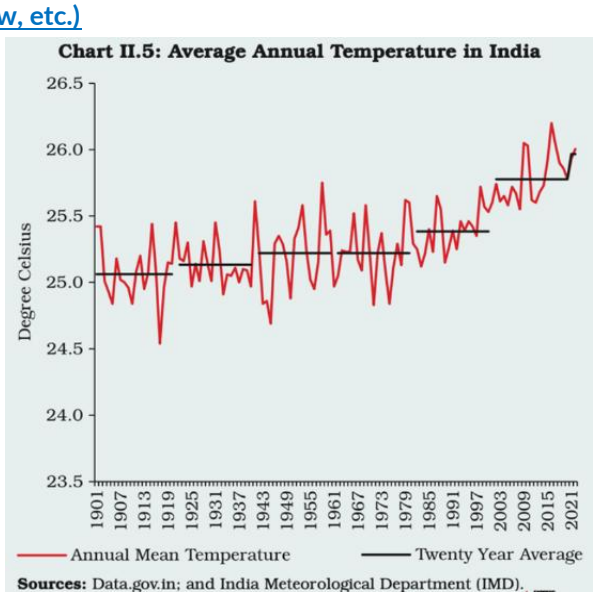
Background

- Over the past few months extreme weather events (such as unexpected rainfall or unusually high temperatures) have disrupted normal life in India.
- The Global Climate Risk Index 2021 had ranked India seventh in the list of most affected countries in terms of exposure and vulnerability to climate risk events.

Evidence of Climate Change based on RBI's Report

Anomalies in temperature and precipitation (rain, hail, snow, etc.)

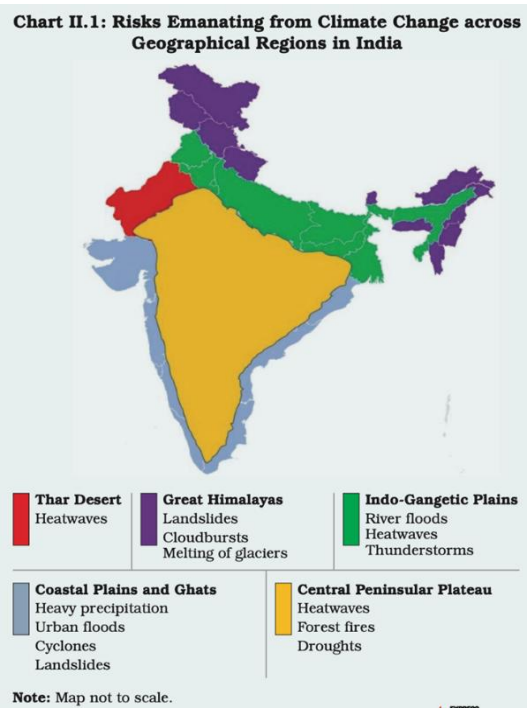
- While annual average temperature in India has been increasing gradually, the rise has been significantly sharper during the last vicennial (twenty years) than during any other 20-year time interval since 1901 finds the RBI paper.
- The average annual rainfall at the all-India level during the last vicennial (2000-2020) saw a rise over that during 1960-1999, over a longer time horizon since 1901, annual average rainfall in India has gradually declined...Moreover, evidence suggests that while dry spells have become more frequent during the last several years, intense wet spells have also increased.
- Natural disasters since 1975 has shown **that India is relatively more exposed to floods and storms (i.e., cyclones and hailstorms) than droughts and heatwaves.** Such incidences pose significant risks to



agricultural production and food price volatility.

How vulnerable is India to climate change?

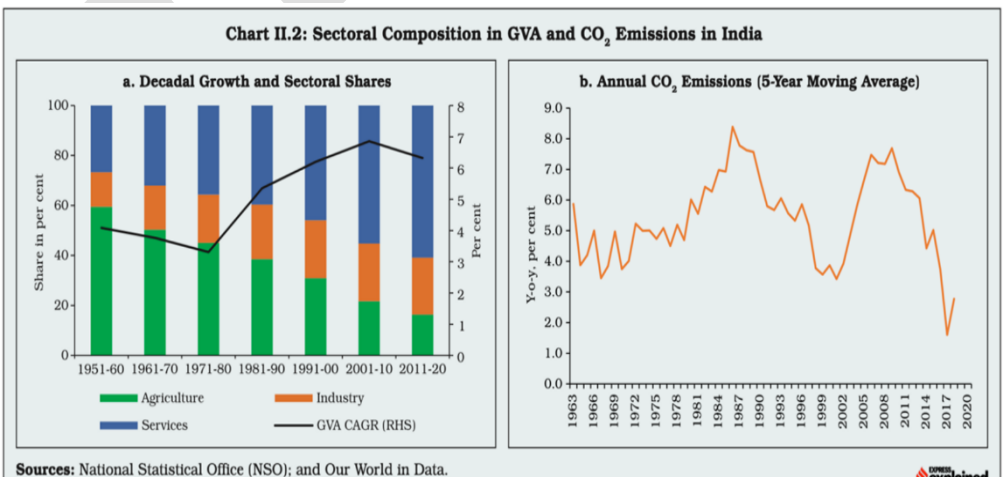
India's geographical attributes



India's diverse topography is not only exposed to different temperature and precipitation patterns but also makes it vulnerable to extreme weather events posing wide-ranging spatial and temporal implications for the economy.

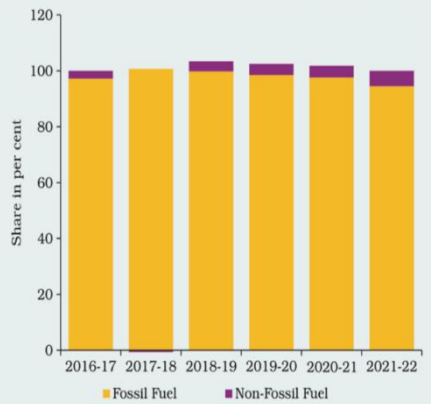
Economic Structure

- India's economic structure has undergone a considerable change since Independence.
- As such, bulk of the economic activity now happens in the services sector as against the agriculture and allied sectors.



- This has significant implications for carbon emissions because services are **"globally considered to be emission-light with relatively lower energy intensity of output".**
- **Metal industries, electricity and transports are the highest emission-intensive sectors**, together accounting for around 9 per cent of India's total GVA (gross value added) in 2018-19.
- Thus, the sectoral composition of the Indian economy helps reduce its carbon emissions. However, notwithstanding this, fossil fuels have an overwhelmingly large share in India's primary energy consumption and this fact needs to change.

Chart II.3: Share of Fossil Fuel and Non-Fossil Fuel based Energy Sources in India's Primary Energy Consumption



Note: Data may not add up to 100 due to rounding off.
Source: Energy Statistics 2023, Ministry of Statistics and Programme Implementation (MoSPI).

Table II.1: Sector-wise Share in GVA and CO_2 Emission Intensity (2018-19) in India[7]

Sector	Share in GVA	CO_2 Emission Intensity (Metric Tons of CO_2 Emissions per US$ 1 Million of Output)
Agriculture, forestry and fishing	14.8	-
Agriculture, hunting, forestry	13.8	84.7
Fishing and aquaculture	1.0	4.1
Mining	2.6	-
Mining and quarrying, energy producing products	-	382.1
Mining and quarrying, non-energy producing products	-	185.2
Manufacturing	18.3	-
Food products, beverages and tobacco	2.0	11.9
Textiles, apparel and leather products	2.4	37.8
Metal products	2.6	2796.6
Machinery and equipment	4.6	67.0
Electricity, gas, water supply and other utility services	2.3	-
Electricity, gas, steam and air conditioning supply	-	7263.8
Water supply; sewerage, waste management and remediation activities	-	110.4
Construction	8.1	26.1
Wholesale and retail trade; repair of motor vehicles	12.3	67.8
Accommodation and food services	1.1	22.0
Transport	3.9	-
Air transport	0.07	1210.4
Land transport	4.0	378.8
Water transport	0.1	1587.7
Financial, real estate, ownership of dwelling and professional services	22.5	-
Financial services	6.0	27.4
Real estate and ownership of dwellings	6.5	48.6
Professional services	8.9	127.9
Public administration and defence	5.7	16.1
Other services	7.1	-
Education	3.7	23.2
Arts, entertainment and recreation	0.3	31.8
Human health and social work activities	1.5	17.5
Other service activities	1.6	77.4

Macroeconomic Impact of climate change on India

- Climate change can adversely impact both the supply side (read the productive potential) as well as the demand side. It can stroke inflation, reduce economic output, trigger uncertainty and change consumer behaviour.
- Over the years, there have been several predictions and assessments made about the impact of climate change on India's economy. Some are listed below:
  - According to Niti Aayog in 2019, around 600 million of India's population are facing severe water stress, with 8 million children below 14 years in urban India at risk due to poor water supply.
  - The World Bank in 2020 said that **India could account for 34 million of the projected 80 million global job losses from heat stress-associated productivity decline by 2030.**
  - The IPCC Working Group in 2022 stated that **India is one of the most vulnerable countries globally in terms of the population that would be affected by the sea level rise.** By the middle of the present century, around 35 million people in India could face annual coastal flooding, with 45-50 million at risk by the end of the century.

Physical Risks

- These include chronic issues (such as a gradual and sustained change in temperature and precipitation) as well as acute events such as extreme weather occurrences).

Transition Risks

- Transition risks; simply put, these refer to economy-wide changes arising from the transition towards a low-carbon economy.
- This is best encapsulated by **a paradox called "success is failure".** This phrase was used by Mark Carney, Governor of the Bank of England, in 2016. Carney meant that **if the shift towards becoming a low-carbon economy is too rapid, it could materially damage a country's financial stability.**

Policy Solutions

- The **Network of Central Banks and Supervisors for Greening the Financial System (NGFS)** have created an analytical framework called the **National Institute Global Econometric Model (NIGEM) "to produce policy insights".**
- In this model, the researchers looked at how GDP growth rate and inflation would be affected under six different policy stances when compared to the baseline (which is the best-case scenario involving no impact of climate change).

Below 2 degree Celsius	This scenario assumes that optimal carbon prices as per the long-term path are set immediately after 2020 and keeps the 67th percentile of warming below 2 degree Celsius throughout the 21st century.
Current Policies	Existing climate policies remain in place without any change in policy ambitions.
Delayed Transition	This scenario assumes that the next 10 years see a "fossil recovery" and thus, follow the trajectory of the current policy scenario until 2030. This is related to Below 2 degree Celsius scenario but follows a very skewed path due to late start.
Divergent Net Zero	This scenario assumes that optimal carbon prices, in line with the long-term targets, are implemented immediately after 2020 after a limited temporary overshoot before reaching net zero. This is related to net zero 2050 but follows a divergent path - mitigation efforts are unevenly distributed across sectors, with stronger mitigation action taking place in the Transport and Buildings sectors-reflecting lack of coordination.
Nationally Determined Contributions (NDCs)	This scenario foresees that currently pledged unconditional NDCs are implemented fully and respective targets on energy and emissions in 2025 and 2030 are reached in all countries. This scenario also factors in the net zero 2070 goal of India as per its NDC.
Net Zero 2050	This scenario foresees global CO_2 emissions to be at net zero in 2050. It limits the temperature rise to 1.5 degree Celsius. Furthermore, countries with a clear commitment to a specific net-zero policy target at the end of 2020 are assumed to meet this target.

Impact of different policy stances on India's Inflation and GDP

GDP

- Policy actions have a negative impact on India's GDP no matter what. However, global scenarios of "current policies" and "nationally determined contributions (or NDCs)" have the highest negative impact on output, whereas rapidly moving towards **Net Zero by 2050 will contain the hit to GDP.**

Inflation

- Moving towards net zero by 2050 will spike inflation far more in the immediate future than continuing on current policies.

Overall, these trade-offs will become sharper as India tries to achieve the twin goals of achieving net zero emissions by 2070 and becoming an advanced economy (which implies higher emissions) by 2047.

5. 17 PEOPLE'S BIODIVERSITY REGISTER

Context

- The **National Campaign for Updation and Verification of People's Biodiversity Register (PBR)** was launched in Goa.

About People's Biodiversity Register

- The People's Biodiversity Register serves as a comprehensive record of **various aspects of biodiversity**, including the –
  - Conservation of habitats,
  - Preservation of landraces,
  - Folk varieties and cultivars,
  - Domesticated stocks and breeds of animals, micro-organisms, and
  - The accumulation of knowledge related to the area's biological diversity.
- As per the Biological Diversity Act 2002, Biodiversity Management Committees (BMC) are created for ***"promoting conservation, sustainable use and documentation of biological diversity"*** by local bodies across the country.
- BMCs have been constituted by the local bodies in the States and Union Territories and are entrusted with the preparation of the People's Biodiversity Registers (PBRs), in consultation with local communities.

5. 18 SHORT TOPICS

Ground-Level Ozone (O3)

Context

- Ground-level ozone (O3) has started to emerge as Delhi's lead pollutant, according to data from the Central Pollution Control Board (CPCB).

Details

- Ground-level ozone (O3), is a **trace gas in the troposphere (the lowest level of the Earth's atmosphere).**
- It is **not emitted directly into the air**, but is **created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC).** This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight.
- Ground-level ozone is **an irritant and can negatively affect human health and welfare.** Its impacts **make ground-level ozone "bad ozone.**

Pygmy Hog

Context

- African Swine Fever (ASF) could deal a lethal blow to the pygmy hog- Report.

Details

- **About:** The pygmy hog is the smallest and rarest wild suid in the world.
- **Distribution:** Northern West Bengal and northwestern Assam in India. Himalayan foothills from north-western Uttar Pradesh and southern Nepal to Assam, as far as southern Bhutan. Once declared extinct in 1971 it was coincidentally 'rediscovered' in

two separate locations in north-western Assam; namely **Barnadi Reserve Forest in Darrang District and Manas National Park.**

- **Habitat:** Pygmy Hogs prefer undisturbed patches of grassland
- **Diet:** Pygmy Hogs feed on roots, tubers, shoots and ground vegetation, along with worms and other invertebrates.
- **Status and conservation:** The IUCN has listed Pygmy Hogs as **Critically Endangered.**
- It is also listed in **the Schedule I of the Indian Wildlife (Protection) Act, 1972.**

Rare Black Tiger

Context

- The death of a rare black tiger reported after three decades in the Similipal Tiger Reserve in Odisha's Mayurbhanj district.

About

- A black tiger is a rare color variant of the tiger, and is not a distinct species or geographic subspecies. So-called black tigers are due to pseudo-melanism.
- ***Note:*** *Pseudomelanism, also called abundism, is another variant of pigmentation, identifiable by dark spots or enlarged stripes, which cover a large part of the body of the animal, making it appear melanistic.*
- In Simlipal National Park, 37% of the tiger population has this condition, which has been linked to isolation and inbreeding.

Tiger

- Tiger is **listed as Endangered on the IUCN Red List.**
- The tiger is the **national animal of India, Bangladesh, Malaysia and South Korea.**
- Protected under **schedule I of Wildlife Protection Act.**
- As of 2019, **India's Tiger population stands at a total of 2967 which is 70% of the global tiger population.**
- India successfully **fulfilled its target of doubling tiger numbers, made at St. Petersburg in 2010, much before the target year of 2022.**

Must Read:

Similipal Tiger Reserve

- Similipal, which **derives its name from 'Simul' (Silk Cotton) tree, is a national park and a Tiger Reserve situated in the northern part of Orissa's Mayurbhanj district.** The tiger reserve **has some beautiful waterfalls like Joranda and Barehipani.**
- The park is **surrounded by high plateaus and hills, the highest peak being the twin peaks of Khairiburu and Meghashini.**
- At least twelve rivers cut across the plain area, all of which drain into the Bay of Beng al.
- The prominent among them are **Burhabalanga, Palpala Bandan, Salandi, Kahairi and Deo. Sal is the dominant tree species here.**
- The GOI declared it as a **Biosphere Reserve In 1994.** UNESCO added this **National Park to its list of Biosphere Reserves in 2009.**
- This **Tiger Reserve also comes under Mayurbhanj Elephant Reserve** which includes the adjacent Hadgarh and Kuldiha Wildlife Sanctuaries.

Milkweed Butterflies

Context

- Studies on migration patterns of milkweed butterflies and their feeding habits can help protect them, said researchers.
- **About:** Milkweed butterfly, are a group of butterflies in **the brush-footed butterfly family, Nymphalidae (order Lepidoptera).**
- **Distribution:** The majority of species are found in both Old and New World tropics.
- **Well known members**: some well-known members such as the **monarch butterfly and the queen butterfly** live in temperate regions.
- **Features**:
  - The large, **colourful adults have long, usually brownish or orange wings** marked by black-and-white patterns.
  - The first pair of legs is small and not used for walking.
  - They **fly slowly** and deliberately, and some, such as the monarch butterfly, **migrate great distances.**
  - The larvae are often brightly banded or striped, with two to four pairs of fleshy projections protruding from the body.
  - They feed **chiefly on milkweed** and sometimes on nightshade.
  - These plants contain acrid, milky juices that probably make the larva and its subsequent stages distasteful to predators. This, combined with a conspicuous coloration, protects them. Many other butterflies benefit from this protection through mimicry.

National Tiger Conservation Authority (NTCA)

Context

- The **National Tiger Conservation Authority (NTCA)**is taking steps to initiate action against illegal resorts and homestays near Tiger Reserves.

About NTCA

- The National Tiger Conservation Authority (NTCA) is **a statutory body under the Ministry of Environment, Forests and Climate Change**.

Establishment

- It is **constituted under enabling provisions of the Wildlife (Protection) Act, 1972,** as amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to it under the said Act.

Objectives

The objectives of NTCA are:

- Providing statutory authority to Project Tiger so that compliance of its directives become legal.
- Fostering accountability of Center-State in management of Tiger Reserves, by providing a basis for MoU with States within our federal structure.
- Providing for an oversight by Parliament.
- Addressing livelihood interests of local people in areas surrounding Tiger Reserves.

Mandate

- NTCA has been at the forefront of tiger conservation work in India.
- It's work domain extends from on the ground protection initiatives to science based monitoring of tigers and their habitat using latest technological tools, independent assessment of tiger reserves with MEE framework, **financial and technical support to tiger reserves, creating inviolate space for wildlife while ensuring community development to international co-operation are the few thrust areas of NTCA.**

Green Energy Open Access Rules 2022

Context

- Union Power & NRE Minister Shri R. K. Singh chaired a meeting with Industry and other stakeholders in New Delhi on Green Energy Open Access Rules 2022.

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Salient Features of Green Energy Open Access Rules

a) These rules are notified for promoting generation, purchase and consumption of green energy including the energy from Waste-to-Energy plants.

b) The Green Open Access is allowed to any consumer and the limit of Open Access transactions has been **reduced from 1 MW to 100 kW for green energy,** to enable small consumers also to purchase renewable power through open access.

c) Consumers are **entitled to demand supply of Green Power from Discoms**. Discoms would be obligated to procure and supply green power to eligible consumers.

d) These Rules have streamlined the overall approval process for granting open access. **Time-bound processing by bringing uniformity and transparency** in the application as well as approval of open access through a national portal has been mandated. Approval for Green Open Access is to be **granted in 15 days or else it will be deemed to have been granted.**

e) Commercial and Industrial consumers are **allowed to purchase green power on a voluntary basis.**

f) Provide certainty on open access charges to be levied on Green Energy Open Access Consumers which includes transmission charges, wheeling charges, cross subsidy surcharge, standby charges wherever applicable, banking charge, and other fees and charges such as Load Despatch Centre fees and scheduling charges, deviation settlement charges as per the relevant regulations of the Commission.

g) **Cap on increasing of cross-subsidy surcharge** as well as the removal of additional surcharge, incentivize the consumers to go green.

h) There shall be **a uniform Renewable Purchase Obligation (RPO),** on all obligated entities in area of a distribution licensees. Green Hydrogen/Green Ammonia has also been included for fulfilment of its RPO.

i) Consumers will be given **Green Certificates if they consume green power and will also be facilitated.**

Greenwashing

Context

- The RBI invited interested Indian companies to participate in Greenwashing TechSprint.
- The TechSprint aims to develop a tool or solution that can help regulators and the market to effectively tackle the risks of greenwashing in financial services.

What is Greenwashing?

- Greenwashing is the **act of making false or misleading statements about the environmental benefits of a product or practice.**
- It can be a way for companies to continue or expand their polluting as well as related harmful behaviors, all while gaming the system or profiting off well-intentioned, sustainably minded consumers. The term was actually coined back in 1986 in an essay by environmentalist and then student Jay Westerveld.

Example of how greenwashing

- **Nature-based imagery—**such as trees, leaves, or animals—on product packaging and in advertisements can imply sustainability, even if the company or product either actively harms the environment or takes no real steps to protect it. Recently, BlueTriton faced litigation over its attempts to market its bottled water as sustainable, despite its "significant and ongoing contributions to plastic pollution and its depletion of natural water resources,"

Sea Butterflies

Context

- Sea butterflies, a suborder of sea snails, are tiny creatures that play a big role in the marine ecosystem.

About

- Sea butterflies, are **a taxonomic suborder of small pelagic swimming sea snails.**

- They are holoplanktonic opisthobranch gastropod mollusks.
- The sea butterflies include some of the world's most abundant gastropod species, and because of their large numbers **are an essential part of the food chain, and a significant contributor to the oceanic carbon cycle.**
- Sea butterflies float and swim freely in the water, and are carried along with the currents. This has led to a number of adaptations in their bodies. The shell and the gill have disappeared in several families.

- Sea butterflies **float and swim freely in the water, and are carried along with the currents.** This has led to a number of adaptations in their bodies. The **shell and the gill have disappeared in several families.**

5. 19 SNIPPETS

5. 20 1 MAINS QUESTION AND 5 MCQS

Q1. Solid waste management is a major problem for many urban local bodies (ULBs) in India. What are the barriers to improved waste management in India? Shed light on the changes that are required to improve waste management in India.

- Solid waste management is a major problem for many urban local bodies (ULBs) in India, where **urbanization, industrialization, and economic growth** have resulted in increased municipal solid waste (MSW) generation per person. Effective SWM is a major challenge in cities **with high population densities.**
- According to the Annual Report 2020-21 on Implementation of Solid Waste Management Rules, 2016 India generates **62 million tonnes of waste each year**.
- About 43 million tonnes (70%) are collected, of which about 12 million tonnes are treated, and 31 million tonnes are dumped in landfill sites. It is estimated that urban municipal solid waste generation will increase to **165 million tonnes in 2030.**

Barriers to improved waste management in India

- The current status of SWM in India is poor because the **best and most appropriate methods from waste collection to disposal are not being used.**
- There is a **lack of training in SWM** and the **availability of qualified waste management professionals is limited**.
- There is also a **lack of accountability in current SWM systems throughout India**.

- Municipal authorities are responsible for managing MSW in India but have **budgets that are insufficient to cover the costs associated with developing proper waste collection, storage, treatment and disposal.** The **lack of strategic MSW plans, waste collection/segregation,** and a government finance regulatory framework are major barriers to achieving effective SWM in India.
- **Limited environmental awareness combined with low motivation** has inhibited innovation and the adoption of new technologies that could transform waste management in India. **Public attitudes to waste** are also a major barrier to improving SWM in India.

Changes required to improve waste management in India

- **Use of wastes as resources** with **increased value extraction, recycling, recovery, and reuse.**
- **A strong and independent authority is needed to regulate waste management** if SWM is to improve in India. Without clear regulation and enforcement, improvements will not happen. **Strong waste regulations can drive innovation**.
- The waste management sector needs to **include attractive and profitable businesses with clear performance requirements**.
- **Finance for waste management companies and funding for infrastructure must be raised** from waste producers through a waste tax.
- **Information on future quantities and characterization of wastes is essential** as this determines the appropriateness of different waste management and treatment options.
- **State-level procurement of equipment and vehicles is necessary for primary and secondary collection** with effective systems for monitoring collection, transport and disposal.
- Littering and waste in streets is a major problem in India that has serious impacts on public health.
- **Case Study**: **Nagpur has introduced a system for sweeping roads in which every employee sweeps a fixed road length**. The **Swatchata Doot Aplya Dari** (sanitary worker at your doorstep) scheme of the Centre for Development Communication was selected as an example of good practice by **UN-HABITAT in 2007.**
- Waste management must involve **waste segregation at source to allow much more efficient value extraction and recycling**.
- There is a need to **develop training and capacity building at every level.**
- **Compost pits should be constructed in every locality** to process organic waste.
- Community participation has a **direct bearing on efficient waste management**.
- **Installation of waste-to-compost and bio-methanation plants** would reduce the load of landfill sites.
- Bio-medical waste (management and handling) rules, 1998 prescribe that there should be a **Common Biomedical Waste Treatment Facility** (CBWTF) at every 150 kms in the country. The establishment of functional CBWTF **throughout the country must be ensured.**
- Community participation has a direct bearing on efficient waste management. Recovery of e-waste is abysmally low, we need to **encourage recycling of e-waste on a very large scale level so that problem of e-waste disposal is contained.**

To summarize, proper solid waste management is an integral part of environmental conservation that should be observed by both individuals and companies globally.

Q2. Consider the following statements:

1. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is a global market-based measure designed to offset international aviation CO2 emissions in order to stabilize the levels of such emissions.
2. CORSIA does not apply to domestic aviation.

How many of the above statements are correct?

a. Only one
b. Only two
c. Both 1 and 2
d. None of the above.

Answer: c

Both statements 1 and 2 are correct.

Q3. Consider the following statements:

1. The Convention on the Conservation of Migratory Species of Wild Animals, is the only global, and United Nations-based, intergovernmental organization established exclusively for the conservation and management of terrestrial, aquatic and avian migratory species.
2. Appendix I of the Convention on the Conservation of Migratory Species of Wild Animals lists 'Migratory Species requiring international cooperation'.

How many of the above statements are correct?

a. Only one
b. Only two
c. Both 1 and 2
d. None of the above.

Answer: a

Statement 1 is correct.

Statement 2 is incorrect: Appendix I of the Convention on the Conservation of Migratory Species of Wild Animals lists 'Threatened Migratory Species'.

Q4. Consider the following statements:

1. Greenwashing is the act of making false or misleading statements about the environmental benefits of a product or practice.
2. Sea butterflies, are small pelagic swimming sea snails that float and swim freely in the water.
3. Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least five years straight.
4. Tal Chhapar Wildlife Sanctuary is a refuge of blackbuck.

Which of the above statements are correct?

a) 1 and 4 only
b) 1 only
c) 1, 2 and 4 only
d) 1, 3 and 4 only

Answer: c

Statement 3 is incorrect: Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least five years straight.

Statement 1,2 and 4 are correct.

Q5. Consider the following statements:

1. The concept of Debt-For-Climate Swap was introduced as a debt restructuring device that aims to combat climate change by ensuring that debt-ridden countries do not incur additional debt while addressing climate change locally.
2. A carbon border tax is a tax imposed on imported goods to equalize the cost of carbon emissions between domestic and foreign producers.

How many of the above statements are correct?

a. Only one
b. Only two
c. Both 1 and 2
d. None of the above.

Answer: c. Both 1 and 2

Both statements 1 and 2 are correct.

Q6. Consider the following statements:

1. A black tiger is a rare colour variant of the tiger, and it is a distinct species or geographic subspecies.
2. In Simlipal National Park, 37% of the tiger population comprises Black Tigers, which has been linked to isolation and inbreeding.

How many of the above statements are correct?

a. Only one
b. Only two
c. Both 1 and 2
d. None of the above.

Answer: Only one.

*Statement 1 is incorrect: A black tiger is a rare color variant of the tiger, and is **not a distinct species** or geographic subspecies. So-called black tigers are due to pseudo-melanism.*

Statement 2 is correct.

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6. SOCIAL ISSUES

6. 1 POLYGAMY IN INDIA

Context

- Assam Chief Minister has said that the state government will move to ban the practice of polygamy through "legislative action".

Practice of polygamy

- Polygamy is the practice of **having more than one married spouse — wife or husband.**
- Traditionally, polygamy — mainly the situation of a man having more than one wife — was practiced widely in India.

Prevalence of Polygamy in India

National Family Health Survey-5 (2019-20)

- The National Family Health Survey-5 (2019-20) showed the prevalence of polygamy **was 2.1% among Christians, 1.9% among Muslims, 1.3% among Hindus, and 1.6% among other religious groups**.
- The data showed that the **highest prevalence of polygynous marriages was in the North eastern states with tribal populations**.

Laws Pertaining to Polygamy in India

- The issue is governed both by personal laws and the Indian Penal Code (IPC).

IPC Section 494

- IPC Section 494 ("Marrying again during lifetime of husband or wife") penalises bigamy or polygamy.

  The section reads:

  "Whoever, having a husband or wife living, marries in any case in which such marriage is void by reason of its taking place during the life of such husband or wife, shall be punished with imprisonment of either description for a term which may extend to seven years, and shall also be liable to fine."

Hindu Marriage Act, 1955

- The **Hindu Marriage Act, 1955 outlawed the practice.** Buddhists, Jains, and Sikhs are also included **under the Hindu Marriage Code.**

Parsi Marriage and Divorce Act, 1936

- The **Parsi Marriage and Divorce Act, of 1936,** had already outlawed bigamy.

The fate of a child born out of polygamy

- Despite bigamy being an offence, the **child born from the bigamous marriage would acquire the same rights as a child from the first marriage under the law.**

Exemptions: Non-application of Penal provisions

- Penal provisions of Polygamy **do not apply to a marriage that has been declared void by a court** — for example, a child marriage that has been declared void.
- The law also **does not apply if a spouse has been "continually absent" for the "space of seven years"**. This means a spouse who has deserted the marriage or when his or her whereabouts are not known for seven years, will not bind the other spouse from remarrying.
- The penal provision **will not apply to adulterous relationships that do not qualify as valid marriages under the law.**

Standard of Proof

Kanwal Ram and Ors v The Himachal Pradesh Administration (1965)

- In **Kanwal Ram and Ors v The Himachal Pradesh Administration (1965),** the Supreme Court reiterated the legal position that the standard of proof must be of marriage performed as per customs. *"In a bigamy case, the second marriage as a fact, that is to say, the ceremonies constituting it must be proved…*

Section 495 of the Indian Penal Code, 1860.

- **Section 495 of the IPC** protects the rights of the second wife in case of a bigamous marriage.
- It reads: *"Whoever commits the offence defined in the last preceding section (i.e. Section 494)*

having concealed from the person with whom the subsequent marriage is contracted, the fact of the former marriage, shall be punished with imprisonment of either description for a term which may extend to ten years, and shall also be liable to fine."

Provisions under Personal Law

Codes of Usages and Customs of Gentile Hindus of Goa

- A Hindu man in the state has the right to bigamy under specific circumstances mentioned in the **Codes of Usages and Customs of Gentile Hindus of Goa.**
- These circumstances include a case where the wife fails to conceive by the age of 25 or if she fails to deliver a male child by the age of 30.

Muslim law

- Marriage in Islam is **governed by the Shariat Act, 1937**. Personal law allows a Muslim man to have four wives.
- To benefit from the Muslim personal law, many men from other religions would convert to Islam to have a second wife.

Therefore, in India, polygamy is prohibited and punished except for Muslim men who can have four wives at a time.

Judicial Decisions Regarding Polygamy

Courts have clearly acknowledged the existence of the practice of polygamy in the Indian society and consider it a social-ill that needs to be reformed.

State of Bombay v. Narasu Appa Mali (1951)

- In this case, the Bombay High Court ruled that the **Bombay (Prevention of Hindu Bigamy Marriage) Act, 1946 was not discriminative**.
- The Supreme Court ruled that a state legislature has the authority to enact measures for public welfare and reforms, even if it violates the Hindu religion or custom.

Javed & Others v. State of Haryana & Others (2003)

- The Honourable Supreme Court decided that **under Article 25 freedom is subjected to social harmony, dignity, and wellness.**
- For the sake of good order and discipline, decency, or security, such conduct of having several wives can be controlled or forbidden by laws.

Sarla Mudgal v Union of India

- In a landmark ruling in 1995, the **Supreme Court in Sarla Mudgal v Union of India** held that religious conversion for the sole purpose of committing bigamy is unconstitutional.

Lily Thomas v Union of India

- The above-mentioned position was subsequently **reiterated in the 2000 judgment in Lily Thomas v Union of India.**
- Any move to outlaw polygamy for Muslims would have to be a special legislation that overrides personal law protections like in the case of triple talaq.

Parayankandiyal v. K. Devi & Others (1996)

- The Honourable Supreme Court concluded in this case that **monogamous relationships were the standard and ideology of Hindu society,** which scorned and condemned a second marriage.

Constitutional standpoint

- Several regulations are being debated for their validity by other religions, namely, Islam and Hinduism, and in particular, the legislation dealing with 'polygamy.' They debate the Constitution's vital rights, which are **enumerated in Articles 13, 14, and 15.**

Article 13

- Article 13 of the Indian Constitution expressly specifies that **legislation that conflicts with Part III of the Constitution is unconstitutional**.

Article 14

- Article 14 states that **the state shall not refuse any individual under India's territory equal treatment under the law and equal protection under the law**.

Article 15(1)

- The state is prohibited from discriminating against any person solely based on faith, ethnicity, gender, religion, or birthplace, according to Article 15(1) of the Indian Constitution.

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Social Impact of polygamy on Indian Society

Extreme environmental conditions for the youngsters

- There are constant linguistic arguments among the spouses, resulting in extreme environmental conditions for the youngsters and an ethical standard of practice that is inappropriate for raising a family.

Marital aggression

- Marital aggression is one of the most closely associated with polygamous families owing to the vocal conflicts that arise as a result of their unethical arrangement.

Property Disputes

- When the male partner dies, polygamy causes property disputes.

Antagonism among the wives

- Unity is usually a gripping component in any family, however, there is no cohesion in a polygamous household due to antagonism among the wives fighting for love and validation from their husbands.

Criminal Behaviours

- Polygamy is linked to criminal behaviours such as sexual assault, hence it has a negative impact on the population.

Impact on offspring

- This troubling issue causes trauma in youngsters, which has an impact on their education and interpersonal attitudes towards life, as well as their contribution to global society.

International verdict

- In 2000, the **United Nations Human Rights Committee** reported that **polygamy violates the International Covenant on Civil and Political Rights (ICCPR),** citing concerns that the lack of equality of treatment concerning the right to marry meant that polygamy, restricted to polygyny in practice, violates the dignity of women and should be outlawed.
- The United Nations also recommended that it be made illegal in all the states.

Conclusion

- In all religious denominations, present personal laws are mostly founded on the topmost patriarchal views of society. Therefore, **a Uniform Civil Code** is typically requested by disgruntled women as an alternative to established personal laws.
- The code will make the complicated regulations of civil marriages, inherited wealth, testamentary, and adoptions easier to understand and apply to everyone. All individuals, regardless of their religion, will be subject to the same civil law.
- Instead of differentiating regulations based on religious beliefs, **a secular republic requires a common law that applies to all citizens**. It will address prejudice against disadvantaged individuals and unify the country's diverse culture.

6. 2 PREVENTION OF SEXUAL HARASSMENT (POSH) ACT, 2013

Context

- A Report by a Government Committee headed by boxer M C Mary Kom found that more than half of India's 30 national sports federations do not have an Internal Complaints Committee (ICC).
- ICC is a legal requirement under the **Prevention of Sexual Harassment (PoSH) Act, 2013.**

PoSH Act

- The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, was **passed in 2013.**
- It **defined sexual harassment, lay down the procedures for complaint and inquiry, and the action to be taken in cases of sexual harassment**.

Genesis of PoSH Act

- The PoSH law broadened and gave legislative backing to what is known as the **Vishaka Guidelines**, which were **laid down by the Supreme Court in a judgment passed in 1997.**

- The case in question was filed by women's rights groups, including one called **Vishaka,** over the alleged gangrape of a social worker from Rajasthan named Bhanwari Devi.

Vishakha Guidelines

- The Vishaka Guidelines defined sexual harassment and imposed three key obligations on institutions — prohibition, prevention, redress.
- The Supreme Court directed that **they should establish a Complaints Committee**, **which would look into matters of sexual harassment of women at the workplace**. The court **made the guidelines legally binding.**

Further Mandate on Complaints Committee

- The PoSH Act subsequently mandated that **every employer must constitute an Internal Complaints Committee (ICC)** at each office or branch that had 10 or more employees.
- It **defined various aspects of sexual harassment and lay down procedures for action in case of a complaint.**
- The aggrieved victim under the Act can be a woman **"of any age whether employed [at the workplace] or not",** who "alleges to have been subjected to any act of sexual harassment".
- In effect, **the Act protects the rights of all women who are working or visiting any workplace, in any capacity.**

What constitutes sexual harassment under the PoSH Act?

- Under the 2013 law, sexual harassment includes "any one or more" of the following "unwelcome acts or behavior" committed directly or by implication:
  - Physical contact and advances
  - A demand or request for sexual favours
  - Sexually coloured remarks
  - Showing pornography
  - Any other unwelcome physical, verbal or non-verbal conduct of sexual nature.
- A 'Handbook on Sexual Harassment of Women at Workplace' published by **the Ministry of Women & Child Development contains more detailed instances of behaviour that constitutes sexual harassment at the workplace.** These circumstances include, broadly:
  - Sexually suggestive remarks or innuendo; serious or repeated offensive remarks; inappropriate questions or remarks about a person's sex life;
  - Display of sexist or offensive pictures, posters, MMS, SMS, WhatsApp, or emails;
  - Intimidation, threats, blackmail around sexual favours;
  - Threats, intimidation or retaliation against an employee who speaks up about these;
  - Unwelcome social invitations with sexual overtones, commonly seen as flirting; and
  - Unwelcome sexual advances.
- The Handbook says "unwelcome behaviour" is experienced when the victim feels bad or powerless, and when it causes anger/ sadness or negative self-esteem. Unwelcome behaviour is **"illegal, demeaning, invading, one-sided and power-based".**
- In addition, the PoSH Act mentions five circumstances that amount to sexual harassment:
  - Implied or explicit promise of preferential treatment in her employment;
  - Implied or explicit threat of detrimental treatment;
  - Implied or explicit threat about the complainant's present or future employment status;
  - Interference with the complainant's work or creating an offensive or hostile work environment;
  - Humiliating treatment of the complainant that is likely to affect her health or safety.

What is the procedure for a complaint under the Act?

- It is **not compulsory for the aggrieved victim to file a complaint for the ICC to take action.**
- The Act says that **she "may" do so — and if she cannot, any member of the ICC "shall" render "all reasonable assistance" to her to complain in writing.**
- If the woman cannot complain because of "physical or mental incapacity or death or otherwise", her legal heir may do so.

- Under the Act, the **complaint must be made "within three months from the date of the incident**". However, the ICC can "extend the time limit" if "it is satisfied that the circumstances were such which prevented the woman from filing a complaint within the said period".
- The ICC "may", before inquiry, and "at the request of the aggrieved woman, take steps to settle the matter between her and the respondent through conciliation" — provided that "no monetary settlement shall be made as a basis of conciliation".
- The ICC may either forward the victim's complaint to the police, or it can start an inquiry that **has to be completed within 90 days**.
- The **ICC has powers similar to those of a civil court** in respect of summoning and examining any person on oath, and requiring the discovery and production of documents.
- When the inquiry is completed, **the ICC must provide a report of its findings to the employer within 10 days.**
- The identity of the woman, respondent, witness, any information on the inquiry **should not be made public.**

What happens after the ICC has filed its report?

- If the allegations of sexual harassment are proved, the ICC will recommend to the employer to take action **"in accordance with the provisions of the service rules"** of the company. These may vary from company to company.
- The ICC may also recommend that the company deduct the salary of the person found guilty, "as it may consider appropriate". The compensation is determined based on five aspects: suffering and emotional distress caused to the woman; loss in career opportunity; her medical expenses; income and financial status of the respondent; and the feasibility of such payment.
- **If** either the aggrieved woman or the respondent is **not satisfied**, they may appeal in court **within 90 days.**

What protection is available in the Act against a false complaint of sexual harassment?

- Section 14 of the Act deals with punishment for false or malicious complaints and false evidence.
- In such a case, the ICC **"may recommend"** to the employer that it take action against the woman or the person who has made the complaint, in **"accordance with the provisions of the service rules".**
- The Act, however, **makes it clear that action cannot be taken for "mere inability" to "substantiate the complaint or provide adequate proof".**

In a nutshell,

Key provisions of the POSH Act 2013 include

1. Every employer is required to display a notice in the organization providing details of the protection given to female employees against sexual harassment.
2. Employers must constitute **an Internal Complaints Committee** in their organization to address complaints of sexual harassment.
3. **A woman must head the ICC;** at least half of its members should be women.
4. Employers must take steps **to prevent sexual harassment** and ensure that the victims are not victimized or discriminated against.
5. Employers must provide necessary support and assistance to the complainant and make arrangements for her work in case she has to be transferred.

The POSH Act plays a vital role in creating a safe and harassment-free work environment for women. It protects women against sexual harassment in the workplace and ensures that their rights are safeguarded.

Penalty for Non-compliance Under Posh Act

- If the employer fails to establish the ICC, violates, attempts to violate, or aids in the violation of another provision of this PoSH Act or the PoSH Act 2013 Rules, **they may be subject to a fine of up to INR 50,000**.
- Additionally, if an employer who has previously been convicted of a **PoSH Act**

violation commits the same offense and is found guilty, he will **be subject to a double punishment.**

- In addition, **the government or local authority may also cancel or refuse to renew the employer's license or registration,** depending on the circumstances, which is necessary to conduct his business activity.

Challenges in Implementing the POSH Act 2013

- The POSH Act 2013 was introduced in India to protect women in the workplace from sexual harassment. Despite its noble aims, there have been some challenges in implementing the Act:
  - **Awareness about the Act is still low in certain areas**, making it difficult for victims to report cases.
  - **Logistical challenges** in implementing POSH Act in case the IC members are present in multiple locations.
  - **Biased mindsets** of otherwise qualified and experienced personnel.
  - Many organizations still need a grievance redressal mechanism or make no effort to inform employees of their rights under the law.
  - **Fear of Retaliation:** Most people believe that speaking out against the harasser could result in social stigma, embarrassment, and even more harassment.
  - **Incompetence of the IC:** Members of the IC have little to no practical expertise in dealing with such delicate and formal issues. Because of this, numerous inquiry reports are contested in the High Courts via writ petitions submitted in accordance with Article 226 of the Constitution.
  - **Inadequate constitution** of Internal Complaints Committees (ICCs).

Way Forward

- **Continuous training in the organization** for a nuanced understanding of sexual harassment and appropriate code of conduct.
- Inculcating a **deeper level of sensitivity in the workforce**.
- Busting myths to establish that **non-sexual behavior** and sexism may also indicate sexual harassment and physical contact may not automatically fall under it.
- **Senior leadership** to set the right example.
- Educating the IC members about consent and the power dynamics at play.
- **Constant up-skilling** of IC members through training and availability of legal/expert help when needed.
- Encouraging IC members to talk about their unconscious biases as the first step to overcoming them.
- **Providing technical and logistical help** so that meetings can be conducted via video conferences, etc.
- **Rewarding the IC members** for their contribution.
- Amending the Act to mandate the appointment of **at least one member of the IC with a legal background**, would be a step in the right direction.
- Clarification of **applicability, accountability, implementation, and monitoring** should be included in the POSH Act in order **to encourage better reporting.**

6. 3 TRIBAL HEALTH

In News

- Tribal communities in India remain the most neglected and deprived group when it comes to access to healthcare.

Tribal Community

- Over 104 million tribal people live in India.
- 705 tribes are present in India under Scheduled Tribes.
- **8.6% of the country's population** is tribal.

- At present, there are 75 tribal groups identified and categorized as Particularly Vulnerable Tribal Groups.

Findings of Ministry of Tribal Affairs

- The **mortality rate in tribal areas** is 44 per cent higher than the national average.
- **Infant mortality is 63 per cent** higher than the national average
- The challenges Tribal communities face are multifaceted — **lack of infrastructure, medical professionals, connectivity, affordability, equipment, insurance, funding,** and much more.

Report by Expert Committee on Tribal Health

The Committee was constituted jointly by the Ministry of Health & Family Welfare and the Ministry of Tribal Affairs, Government of India in 2013.

- Sex ratio is 990 compared to India's average of 933.
- 40.6% ST population lived below the poverty line as against 20.5% of the non-tribal population.
- 65% of tribal women in the 15-49 years age group suffer from anaemia.
- The rate of institutional delivery is the lowest among tribal women (70.1%).
- Infant Mortality Rate for ST population in 2014 was 44.4.
- Under-five Mortality Rate was 57.2 per 1000 live births.
- Among total deaths due to Malaria, 50% of deaths are from the Tribal population.
- The prevalence of underweight is almost one and a half times in tribal children than in the 'other' castes.
- Only about 25% of pregnant and lactating women and 29-32% children had adequate intakes of both protein and calories.
- Total Fertility Rate for STs is 2.5
- The estimated prevalence of Pulmonary Tuberculosis in the tribal community is significantly higher than the rest of the country- 703 against 256 per 100,000.
- Leprosy proportion of ST is 18.5% of all cases.
- One out of every four tribal adults suffer from hypertension.
- Sickle cell anemia is prevalent 1 in 86 births among tribal communities, in central India.
- Almost 72% of the tribal men in the 15-54 years age group were using tobacco and 50% consumes alcohol.
- Nearly 50 percent of the outpatient visits by tribal people are to public hospitals and more than two third of the indoor hospitalization of tribal population is in government health services.

Potential solutions to the current problems faced by tribal healthcare in India

Component	Brief
Enhancing healthcare infrastructure	• Invest in the development and improvement of healthcare infrastructure in tribal areas, including the establishment of well-equipped hospitals, clinics, and primary healthcare centers. This will ensure that tribal communities have access to quality healthcare services closer to their settlements.
Strengthening human resources	• Increase the availability of healthcare professionals, such as doctors, nurses, and paramedical workers, in tribal areas. This can be achieved through recruitment drives, incentives, and targeted training programs to attract and retain healthcare personnel in these regions.
Promoting health education and awareness	• Launch health education programs that focus on preventive healthcare measures, disease management, and hygiene practices specifically tailored to the cultural and linguistic context of tribal communities. This will

	empower individuals to make informed decisions about their health and promote healthier lifestyles.
Enhancing outreach and mobile health services	• Establish mobile healthcare units that can reach remote and inaccessible tribal areas to provide essential healthcare services, including screenings, immunizations, and basic treatments. These mobile units can bridge the gap between healthcare facilities and tribal communities, improving access to care.
Culturally sensitive healthcare	• Develop culturally sensitive healthcare models that respect and incorporate traditional healing practices and beliefs of tribal communities. Collaborating with traditional healers and integrating their knowledge with modern medical practices can promote trust, engagement, and better healthcare outcomes.
Strengthening community participation	• Encourage active participation of tribal communities in decision-making processes related to healthcare. Engaging community leaders, tribal representatives, and local organizations can help in designing and implementing healthcare programs that are responsive to their needs and preferences.
Government policies and support	• Implement policies that prioritize tribal health and allocate sufficient funds for healthcare infrastructure, human resources, and health education programs. Government support and initiatives are crucial in addressing the unique challenges faced by tribal communities and ensuring equitable healthcare access.
Research and data collection	• Conduct research and collect data specifically focused on tribal health to understand the specific health challenges, prevalent diseases, and healthcare needs of these communities. Evidence-based approaches can help in designing effective interventions and policies.

Other

- Investing in medical colleges and training centres across such remote areas. These institutions can equip local healthcare providers with the necessary skills and knowledge to offer quality healthcare services. It has the potential to bridge the gap in healthcare infrastructure and provide employment opportunities for the local population.

CASE STUDY

Mera Baccha Abhiyan, aims to fight malnutrition through public participation in Datia district, Madhya Pradesh. As a result, the malnutrition rate in the district dropped by 17.5 per cent, making it lower than the state's average. Because of this, the district also witnessed a rise in immunisation from 53.2 per cent to 79.6 per cent, breast feeding from 32 per cent to 56.4 per cent, and a drop in diarrhea from 12.9 per cent to 5.7 per cent. This scheme perfectly demonstrates the power of public partnerships in healthcare provision.

Conclusion

- In conclusion, addressing the healthcare challenges faced by tribal communities in India requires a comprehensive and culturally sensitive approach.
- By investing in **healthcare infrastructure, strengthening human resources, promoting health education, and enhancing outreach services,** significant progress can be made in improving access to healthcare for tribal populations.
- Additionally, **integrating traditional healing practices and beliefs,** along with engaging tribal communities in decision-making processes, will foster trust and better healthcare outcomes.
- Government support, research, and data collection are essential for evidence-based interventions and policies that target the unique health needs of tribal communities.
- By implementing these potential solutions, India can work toward achieving health equity and improving the overall well-being of its tribal populations.
- It is imperative that all stakeholders, including government bodies, healthcare professionals, community leaders, and tribal representatives, collaborate and prioritize the health and welfare of tribal communities to ensure a brighter and healthier future for all.

6. 4 DOMESTIC VIOLENCE AGAINST WOMEN

Context

- A Delhi court framed charges of murder and disappearance of evidence against Aaftab Poonawala, who was arrested last year for allegedly killing his live-in partner Shraddha Walkar.

Domestic Violence Against Women

- Any act of gender-based violence against women that causes or is likely to cause them **physical, sexual, or emotional injury or suffering, including threats of such actions, coercion, or arbitrary deprivation of liberty**, whether in public or private, is known as domestic violence.

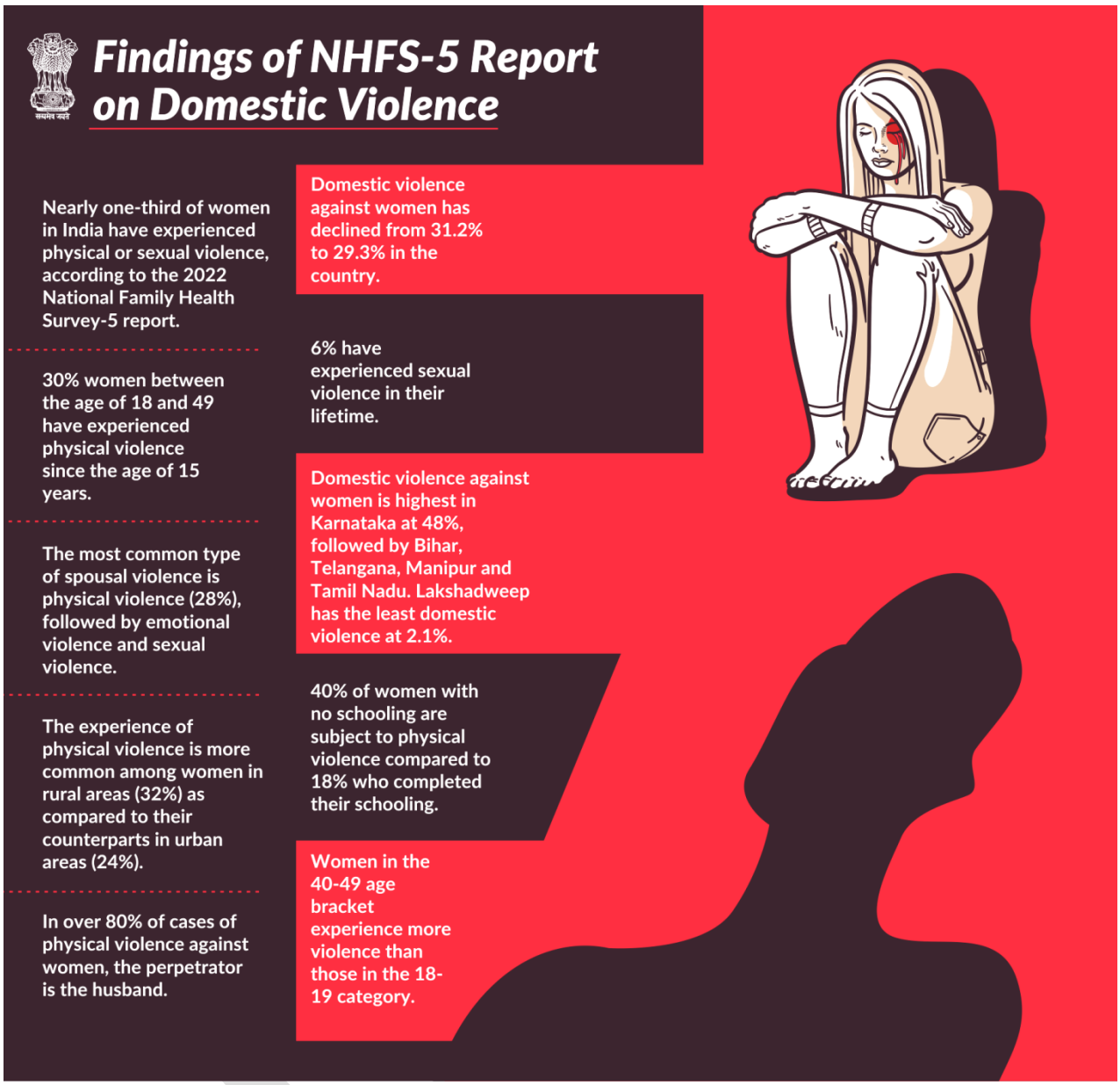
Cardinals

- According to estimates made by the WHO, around one in three (30%) women worldwide have experienced physical and/or sexual intimate relationship abuse or non-partner sexual violence at some point in their lives.
- Lifetime prevalence of domestic violence against women by husband or intimate partner among ten studies ranged from 20-78%.
- According to **National Crime Records Bureau of India, a crime against a woman in committed every three minutes.**
- As many as 324,000 women each year experience intimate partner violence during their pregnancy.

Legal History

In India, there are numerous laws against domestic abuse:

- The **Dowry Prohibition Act of 1961** was the first law to criminalise the giving and receiving of dowries.
- Two new sections, Section 498A and Section 304B, were added to the **Indian Penal Code in 1983 and 1986** in an effort to strengthen the 1961 statute.
- The **Protection of Women from Domestic Violence Act (PWDVA)** of 2005 is the most recent piece of legislation.



Role of the judiciary for protecting the rights of women from Domestic Violence in India

- The constitution of India has given many powers to the supreme court, high courts, and district court to protect the rights of the people.
    - In ***S.R. Batra vs. Smt. Taruna Batra***, the court held that the wife is only entitled to claim residence in a shared household. The shared home means the house belonging to the husband or taken on rent by the husband, joint family property in which the husband is the member of that family.
    - In ***Krishna Bhatacharjee v. Sarathi Choudhury and Another***, Supreme Court said that there are some duties or principles followed by the courts while deciding the domestic violence case.
    - In ***VimlabenAjitbhai Patel v. VatslabenAshokbhai Patel and Ors.***, the court said that the husband has a personal obligation to maintain his wife.
    - In ***V.D Bhanot vs. Savita Bhanot***, the Delhi High Court said that even the wife who had shared a household before the domestic violence act came into force

would be entitled to protect the domestic violence act.

- In ***Indira Sarma vs. VKV SarSma***, the Supreme Court said that not all live-in relationships are the relationships in the nature of marriage. For testing the concept of a live-in relationship, courts see the duration of relationship, shared household, domestic arrangements, polling of resources and financial arrangements, sexual relationship, intention, and conduct of the parties, and socialization in public.

Suggestions

Awareness generation and sensitization

- **Awareness about gender equality and women's rights should be instilled in boys and girls from a very early age** in order to bring about a change in the mindset of the future generation;
- **Stigma attached to victims of domestic violence should be removed** by conscientizing the community through outreach programmes;
- **Legal literacy camps** should be conducted on a regular and systematic basis at the local community level;
- List of NGOs and governmental organizations dealing with women's issues should be made known to the public;
- Health care providers such as doctors, nurses, and other Para-medical staff should be properly **sensitized to treat women experiencing violence;**
- **Sensitization programmes** should be organized for the policy makers,

Health care support

- Domestic violence should be recognized as a health issue;
- The prevalence and the health consequences of domestic violence should be documented;

Counseling

- Pre-marital counseling should be made compulsory; post-marital counseling is to be arranged as follow-up, in order to prevent breakdown of families.

Fostering Self-Employment among Women

Laws

- Separate laws should be enacted to deal with domestic violence;
- There should be strict laws for the prevention of vices such as alcoholism and drug addiction and social evils such as the dowry system;

Judiciary

- There should be a special court with a woman judge and magistrate in each district to handle domestic violence cases;
- Only women magistrates should try cases of violence against women;
- **Mobile courts** should be introduced as an effective strategy to provide justice to the victims of domestic violence;
- Law enforcement should be done by the co-ordinated efforts of police.

Role of Government

- Government should ensure **proper enforcement of existing laws** related to women's rights;
- Women should be made aware of Women's Commission; offices of the Women's Commission should be opened at the district and lower levels;

Role of police

- Police should be trained to be respectful and courteous to women in distress;
- A separate wing of police may be opened for dealing with women's issues, in all police stations and personnel of this wing should be exempted from other duties;
- Only women police officials should be allowed to handle cases involving women;

Role of Media

- Discussions on women's issues with victims and key personnel could be promoted through the media, to give a new venue to the airing of the complaints and finding solutions to the offences;
- **Media should be used to sensitise the officials and the public about domestic violence** so as to develop a positive attitude towards women in general, and women victims, in particular;
- **Censoring of the programmes should be implemented effectively**, so that violence and

APTI PLUS

negative impact programmes do not get undue attention of the public.

Other

- Strengthening Criminal Justice machinery.
- Strict **implementation and monitoring of the laws** and Schemes and Strengthened enforcement.
- **Strengthening of Alternate Dispute resolution mechanisms** like Lok Adalat.
- Provide **Self-defense Training**
- **Gender Sensitization of the law enforcement agencies**, especially Police and Judiciary.
- **Adopting zero tolerance Policy**, Moral education through awareness and education.
- Promoting Social and economic empowerment of women through Policies and Programmes.
- **Economic empowerment of women** through Property rights, Create awareness about their Rights.
- Ensuring **gender-friendly Public Spaces.**
- Equal access to Nutrition, Health, and education.
- Adopt a life cycle approach to the empowerment of girls and women.
- **Gender equality and violence Prevention Programmes** can be introduced in Schools and Colleges.
- Strictly regulate the Sale and distribution of acid.
- **Marital rape should be made an offence** irrespective of the age of the wife.
- **Khap panchayat's** decisions, and all those involved in them, that led to honour killings or violent Crimes **must be Criminally Punished.**
- Increase the representation of women in the Judiciary, both at higher and lower levels.
- All Police Stations must have women and a Child Protection desk.
- The number of women in Police Should be increased.

6. 5 SHORT TOPICS

'Poshan Bhi, Padhai Bhi'

Context

- Union Minister for Women and Child Development Smriti Irani launched the Centre's flagship programme 'Poshan Bhi, Padhai Bhi'.

About

About	• **It is a path breaking Early Childhood Care and Education.** • **The scheme is based on the National Education Policy 2020.**
Ministry	• Launched by the **Union Ministry of Women and Child Development.**
Aim	• To **create the world's largest universal high-quality preschool network** envisaged by the National Education Policy.
Objectives	• Ensure the use of developmentally appropriate pedagogies. • Emphasize the links with primary education as well as early childhood health and nutrition services. • Strengthen the Anganwadi centers with high-quality infrastructure, play equipment, and well-trained Anganwadi workers/teachers. • Involve communities in strengthening the foundations of the country's future generations.
Features	• It envisages universal, **high-quality preschool education** for all children in the age group of **3-6 years.** • It will provide **two hours**

	of daily preschool instruction in the mother tongue to children at Anganwadis. • It will focus on the **holistic development of children**, covering physical, cognitive, socio-emotional, cultural and linguistic aspects. • It will train Anganwadi workers to implement ECCE with the help of the National Institute of Public Cooperation and Child Development (NIPCCD). • It will involve communities and civil society organizations in **creating awareness and mobilizing support for ECCE.**
Significance	• 85% of brain development is achieved by the age of 6 years. Therefore, Anganwadis are **important in imparting education and nutrition to children at this crucial stage.** • POSHAN BHI PADHAI BHI is an ambitious and innovative programme that **aims to transform the Anganwadi centres into centres of excellence for early childhood care and education.** • It will help India achieve its **goals of universalizing preschool education, improving learning outcomes, reducing malnutrition, and enhancing human capital.**

6. 6 1 MAINS QUESTION AND 3 MCQS

Q1. The Protection of Women from Sexual Harassment at Workplace Act, 2013 (POSH Act 2013) is a landmark legislation in India that seeks to protect women from sexual harassment. What are the key provisions of the POSH Act 2013? Shed light on the challenges in implementing the POSH Act 2013. Suggest appropriate measures.

The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Red ressal) Act, was **passed in 2013.**It **defined sexual harassment, lay down the procedures for complaint and inquiry, and the action to be taken in cases of sexual harassment.**

Key provisions of the POSH Act 2013 include

- Every employer is required to display a notice in the organization providing details of the protection given to female employees against sexual harassment.
- Employers must constitute **an Internal Complaints Committee** in their organization to address complaints of sexual harassment.
- **A woman must head the ICC;** at least half of its members should be women.
- Employers must take steps **to prevent sexual harassment** and ensure that the victims are not victimized or discriminated against.
- Employers must provide necessary support and assistance to the complainant and make arrangements for her work in case she has to be transferred.

Penalty for Non-compliance Under Posh Act

- If the employer fails to establish the ICC, violates, attempts to violate, or aids in the violation of another provision of this POSH Act or the POSH Act 2013 Rules, **they may be subject to a fine of up to INR 50,000**.
- Additionally, if an employer who has previously been convicted of a **POSH Act** violation commits the same offense and is found guilty, he will **be subject to a double punishment.**
- In addition, **the government or local authority may also cancel or refuse to renew the employer's license or registration,** depending on the circumstances, which is necessary to conduct his business activity.

Challenges in Implementing the POSH Act 2013

- The POSH Act 2013 was introduced in India to protect women in the workplace from sexual harassment. Despite its noble aims, there have been some challenges in implementing the Act:
  - **Awareness about the Act is still low in certain areas**, making it difficult for victims to report cases.
  - **Logistical challenges** in implementing POSH Act in case the IC members are present in multiple locations.
  - **Biased mindsets** of otherwise qualified and experienced personnel.
  - Many organizations still need a grievance redressal mechanism or make no effort to inform employees of their rights under the law.

Way Forward

- **Continuous training in the organization** for a nuanced understanding of sexual harassment and appropriate code of conduct.
- Inculcating a **deeper level of sensitivity in the workforce**.
- Busting myths to establish that **non-sexual behaviour** and sexism may also indicate sexual harassment and physical contact may not automatically fall under it.
- **Senior leadership** to set the right example.
- Educating the IC members about consent and the power dynamics at play.
- **Constant up-skilling** of IC members through training and availability of legal/expert help when needed.

Q2. Consider the following statements:

1. Polygamy violates the International Covenant on Civil and Political Rights (ICCPR).
2. The penal provisions of Polygamy in India do not apply to adulterous relationships that do not qualify as valid marriages under the law.

How many of the above statements are correct?

a. Only one
b. Only two
c. Both 1 and 2
d. None of the above.

Answer: c. Both 1 and 2

Both the statements 1 and 2 are correct.

Q3. Consider the following statements:

1. Under the POSH Act 2013 if the employer fails to establish the Internal Complaints Committee, violates, attempts to violate, or aids in the violation of another provision of this POSH Act or the POSH Act 2013 Rules, they may be subject to a fine of up to INR 50,0000.
2. A woman must head the Internal Complaints Committee; at least half of its members should be women.

Which of the above statements are correct?

a) 1 only
b) 2 only
c) 1 and 2 only
d) None of the above.

Answer: b

Statement 1 is incorrect: Under the POSH Act 2013 if the employer fails to establish the Internal Complaints Committee, violates, attempts to violate, or aids in the violation of another provision of this PoSH Act or the PoSH Act 2013 Rules, they may be subject to a fine of up to INR 50,000.

Statement 2 is correct.

Q4. Consider the following statements:

1. POSHAN BHI PADHAI BHI is an ambitious and innovative program that aims to

transform the Anganwadi centres into centres of excellence for early childhood care and education.

2. It envisages universal, high-quality preschool education for all children in the age group of 6-10 years.
3. The scheme is based on the National Education Policy 2020.

Which of the above statements are correct?

a) 1 and 3 only
b) 2 only
c) 3 only
d) 2 and 3 only

Answer: a

Statement 1 is correct.

Statement 2 is incorrect: It envisages universal, high-quality preschool education for all children in the age group of 3-6 years.

Statement3 is correct.

7. SCIENCE & TECHNOLOGY, HEALTH

7. 1 REGULATING ARTIFICIAL INTELLIGENCE

Context

- Members of the European Parliament reached a preliminary deal this week on a new draft of the European Union's ambitious Artificial Intelligence Act, first drafted two years ago.

Details

- The regulation of artificial intelligence is the development of public sector policies and laws for promoting and regulating artificial intelligence (AI); it is therefore related to the broader regulation of algorithms.
- The regulatory and policy landscape for AI is an emerging issue in jurisdictions globally, including in the European Union and in supra-national bodies like the IEEE, OECD and others.
- Since 2016, a wave of AI ethics guidelines has been published in order to maintain social control over the technology.

EU's Artificial Intelligence Act

Aim	• **It aims to address ethical questions and implementation challenges in various sectors ranging from healthcare and education to finance and energy.** • **The legislation seeks to strike a balance between promoting "*the uptake of AI while mitigating or preventing harms associated with certain uses of the technology".***
Background	• The legislation was drafted in 2021 with the aim of bringing transparency, trust, and accountability to AI and creating a framework to mitigate risks to the safety, health, fundamental rights, and democratic values of the EU.
Scope	• It is expansive and will govern anyone who provides a product or a service that uses AI. • It will cover systems that can generate output such as **content, predictions, recommendations, or decisions influencing environments.** • Apart from uses of AI by companies, it will also look at AI used in public sector and law enforcement. • It will work in tandem with other laws such as the ***General Data Protection Regulation (GDPR).*** • Those using AI systems which interact with humans, are used for surveillance purposes, or can be used to generate "**deepfake**" content face strong transparency obligations.

Need for regulating Artificial Intelligence

- Regulation is now generally considered necessary to both encourage AI and manage associated risks.
- **Associated risks:** They are capable of performing a wide variety of tasks including voice assistance, recommending music, driving cars, detecting cancer, and even deciding chances of getting shortlisted for a job— the risks and uncertainties associated with them have also ballooned.
- **Omnipresence**: Artificial intelligence technologies have become omnipresent and their algorithms more advanced.
- **Complex and unexplainable AI tools:** Many AI tools are essentially black boxes, meaning even those who design them cannot explain what goes on inside them to generate a particular output.

"Powerful AI systems should be developed only once we are confident that their effects will be positive and their risks will be manageable,"

The Act entails

- The Act broadly defines AI as "software that is developed with one or more of the techniques that can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with".
- The Act's central approach is the classification of AI tech based on the level of risk they pose to the **"health and safety or fundamental rights" of a person.**There are four risk categories in the Act:
  - Unacceptable
  - High
  - Limited and,
  - Minimal.
- **The Act prohibits using technologies in the unacceptable risk category with little exception**.
  - These include the use of real-time facial and biometric identification systems in public spaces;
  - **For e.g.:**China-like systems of social scoring of citizens by governments leading to "unjustified and disproportionate detrimental treatment.
- The Act lays substantial focus on AI in the high-risk category, prescribing a number of **pre-and post-market requirements for developers and users** of such systems.
  - For e.g. biometric identification and categorization of natural persons, AI used in healthcare, education, employment (recruitment), law enforcement, justice delivery systems.
- The Act envisages establishing an EU-wide database of high-risk AI systems and setting parameters so that future technologies or those under development can be included if they meet the high-risk criteria.

READ: https://www.iasgyan.in/daily-current-affairs/ai-regulation-across-the-world
READ: https://www.iasgyan.in/blogs/basics-of-artificial-intelligence

Risk associated with the Act

- **Bias within generative AI is a long-standing and serious issue** that can lead to skewed outcomes with real-world consequences on people's lives.
  - AI algorithms may exclude job applicants based on age, for example, or predict who might commit a crime based on racial profiling.
- **Unacceptable**: Applications that comprise subliminal techniques, exploitative systems or social scoring systems used by public authorities are strictly prohibited.
  - Also prohibited are any real-time remote biometric identification systems used by law enforcement in publicly-accessible spaces.
- **High Risk:** These include applications related to transport, education, employment and welfare, among others.
  - Before putting a high-risk AI system on the market or in service in the EU, companies must conduct a prior "conformity assessment" and meet a long list of requirements to ensure the system is safe.
- **Minimal Risk**: These applications are already widely deployed and make up most of the AI systems we interact with today.
  - Examples include spam filters, AI-enabled video games and inventory-management systems.

Way forward

- **Introduce an AI Risk Assessment Framework**: This should address bias risk at every stage of a project, from design to retirement.
  - It means understanding and documenting the intrinsic characteristics of the data, carefully deciding on the goal of the algorithm, using appropriate information to train the AI and capturing all model parameters and performance metrics in a model registry.
- **Establish a Governance Infrastructure**: Most companies should be familiar with creating AI systems that are compliant with existing regulations, so the proposed regulations should not come as a shock.

- Setting up a risk management system and complying with best practices on technical robustness, testing, data training, data governance and cybersecurity is expected.

- **Evaluate and Enhance Privacy Programs**: The AI Act contains an exemption that allows providers to process select types of personal data when monitoring, detection and bias correction are needed.
- **Become AI Fluent across the Enterprise**: The need for greater AI skills is paramount, not only for teams working directly with the systems, but for those that operate adjacent to them.
  - Legal departments, for instance, will need to be familiar with how their organisations' AI systems operate to ensure they comply with the proposed regulations.

READ: https://www.iasgyan.in/daily-current-affairs/european-unions-ambitious-artificial-intelligence-act

7. 2 CARBON DATING

Context

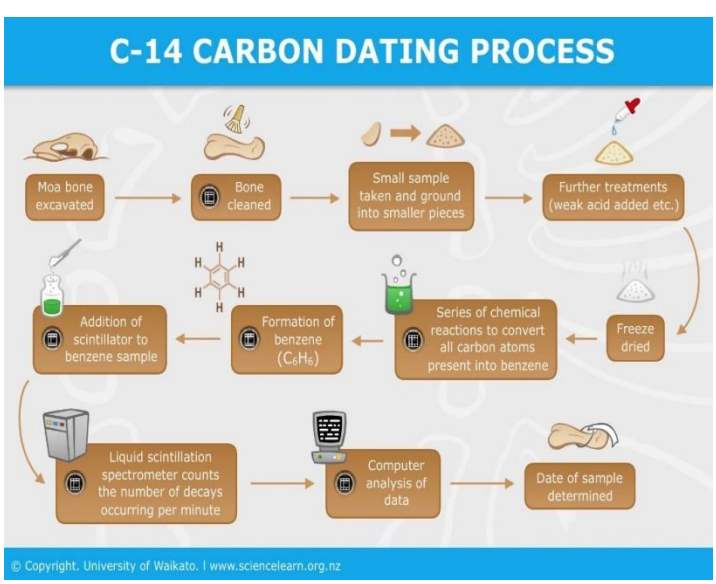
- The Allahabad High Court on Friday (May 12) ordered a "scientific survey", including carbon dating, of a "Shivling" said to have been found at the Gyanvapi mosque complex in Varanasi after setting aside a lower court order on the issue.

Details

About	• **Carbon dating is a system of calculating the age of a very old object by measuring the amount of radioactive carbon it contains.**
Background	• Radiocarbon dating, or carbon-14 dating, is a scientific method that can accurately determine the age of organic materials as old as approximately 60,000 years. • First developed in the late 1940s at the University of Chicago by Willard Libby, the technique is based on the decay of the carbon-14 isotope.
Working	• It is based on the fact that living organisms—like trees, plants, people, and animals—absorb carbon-14 into their tissue. • When they die, the carbon-14 starts to change into other atoms over time. • Scientists can estimate how long the organism has been dead by counting the remaining carbon-14 atoms.

What is the science behind carbon dating?

- Carbon dating is a widely-used method to establish the age of organic materials, things that were once living. Living things have carbon in them in various forms.
- The dating method is based on the fact that Carbon-14 (C-14), an isotope of carbon with an atomic mass of 14, is radioactive, and decays at a well-known rate.



How it works?

- The most abundant isotope of carbon in the atmosphere is C-12. A very small amount of C-14 is also present. The ratio of C-12 to C-14 in the atmosphere is almost static, and is known.

- Plants get their carbon through photosynthesis; animals get it mainly through food. Because plants and animals get their carbon from the atmosphere, they too acquire C-12 and C-14 in roughly the same proportion as is available in the atmosphere.
- When they die, their interactions with the atmosphere stops. While C-12 is stable, the radioactive C-14 reduces to one half of itself in about 5,730 years — known as its 'half-life'.
- The changing ratio of C-12 to C-14 in the remains of a plant or animal after it dies can be measured, and can be used to deduce the approximate time when the organism died.

Does it apply to non-living things?

- Though extremely effective, carbon dating cannot be applied in all circumstances. It cannot be used to determine the age of non-living things like rocks, for example.
- Also, the age of things that are more than 40,000-50,000 years old cannot be arrived at through carbon dating.
- This is because after 8-10 cycles of half-lives, the amount of C-14 becomes almost very small and is almost undetectable.
- But there are other methods to calculate the age of inanimate things, many of which are based on the same principle as carbon dating.
- So, instead of carbon, decays of other radioactive elements that might be present in the material become the basis for the dating method.

Limitations of Carbon dating

- The various dating techniques all have limitations. Each works best for different types of problems. Radiocarbon dating works on organic materials up to about 60,000 years of age.
- Conventional radiocarbon dating requires samples of 10 to 100 grams (0.35 to 3.5 ounces) of an object, depending on the material in question. Newer forms of dating can use much smaller amounts, down to 20 to 50 milligrams or 0.0007 to 0.0018 ounces. In both cases, the material is destroyed during the test.
- Radiocarbon samples are also easily contaminated, so to provide accurate dates, they must be clean and well-preserved.
- Dirt and other matter must be washed off with water, but chemical treatments and other cleaning procedures are also often needed. This is because there are so few atoms to count; even a little extra carbon from contamination will throw off the results significantly.

Significance of carbon dating:

- The technique of carbon dating used to estimate the age of organic materials.
- The principle behind carbon dating is that it is possible to measure the ratio of radioactive carbon-14 to stable carbon-12 in a sample.
- The unstable carbon-14 gradually decays to stable carbon-12, and the ratio of these two isotopes can used to calculate the age of the sample.
- The technique is particularly useful for determining the age of bone, charcoal, and other materials that contain organic matter.

READ: https://www.iasgyan.in/daily-current-affairs/carbon-dating-29

7. 3 THREE-PARENT BABY

Context

- The first UK baby created with DNA from three people has been born after doctors performed a ground-breaking IVF procedure that aims to prevent children from inheriting incurable diseases.

Details

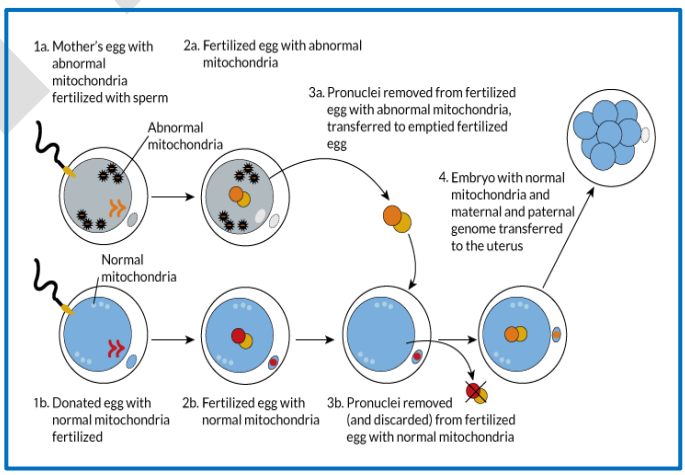
- A baby in UK has been created using IVF procedure with DNA of three people in a bid to prevent children from inheriting incurable diseases.
- Known as Mitochondrial donation treatment (MDT), the procedure involves development of embryo combining sperms and eggs from the biological parents along with the mitochondria from donor's eggs.
- More than 99.8% of the DNA in the children would come from their mother and father.
- The idea is to prevent babies of mothers with mutated mitochondria from genetic disorders.
- People inherit all their mitochondria from their mother, so harmful mutations in the 'batteries' can affect all of the children a woman has, says the Guardian report.

About Mitochondrial donation treatment (MDT)

About	• **The technique, known as** mitochondrial donation treatment (MDT), **uses tissue from the eggs of healthy female donors to create IVF embryos that are free from harmful mutations their mothers carry and are likely to pass on to their children**.
Background	• US doctor in **2016 is credited with world's first MDT birth** after a Jordanian woman carrying mitochondrial mutations that could cause a fatal condition called **Leigh syndrome** was treated**.**
How the procedure works?	• Eggs of the mother and a healthy female donor is fertilised using sperm from the father and the nuclear genetic material from the donor's egg is then removed and replaced with that from the couple's fertilised egg. • The resulting egg has healthy mitochondria with the full set of chromosomes from both mother and father. This is then implanted in the womb.

What is the impact of mitochondrial DNA?

- In common parlance, mitochondria is called the "powerhouse" of the cell and is a small organelle responsible for producing energy.
- In addition to this, they are also the only organelle in the human cell apart from the nucleus that comprises their own DNA called mitochondrial DNA (mtDNA).
- At the time of fertilisation of the female egg and the male sperm, it is inherited solely from the mother.
- This means that if there are any mutations or abnormalities in mtDNA, it can be passed on to children causing mitochondrial disorders which influences energy metabolism hence, impacting a child's overall health and well-being.



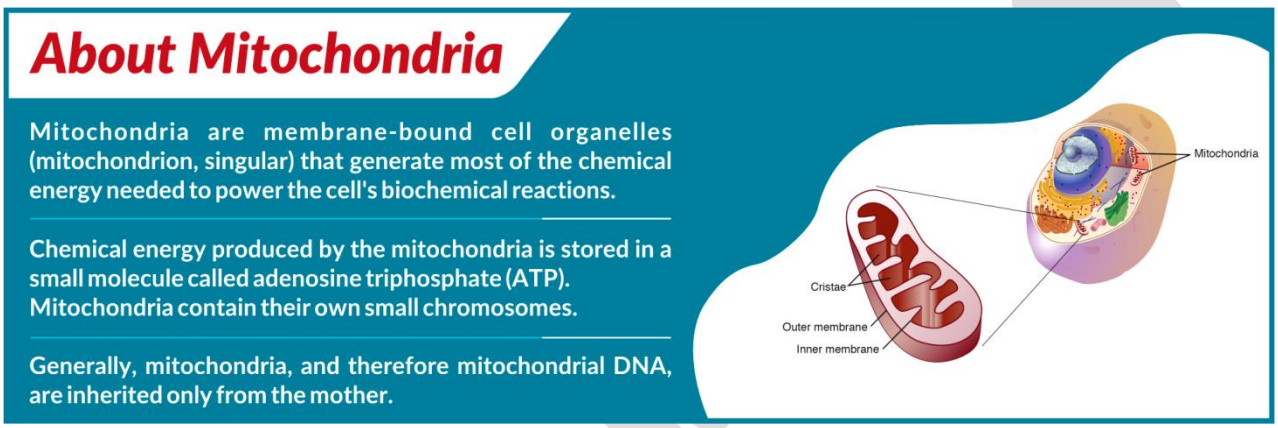
Benefits of MRT

- MRT offers new possibilities for overcoming fertility challenges due to mitochondrial disease and could have a significant impact on the lives of couples struggling with infertility.
- MRT provides a way to prevent the transmission of these diseases without resorting to alternative options such as egg or embryo donation.
- It allows parents to maintain a biological relationship with their child, which can be an essential factor for many couples.

READ: https://www.iasgyan.in/daily-current-affairs/mitochondrial-replacement-therapy-mrt

Risk associated with the MRT

- **Replacing the nucleus does not prevent development** into a baby, but it causes damage to the cell that probably requires radical re-organisation. So, the effects of such manipulations are still unknown and could cause problems later in life, such as an increased chance of diabetes.
- Many experts have expressed concerns about safety of the technique as well.
- There has been very little animal testing, much fewer human tests, and only 5 babies have been born from MRT.
- Most scientists don't want unregulated MRT, and view the regulatory approach in the U.K. to be a model for safely exploring the treatment. Last year, Australia became the second country to approve this therapy.



7. 4 AADHAAR-ENABLED PAYMENTSYSTEM

Context

- Aadhaar Enabled Payment System (AePS) is a bank-led model that allows online interoperable financial transactions at Point-of-Sale (PoS) devices and micro-ATMs of any bank using Aadhaar authentication.

Details

About	• **AePS is a bank-led model that is developed by the** National Payments Corporation of India (NPCI), **which is the umbrella organization for all retail payment systems in India.**
Features	• The model removes the need for OTPs, bank account details, and other financial details. • It allows fund transfers using only the bank name, Aadhaar number, and fingerprint captured during Aadhaar enrolment. • It facilitates the delivery of government benefits and subsidies directly to the beneficiary's bank accounts through Aadhaar. • It is a simple, secure and convenient way to make payments, especially for those who do not have access to smartphones, the Internet or formal banking channels.

Objectives

- Aimed at empowering people to carry out banking and financial services like fund transfers, cash withdrawals, mini statements, balance inquiries, etc through a business correspondent, the Reserve Bank of India (RBI) and the Government of India to go cashless in retail payments by enabling Aadhaar-originated interbank transactions through centralized switching and clearing organizations.
- To simplify payments of government schemes like social security pension, handicapped old age pension, National Rural Employment

Guarantee Act (NREGA), etc. for any State or Central government bodies using Aadhaar, AePS is put to use.

How it works?

The National Payments Corporation of India

(NPCI) developed AePS to offer a wide range of objectives aimed at individuals or organizations that participate in the financial and banking system. **AePS can be used by the following:**

- **Government and Regulators**: AePSfulfills the government's goal of furthering financial inclusion all over India. To initiate alternative living choices of being a Business Correspondent.
  - Along with this, they aim to go cashless with digital transactions of retail payments and set up an acceptance framework, through BHIM Aadhaar Pay.
- **Banks**: AePS enables trouble-free interoperability between banks with an easy and time-effective KYC process.
  - It saves money and helps the bank to address the customers in remote areas where the bank branches are not present.
- **Individuals**: AePS has brought banking to every individual's doorstep and made it easier for them to do all the banking activities without visiting the branch, worrying about carrying cards or keeping in mind the pins and passwords.
  - These services are included for banking customers.
- **Merchants**: AePS allows traders to require digital payments inclusively and beneficially.

Benefits of AePS

Wide Coverage

- One of the main benefits of using AEPS services is that it has a wide coverage area. AEPS is available in over 6 lakh villages and 70,000 urban areas in India. This means that if you are a service provider, you can offer your services to a larger customer base, including those in remote and rural areas where traditional payment options may not be available.

Low Transaction Costs

- AEPS transactions have lower costs than traditional payment options such as credit cards or debit cards. As a service provider, you can save money on transaction fees and pass on the savings to your customers. This makes AEPS an affordable payment option for both service providers and customers.

Secure Transactions

- AEPS transactions are secure as they are authenticated using biometric data. This means that there is less risk of fraud or unauthorized transactions. As a service provider, you can be assured that your transactions are safe and secure.

Fast Transactions

- AEPS transactions are fast and can be completed within seconds. This makes it a convenient payment option for customers who want to make quick transactions. As a service provider, you can provide fast and efficient services to your customers.

Increased Customer Loyalty

- Offering AEPS services can help you build customer loyalty. Customers appreciate the convenience and affordability of AEPS transactions, and are more likely to use your services again in the future. This can lead to increased customer loyalty and repeat business.

Easy to Use

- AEPS is easy to use, even for those who are not familiar with digital payment systems. Customers only need to provide their Aadhaar number and biometric data to complete transactions. As a service provider,

you can offer a user-friendly payment option that is accessible to everyone.

Government Support

- AEPS is supported by the government of India, which means that it is a reliable and trusted payment system. As a service provider, you can be assured that your transactions are backed by the government and that there is a strong regulatory framework in place.

Multiple Payment Options

- AEPS offers multiple payment options, including cash withdrawal, balance enquiry, and money transfer. This means that you can offer a range of services to your customers, depending on their needs.

Challenges

Transaction failures

- The AePS is prone to transaction failures due to various reasons, such as biometric mismatches, network connectivity issues, system errors, or interoperability problems among different banks and service providers.
- These failures cause inconvenience and frustration to customers who need to access or remit cash urgently, especially during the COVID-19 crisis when many government schemes rely on AePS for cash transfers.

Lack of awareness and financial literacy

- Many customers are not aware of the benefits and features of AePS, or how to use it safely and effectively. They may also lack the financial literacy to understand the terms and conditions, fees, and risks involved in using AePS.
- This may lead to misuse, fraud, or exploitation by unscrupulous agents or business correspondents who may charge excessive fees, provide false information, or manipulate transactions.

Inadequate infrastructure and regulation

- The AePS requires adequate infrastructure and regulation to ensure its smooth functioning and customer protection.
- This includes reliable biometric devices, network connectivity, power supply, security systems, grievance redressal mechanisms, and quality standards for service providers. However, these are often lacking or inconsistent across different regions and contexts, affecting the quality and accessibility of AePS services.

Conclusion

- AEPS offers several benefits to service providers, including wide coverage, low transaction costs, secure transactions, fast transactions, increased customer loyalty, easy to use, government support, and multiple payment options. If you are a service provider looking to offer convenient and affordable payment options to your customers, AEPS is definitely worth considering.

READ: https://www.iasgyan.in/daily-current-affairs/aadhaar-enabled-payment-system

7. 5 INDIA'S PHARMACEUTICAL INDUSTRY

Context

- In the absence of effective regulations of pharmaceuticals industry, many casualties have taken place due to consumption of faulty medicines.

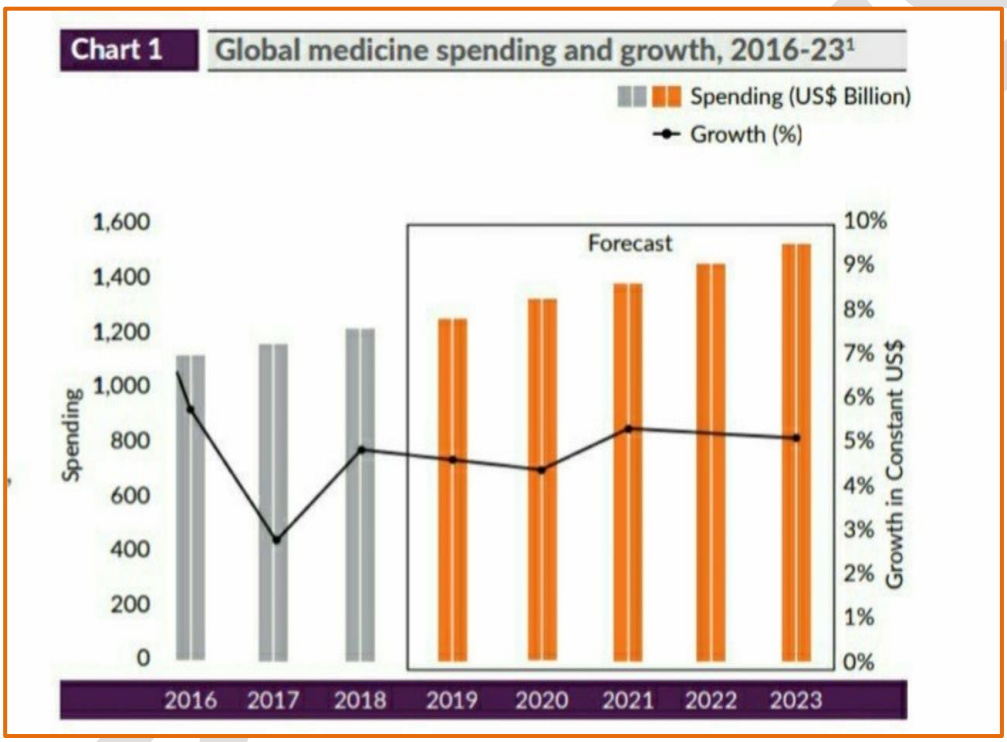
Details

- In January 2020, 12 children in Jammu died after consuming contaminated medicine manufactured by Digital Vision.
- 6 months later, a two-year-old from Himachal Pradesh died after consuming Cofset cough syrup, manufactured from the same company.

About Generic drugs market

Facts

- The low cost of generics is an alternative to branded drugs and hence generics dominate, making up for 70 to 80% of the retail market.
- As India's population grows, especially the aging population has significantly increased the demand for generic medicines on account of their affordability and effectiveness, which is same as branded medicines.
- According to some study, the global generic drugs market was worth USD 390.57 billion in 2020 and is projected to reach approximately USD 574.63 billion by 2030, attaining a compound annual growth rate (CAGR) of 5.59 per cent between 2021 and 2030.



What are the issues associated with regulating pharmaceutical industry?

- India has 36 drug regulatory bodies; however, an alarming number of drugs have recently failed to meet quality standards.
  - For example, in February 2021, Global Pharma Healthcare had to recall a batch of eye drops exported to the US due to links with vision loss.
- Indian manufactured cough syrups caused many deaths in Gambia and Uzbekistan in 2022.
- Between November 2019 and November 2022, the US FDA raised 60 Official Action Indications (OAIs) against Indian pharmaceutical companies.
- It was found that procedures to prevent **microbiological contamination of drugs** were not established or followed. Also, environmental monitoring programmes do not include measures to control fungal contamination.
- Some of these actions led to import alerts preventing them from supplying to the US market. These compliance failures can jeopardize India's reputation as a reliable drug manufacturing nation.
- **3 per cent of all drugs in routine use** — for hypertension, allergies and bacterial infections — were found to be substandard by regulatory inspectors.

Measures taken by government

- Several initiatives are undertaken by government bodies towards awareness of the availability of generics like **PradhanMantriBhartiyaJanaushadhiPariyojana (PMBJP) under which PMBJP Kendras** across the country will make quality generic drugs and implants accessible at affordable prices.
- Despite the negative publicity, several countries still seek access to Indian generics. Therefore, the Indian pharmaceutical industry must take up the challenge and strive for zero defects in its products.
- **The Drugs and Cosmetics Act (1940)** should be amended, and a centralised drug database should be created for effective surveillance of all pharmaceutical manufacturers.
- India's 36 regional regulators should be merged into a single body.
- **Setting common standards across states** could help reduce the risk of inconsistent regulatory enforcement.
- **India has more than 10000 pharmaceutical manufacturing units**. To cover all, additional budgetary support is needed to enhance inspection teams and enable more frequent quality-related inspections.
- **Increased transparency and credibility**is required by public access to detailed notes of drug application reviews, past violations, inspection records, and failure history.
- **There should be clear penalties** for firms exporting spurious drugs, a public database of safety data, and a national law on drug recall.
- **The Central Drugs Standard Control Organisation (CDSCO)** needs to be reinforced with statutory backing and should be independent.

India's domestic pharmaceutical industry is estimated to reach USD 130 billion by 2030 and the pharma market has sustained its growth momentum after the Covid-19 pandemic, according to the Economic Survey 2022-23 released on 31 January, 2023.

READ: *https://www.iasgyan.in/daily-current-affairs/generic-medicines*

Conclusion

- Generic medicines are low in cost but as effective and safe as branded medicines. In India, it is being widely used, the PMBJP aims to spread more awareness among people.
- Also, the pharmaceutical industry has shown tremendous progress and adapted to a changing environment which will help in achieving more success in generic drugs export from India.

7. 6 AI-GENERATED WORKS AND COPYRIGHT OWNERSHIP

Context

- Recently, the issue of copyright infringement in the context of artificial intelligence (AI) has gained considerable attention and sparked essential discussions.

Details

- A prominent case that **exemplifies this intersection involves the Andy Warhol Foundation** and Lynn Goldsmith's photograph of musician Prince.
- The dispute revolves around the question of whether Warhol's use of the **photograph in creating multiple adaptations constitutes fair use or copyright infringement**.

Copyright law	AI-Generated Works
• Copyright law protects **the work of diverse artists, including photographers, as well as provides a set of exclusive rights for artists over their creative output.** • **This includes controlling the manner in which others reproduce or modify their work.**	• Generative AI is the **process of training a machine learning model** with existing content to create new works. • AI technologies **can be used to replicate or mimic existing copyrighted works.** • **The algorithms can analyse and generate**

- **However, these exclusive rights are balanced with the** rights of the users of such work, including other artists **who might want to build on or comment on them, with the help of diverse exceptions under copyright law.**

content that closely resembles protected works, raising questions about the legality and ethical implications of such replication.

- One of the products of this technology is Artificial Intelligence that mimics the human intelligence to perform tasks which a human would have performed by applying his independent mind.

Can AI Art Be Copyrighted?

- It has long been the posture of the U.S. Copyright Office that there is no copyright protection for works created by non-humans, including machines.
  - Therefore, the product of **a generative AI model cannot be copyrighted**.
- The root of this issue lies in the way generative AI systems are trained. Like most other machine learning models, they work by identifying and replicating patterns in data.
  - So, in order to generate an output like a written sentence or picture, it must first learn from the real work of actual humans.
- If an AI image generator produces art that resembles the work of Georgia O'Keefe, for example, that means it had to be trained using the actual art of Georgia O'Keefe.
  - Similarly, for an AI content generator to write in the style of Toni Morrison, it has to be trained with words written by Toni Morrison.
- Legally, these AI systems — including image generators, AI music generators and chatbots like ChatGPT and LaMDA — cannot be considered the author of the material they produce.
  - Their outputs are simply a culmination of human-made work, much of which has been scraped from the internet and is copyright protected in one way or another.

Current legal position of India:

- In India copyright related laws are primarily governed by **The Copyright Act, 1957** which grants exclusive rights to the author over its original work for his/her lifetime and 60 years afterwards.
- **Indian Copyright Act, 1957 and The Patents Act, 1970** provides specific provisions for fair dealing and enumerated exceptions to copyright infringement.
- The use of copyrighted materials for training AI models is considered to be in a legal grey area.
  - As it stands now, copyright laws do not safeguard any creation that is wholly generated by AI, regardless of whether it stemmed from a human-crafted text prompt.
- **The observations and rulings of international and other courts**, such as the recent US Supreme Court decision on copyright and AI, may influence interpretations of fairness in Indian copyright law.
- Indian copyright law and fair use provisions will need to adapt to address the **challenges posed by AI-generated content.**

Way forward

- The role of AI is going **to increase in all sectors in our day to day lives by leap and bounds**. The law is required to regulate its uses.
- In case of intellectual property rights, particularly in **copyright, AIwill continue to play an extremely important role**. The issues of authorship and ownership of AI-generated works in copyright law have forced the international community to think and devise an acceptable solution for all countries.
- There is no foolproof rule to address this issue and every rule has its own flaws. There will be significant ramifications for offering non-human authorship to AI-generated works.

- **Putting the AI-generated works in the public domain** is also not a good idea as it will discourage the AI programmers and companies owning such AI to further invest in the AI domain.
- **The WIPO is working hard to address these issues**. The sui generis system may be a better option or alternatively, some provisions in the copyright legislations of the countries which are specifically drafted for AI and AI-generated works may address this issue.
- **In any case, the AI-generated works should be provided lesser protection** and human creativity should be preferred over machine creativity. A balanced approach is therefore, the need of the hour.

READ: https://www.iasgyan.in/blogs/basics-of-artificial-intelligence

7. 7 NARCO TEST

Context

- Recently Protesting wrestlers at JantarMantar Monday said they were willing to undergo a narco analysis test, provided it was monitored by the Supreme Court.

Details

- It was us who had mentioned it (narco test) a long time ago, we have been saying it for long and we are ready for it," BajrangPunia said at a press conference at JantarMantar.
- "The narco test should take place under Supreme Court monitoring, and the entire country should be able to see it live.

About Narco Test

- **In a 'narco' or narco analysis test, a drug called sodium pentothal** is injected into the body of the accused, which transports them to a hypnotic or sedated state in which their imagination is neutralised.
- **In this hypnotic state, the accused is understood as being incapable of lying** and is expected to divulge information that is true.
    - **Sodium pentothal, or sodium thiopental**, is a **fast-acting, short-duration anaesthetic** used in larger doses to sedate patients during surgery. It belongs to the **barbiturate class of drugs** that act on the central nervous system as depressants.
- Because the drug is believed to weaken the subject's resolve to lie, it is sometimes referred to as a ***"truth serum"***, and is said to have been used by intelligence operatives during World War II.

History and procedure:

- **The term narco-analysis is derived from the Greek word narko** (meaning anaesthesia or Torpor) and is used to describe a diagnostic and **psychotherapeutic technique** that uses psychotropic drugs, particularly barbiturates.
- **According to experts, during the narco test,** the person's inhibitions are lowered by interfering with his or her nervous system at the molecular level.
- In such a sleep-like state, efforts are made to obtain probative truth about the crime. The dose of the injected substance is decided as per the person's sex, age, health, and physical condition.
- The person concerned is then **interrogated by the investigating agencies in the presence of doctors**. The revelations made during this stage are video recorded.
- **The report prepared by the expert is used in the process of collecting evidence**. The procedure is conducted at a government hospital, after a court order permitting the same.

Difference between Polygraph Test and Narco Test:

- However, narco tests must not be confused with polygraph tests, which, although having the same truth-decoding motive, work differently.
- **A polygraph test is carried out on the assumption that physiological responses** triggered when one is lying are different from what they otherwise would be.

- **Rather than injecting drugs into the body**, polygraph tests attach instruments like cardio-cuffs or sensitive electrodes to the suspect and measure variables **such as blood pressure, pulse rate, respiration, change in sweat gland activity, blood flow, etc.**, while the suspect is being questioned.

NARCO TEST EXAMPLES

Narco analysis tests were notably used in the 2002 Gujarat riots case, the Abdul Karim Telgi fake stamp paper scam, the Nithari killings case in 2007, and the 26/11 Mumbai terror attack case on captured terrorist Ajmal Kasab.

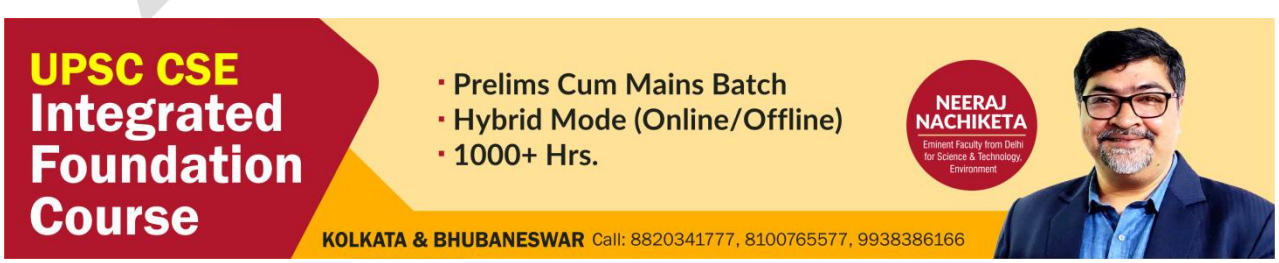
However, it was in 2010 that the Supreme Court ruled on the legality and admissibility of Narco Tests.

Importance of the test

- **In the hypnotic stage**, the person becomes less inhibited and is more likely to divulge information, which would usually not be revealed in the conscious state.
- **The investigating agencies use this test after other evidence do not provide a clear picture of the case**.
- According to norms, the consent of the person is also necessary for being subjected to narco test.
- **The Supreme Court had ruled that narco analysis**, brain mapping and polygraph tests cannot be conducted on any person without his or her consent.
    - The top court had noted in response to petitions questioning the validity of such tests, are illegal and a violation of personal liberty.
- **However, statements made during narco analysis test are not admissible in the court**, except under certain circumstances when the court thinks that the facts and nature of the case permit it.

What is the evidentiary value of such tests?

- While the results of narco-analysis tests are not considered "**confessions**" since those in a drugged-induced **state cannot exercise their choice** in answering questions put to them, the Supreme Court, through its 2010 ruling, clarified that "any information or material that is subsequently discovered with the help of voluntary administered test results can be admitted, in accordance with **Section 27 of the Evidence Act, 1872.**"
- Thus, if an accused reveals the location of, say, a physical piece of evidence (something like a murder weapon) in the course of the narco test and the police later find that specific piece of evidence at that location, the statement of the accused will not be treated as evidence, but the physical evidence will be valid.



7. 8 NATIONAL HEALTH ACCOUNTS ESTIMATES

Context

- Recently, the National Health Accounts Estimates for India (2019-20) are being released.

FACTLY

- Share of Out-of-Pocket Expenditure (OOPE) in Total Health Expenditure declines from 62.6% in 2014-15 to 47.1% in 2019-20
- Government Health Expenditure's share in country's total GDP increases from 1.13% (2014-15) to 1.35% (2019-20)
- Share of Government Health Expenditure in Total Health Expenditure increases from 29% (2014-15) to 41.4% (2019-20)
- Per capita Government spending on healthcare doubles.

Key highlights of the report

Total Health Expenditure (THE):

- The increase in government spending on health has an important implication for the reduction of financial hardship endured by households.
- In the Total Health Expenditure (THE) of the country between **2014-15 and 2019-20, the share of GHE has increased from 29% to 41.4%.**

General Government Expenditure:

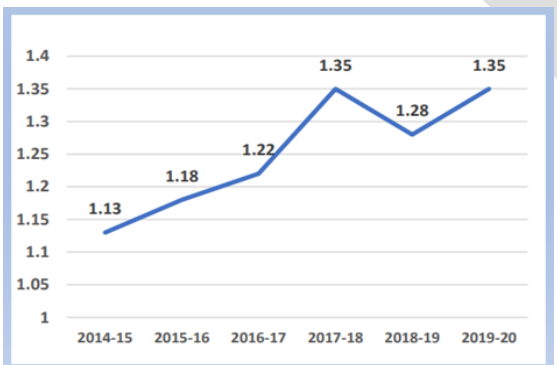


Figure: Government Health Expenditure as % of General Government Expenditure (GGE)

- In General Government Expenditure (GGE), the share of health sector spending has steadily increased from 3.94% to 5.02% between 2014-15 and 2019-20.
- This clearly indicates that healthcare has been the priority for public investment in the country.

Government Health Expenditure (GHE):

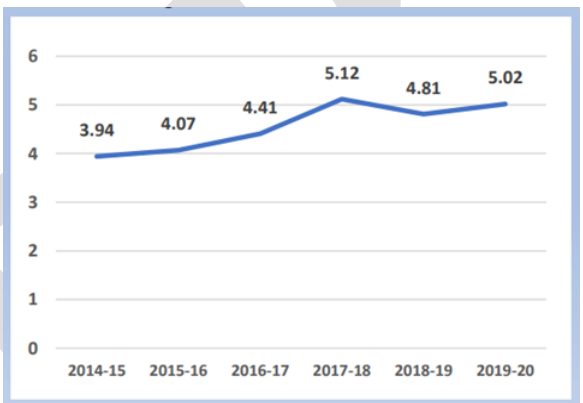


Figure: Government Health Expenditure as % of GDP

- During this period, the share of Government Health Expenditure (GHE) in the overall GDP of the country has increased from 1.13% in 2014-15 to 1.35% in 2019-20.
- In per capita terms, GHE has doubled from Rs. 1,108 to Rs. 2,014 between2014-15 to 2019-20.
- The government spending on health between 2018-19 and 2019-20 increased by 12%, more than double the growth rate between 2017-18 and 2018-19 which was at 5%.

Public spending in Primary Healthcare

- The Report highlights the increased public spending in primary healthcare, which is in line with National Health Policy 2017 which states that two-thirds of public health spending must be in Primary Health systems.
- This is also a result of great developments/initiatives taken at grassroot level such as the opening of over 1.6

lakhAyushman Bharat Health and Wellness Centres (AB-HWCs) which are providing plethora of health services to the people.

Share of Private Health Expenditure

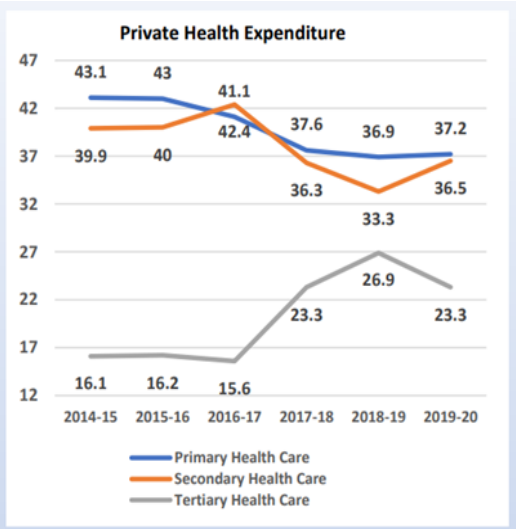


Figure: Share of Private Health Expenditure at various levels (%)

- Private health insurance share is also going up.
- This shows a sign of maturity for a country in terms of the insurance arena as those who can afford will afford it from private players too. This complements the government system of primary, secondary, and tertiary care."

Share of Out-of-Pocket Expenditure:

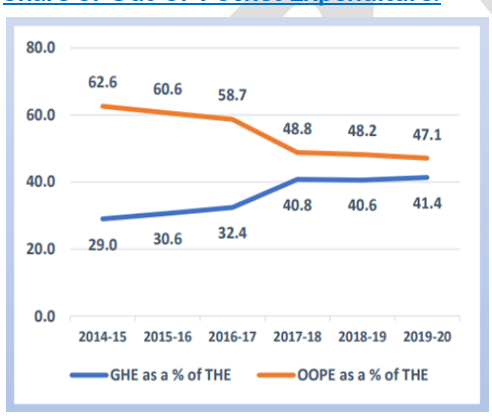


Figure: Government Health Expenditure and Out-of-pocket expenditure as % of Total Health Expenditure (%)

- The share of Out-of-Pocket Expenditure (OOPE) in total Health Expenditure (THE) declined from 62.6% to 47.1%.
- The continuous decline in the OOPE in the overall health spending shows progress towards ensuring financial protection and Universal Health Coverage for citizens.

Share of primary healthcare in Current Government Health Expenditure (CGHE)

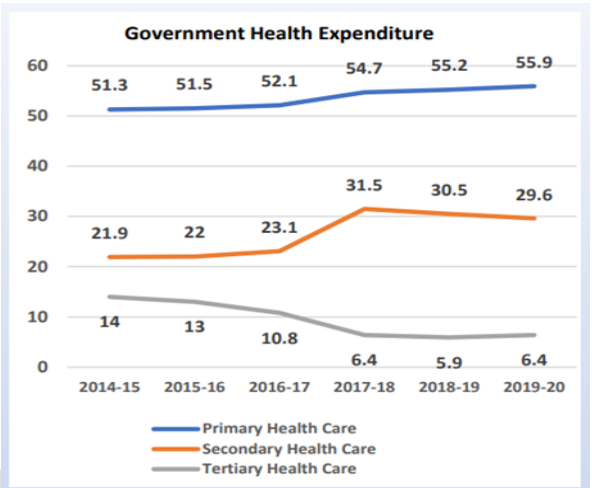


Figure: Share of Primary Health Care in Current Government Health Expenditure (%)

- The share of primary healthcare in Current Government Health Expenditure (CGHE) has increased from 51.3% in 2014-15 to 55.9% in 2019-20.
- The increased focus on primary healthcare reinforces the government's decisions to prioritize primary healthcare in the country.

Social Security Expenditure (SSE)

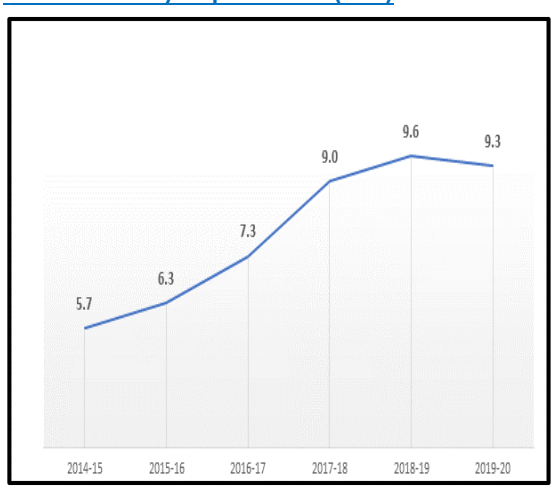


Figure: Social Security Expenditure on Health as % of Total Health Expenditure (%)

- Another positive trend in the country's health financing space is the increase in Social Security Expenditure (SSE) on healthcare. This

increase in social security has a direct impact on reducing out-of-pocket payments.

- A robust social security mechanism ensures that individuals will not face financial hardship and the risk of poverty as a consequence of accessing essential healthcare services.
- The share of SSE on health, which includes government-funded health insurance, medical reimbursement to government employees, and social health insurance programs, has increased from 5.7% in 2014-15 to 9.3% in 2019-20.

Table 1: Key Health Financing Indicators

Indicators	2019-20	2014-15
Total Health Expenditure (THE) Per capita (Rs.) at current prices	4863	3826
Government Health Expenditure (GHE) percent of THE	41.4	29
Out of Pocket Expenditure (OOPE) as percent of THE	47.1	62.6
Social Security Expenditure on health as percent of THE	9.3	5.7
Private Health Insurance Expenditures as percent of THE	7	3.7
External/ Donor Funding for health as per cent of THE	0.5	0.7
Union Government as percent of Current Health Expenditure (CHE)	12.14	8.2
State Government as percent of CHE	20.03	13.3
Local Bodies (Urban and Rural) as per cent of CHE	0.99	0.7
OOPE as percent of CHE	52	67
Households (HH) Health Expenditure as per cent of CHE	59.2	71
Others (Enterprises + NGOs + Donors) as per cent of CHE	7.6	6.9

National Health Account (NHA) estimates for India

- The National Health Account (NHA) **estimates for India 2019-20** is the **seventh consecutive** NHA estimates report prepared by NHSRC, designated as **National Health Accounts Technical Secretariat (NHATS) in 2014** by **the Union Health Ministry.**
- The NHA estimates are prepared by using an accounting framework based on the internationally accepted standard of System of Health Accounts, 2011, developed by the **World Health Organization (WHO).**
- With the present estimate of NHA, India now has a continuous series of NHA estimates for the country, from 2013-14 to 2019-20.
- These estimates are not only comparable internationally but also enable the policymakers to monitor the progress in different health financing indicators of the country.

Government initiatives related to healthcare in India

The National Health Mission (NHM)

- It is a **Centrally Sponsored Scheme** launched in **2005**. It envisages achievement of universal access to equitable, affordable & quality health care services that are accountable and responsive to people's needs.
- The **PradhanMantri National Dialysis Programme (PMNDP)** was rolled out on 07th April 2016 as part of the National Health Mission (NHM) for the provision of free dialysis services to the poor. The programme has two components namely **Hemodialysis (HD) services &Peritoneal dialysis (PD) services**.

The Ayushman Bharat Digital Mission (ABDM)

- It aims to develop the backbone necessary to support the **integrated digital health infrastructure** of the country. It will **bridge the existing gap among** different stakeholders of the Healthcare ecosystem through digital highways.

PradhanMantri Jan ArogyaYojana (PMJAY)

- The scheme was launched in **September 2018 and** recommended by the National Health Policy 2017, to achieve the vision of **Universal Health Coverage (UHC).**

JananiShishuSurakshaKaryakram (JSSK)

- The scheme is to **benefit pregnant women** who access Government health facilities for their delivery.

7. 9 PSYCHEDELIC SUBSTANCES

Context

- Psychedelic drugs, banned in India under the Narcotic Drugs and Psychotropic Substances Act, are emerging in research as promising ways to treat treatment-resistant depression and post-traumatic stress disorder.

Details

ABOUT	• Psychedelics **are a** group of drugs **that alter perception, mood, and thought processing while a person is still clearly conscious.** • **Psychedelics are non-addictive and non-toxic.** • **Compared to illicit drugs, psychedelics cause much less harm to the end user.**
EXAMPLES	• The two most commonly used psychedelics are d-lysergic acid diethylamide (LSD) and psilocybin. • **Less common ones include mescaline**, found in the **North Americanpeyotecactus (Lophophorawilliamsii),** and **N, N-dimethyltryptamine**, the principal component of the **South American ceremonial sacrament ayahuasca**.
REGULATION	• **In India, the Narcotic Drugs and Psychotropic Substances Act 1985prohibits** the use of psychedelic substances. • **Ketamine**, a dissociative anaesthetic with psychedelic properties, is used under **strict medical supervision**, for anaesthesia and to treat treatment-resistant depression.

History of psychedelics drugs

- **A psychiatrist named Humphrey Osmond first** used the term '**psychedelic'in 1957**, to denote the therapeutic tendency of these drugs to 'unmask' repressed elements of the psyche.
  - The word is derived from the **Greek words psyche, meaning 'mind', and deloun**, meaning **'to manifest'.**
- **Humans have used psilocybin and mescaline** for ceremonial, healing, and spiritual rituals for millennia. Temples built for mushroom 'deities' in indigenous cultures **in Mexico and Guatemala date back to 7000 BC.**
- **Records of the Greek 'Eleusinian Mysteries'** indicate that psychedelics were used in ceremonial rituals.
- The modern-day use of psychedelics is commonly associated with the German chemist **Arthur Heffter isolating mescaline from the peyote cactus in 1897.**
- In 1938, while investigating compounds related to ergotamine (one of the ergot alkaloids), the Swiss chemist **Albert Hofmann first synthesised LSD**.
- **Ergotamine** is produced by the **parasitic rye fungus Clavicepspurpurea**. It was implicated in a mass-poisoning outbreak, believed to be from consuming spoiled rye, in the Middle Ages.
  - These outbreaks were **known as "IgnisSacer" and "St. Anthony's fire",** referring to the enduring effects of ergot poisoning.

- **The animal testing of LSD was unremarkable**. But when Hofmann accidentally contaminated himself with a small dose of LSD, he experienced what was likely the **world's first 'acid trip'.**

How these drugs work in a body?

- They work by **affecting thebrain's neurotransmitter systems**, particularly the serotonin system. Serotonin is a neurotransmitter that is involved in the regulation of mood, cognition, perception, and other physiological processes.
- **Psychedelics bind to serotonin receptors in the brain**, which can lead to changes in perception, thought, and mood.
- Specifically, psychedelics are believed to **activate the 5-HT2A receptor subtype**, which is involved in modulating sensory perception, emotion, and thought processes.
- **Modern neuroimaging suggests** that psychedelics are neither stimulants nor depressants of brain activity. Instead, they increase the cross-talk between different brain networks, and this correlates with the subjective effects of psychedelics.

Issues of Psychedelic Substances

- **Psychedelic-induced psychosis** can also persist in some people. These individuals can experience ongoing mental health issues, **such as paranoia, altered mood, and visual disturbances**.
- **Synthetic psychedelics (such as 25I-NBOMe**) have been associated with acute cardiac, central nervous system, and limb ischaemia, as well as serotonin syndrome.
- **Potential health risks of these substances** include the precipitation of psychotic breaks in patients with **psychotic disorders** or a predisposition to these disorders.
- A further risk associated with psychedelic drugs is **Hallucinogen Persisting Perception Disorder (HPPD), sometimes known as "flashbacks,"** although HPPD is more uncommon and more clinically severe than the flashbacks or visual distortions sometimes described in the days following illicit use of psychedelics.

Way forward

- **The education curriculum** should include topics on drug addiction, its impact and also on de-addiction.
- **Enhancing skills** of care providers.
- **Funding for evidence-based** interventions.
- **Developing programmes** for vulnerable groups like youth, street children, women, prisons, etc.
- **Article 47 of the Directive Principles of State Policy of the Constitution of India** directs the state to improve public health and endeavour to bring about the prohibition of the consumption of intoxicating drinks and drugs which are injurious to health.
- **The stigma associated with drug taking needs to be reduced**.
    - Society needs to understand that drug addicts are victims and not criminals.
    - Proper Counselling is another alternative.

Narcotic Drugs and Psychotropic Substances Act, 1985

The Narcotic Drugs and Psychotropic Substances Act, or NDPS Act forbids the manufacture, possession, use, sale, purchase, transportation, storage, and/or transportation of any narcotic drug or psychotropic substance.

The Act applies all across India, as well as to all Indian nationals living abroad and to anybody travelling on ships or aircraft with an Indian registration.

The Act is intended to meet India's commitments under the Single Convention on Narcotic Drugs, Convention on Psychotropic Substances, and United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.

Government initiatives in India

- The Union Ministry of Home Affairs has launched the **SIMS (Seizure Information Management System) Portal for the digitization of pan-India drug seizure data.**
- **The National Fund for Control of Drug Abuse** was constituted to meet the expenditure incurred in connection with combating illicit traffic in **Narcotic Drugs; rehabilitating addicts, educating the public against drug abuse, etc.**
- **Project Sunrise** was launched by the **Ministry of Health and Family Welfare** to tackle the rising HIV prevalence in north-eastern states in India, especially among people injecting drugs.
- 'NashaMukt Bharat' or Drug-Free India Campaign with a focus on community outreach programs.
- **India is a signatory of the following international treaties and conventions;**
  - United Nations (UN) Convention on Narcotic Drugs (1961).
  - UN Convention on Psychotropic Substances (1971).
  - UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988).
  - UN Convention against Transnational Organized Crime (UNTOC) 2000.

7. 10 DRUG RECALL

Context

- A pharmaceutical company in India has mistakenly shipped a mislabeled batch of drugs to the market, which has drawn attention to the issue of substandard drugs in circulation and the need for a drug recall law in India.

About Drug Recall

- A drug recall is when a medication that is available either by prescription or over the counter is taken off the market due to its negative or harmful effects.
- This process is carried out to correct or remove a drug product that violates the laws and regulations that govern the safety, efficacy, or quality of a drug.
- Drug recalls are typically initiated when a product is found to be flawed, contaminated, mislabeled, or poses a risk to the health and safety of individuals.
- It is done to protect the general public from harm by removing the affected product from the market and offering compensation or a refund to those who have already purchased the product.

Drugs regulation in India

- The regulation of drugs in India is governed by the Drugs and Cosmetics Act, 1940 and Rules 1945. This act assigns various responsibilities to both central and state regulators.
- **The Central Drugs Standard Control Organisation (CDSCO)** is responsible for prescribing standards and measures to ensure the safety, efficacy, and quality of drugs, cosmetics, diagnostics, and devices in the country.
- Additionally, the CDSCO regulates the market authorization of new drugs and sets clinical trial standards.
- **The Drugs Controller General of India (DCGI)** is the head of the CDSCO and is accountable for approving licenses for specific categories of drugs such as blood and blood products, IV fluids, vaccines, and sera in India.
- The DCGI also establishes standards for drug **manufacturing, sales, importation, and distribution throughout India.**

India needs a national Drug Recall Law

- India needs a national Drug Recall Law that can ensure the withdrawal of an entire batch of substandard drugs from the market as soon as it is identified as Not of Standard Quality (NSQ).
- Currently, there is no such law in place, and state drug regulators can only order the withdrawal of a specific batch from their state.

- This poses a problem in cases where the same batch is distributed across multiple states.

- There is a need for a central drug regulator that can execute and coordinate national drug recalls. Despite identifying this issue as a major concern back in 1976, India still lacks a national law for drug recalls.
- As a result, even after the government declares a drug to be NSQ, there is no system in place to withdraw batches of drugs from across the country.

Concerns

- India lacks regulatory infrastructure for substandard drugs due to various factors.
- Firstly, the Drug Regulation Section of the government lacks expertise and is apathetic towards complex drug regulatory issues, prioritizing the growth of the pharmaceutical industry over public health.
- India has a highly fragmented regulatory structure, with each state having its own drug regulator, but drugs manufactured in one state can be sold in all states without any barriers.
- Both the pharmaceutical industry and state drug regulators have opposed greater centralization of regulatory powers.
- However, this lack of centralization can result in adverse effects for patients in other states due to the incompetence of a regulator in just one state, with citizens having no means to demand accountability.

Way forwad

A national drug recall law

- It is crucial for India to have a national drug recall law to guarantee that once a drug is known to be Not of Standard Quality (NSQ), the entire batch is withdrawn from the market.

A central drug regulator

- There needs to be a central drug regulator who can execute and coordinate national recall.

Inspections of manufacturing facilities

- Drug inspectors are required to carry out inspections of manufacturing facilities on an annual basis to ensure compliance with the **Good Manufacturing Practices (GMP) code**.
- It is possible that in many states, there is a lack of capacity and training to do so.
- But the larger problem, is a reluctance to actually enforce the GMP standards because it would put several SME pharma companies out of business.

Health Activism

- As with any other aspect of Indian society, activism can help move the needle on any policy issues.
- Health activists need to accept there is a problem with drug regulation and ask for systemic reform.
- Right now, there appears to be a reluctance to even accept there is a problem with drug quality in India.

READ*: *https://www.iasgyan.in/daily-current-affairs/drug-recall-law-in-india

Central Drugs Standard Control Organisation (CDSCO)

- In 2012, after a report by the Department Related Parliamentary Standing Committee on Health & Family Welfare raised the issue of recalls, among other issues, the Central Drugs Standard Control Organisation (CDSCO) proposed a set of draft recall guidelines – except the national regulator lacks the power to convert guidelines into a binding law.
- Only the Ministry of Health or, more importantly, the Drug Regulation Section of the Ministry, can initiate the process to make binding rules or legislation.
- The then Drug Controller General of India (DCGI) had announced that the guidelines would become binding law in a few months, but that never happened. In any event, the guidelines were not very thorough.

7. 11 STATUS OF MATERNAL AND INFANT HEALTH

Context

- India tops the list of 10 countries which bear 60% of global maternal deaths, stillbirths &new-born deaths burden.

Details

- Despite over 4.5 million women and babies dying every year during pregnancy, childbirth or the first weeks after birth, global progress on mitigating this has halted since 2015, revealed a new report by the United Nations (UN).
- Stagnating investments and little political intent, augmented by the COVID-19 pandemic, rising poverty and worsening humanitarian crises, have compounded an already precarious situation.
- The report on improving maternal and newborn health and survival and reducing stillbirth placed India at the top, accounting for 17 per cent of global maternal deaths, stillbirths and neonatal births (788,000 total deaths).

Key findings of the report

- The report highlights that India is at the forefront of the global burden of maternal deaths, stillbirths, and new-born deaths, representing 17% of the total.
- Following India, countries with the highest number of absolute maternal and neonatal deaths and stillbirths in 2020 are Nigeria, Pakistan, Democratic Republic of Congo, Ethiopia, Bangladesh, China, Indonesia, Afghanistan and Tanzania.
- The key findings of the report revealed how gains made between 2000 and 2010 were faster than they have been in the years since 2010 and how it should be in the next decade to meet global targets.
- According to the report, over 5 million women and babies die every year during pregnancy, childbirth or the first weeks after birth. This is equivalent to one death happening every seven seconds.

Maternal mortality in India

- **Maternal mortality is the maternal death of a woman during pregnancy or after pregnancy, including post-abortion or post-birth periods.**
- **Different countries and cultures have different rates and causes of maternal death.**
- **Within India, reasons vary from healthcare access between regions and socioeconomic factors, accordingly, there is also variation in maternal deaths for various states, regions, and demographics of women.**

Neonatal Mortality Rate (NMR)

- **NMR records a similar trend; a 3.2% reduction between 2000 and 2009, 2.2% reduction between 2010 and 2021.**
- **Neonatal mortality rate refers to the number of deaths of infants within the first 28 days of life per 1,000 live births.**
- **NMR needs to be reduced by another 7.2% between 2022 and 2030 to meet the global target of ending newborn mortality.**

Challenges

- The report highlights that the COVID-19 pandemic, rising poverty, and worsening humanitarian crises have intensified pressures on stretched health systems.
- One in 10 countries (of more than 100 surveyed) reports having sufficient funds to implement their current plans.

- Around 25 per cent of countries still report ongoing disruptions to vital pregnancy and postnatal care and services for sick children.
- Inequitable access to quality maternal and newborn health services, especially for the poorest and most marginalized populations, such as tribal communities and urban slums.
- Low coverage of essential interventions, such as early and exclusive breastfeeding, skilled birth attendance, emergency obstetric care, and postnatal care.

Causes of maternal and newborn deaths

- **Haemorrhage:** Excessive bleeding during or after childbirth, which can lead to shock and death.
- **Infection:** Bacterial or viral infections that affect the mother or the baby, such as sepsis, tetanus, pneumonia, meningitis, etc.
- **Pre-eclampsia and eclampsia:** A condition characterized by high blood pressure and protein in the urine during pregnancy, which can cause seizures and stroke in severe cases.
- **Obstructed labour:** A condition where the baby cannot pass through the birth canal due to its size, position, or shape, or due to a problem with the mother's pelvis or uterus.
- **Complications of unsafe abortion:** Injuries or infections caused by unsafe methods or untrained providers of induced abortion.
- **Birth asphyxia:** A condition where the baby does not breathe adequately at birth, leading to brain damage or death.

Steps taken by Government

- **Janani Suraksha Yojana (JSY)** implemented under the **National Health Mission (NHM)**, is a safe motherhood intervention promoting institutional delivery among pregnant women, especially those with weak socio-economic status i.e. women from Scheduled Castes, Scheduled Tribes and Below Poverty Line (BPL) households.
- **PM Matru Vandana Yojana (PMMVY)** Providing Cash incentives for improved health and nutrition to Pregnant and nursing mothers.
- **Scheme for Adolescent Girls** aims at girls in the age group 11-18, to empower and improve their social status through nutrition, life skills, home skills and vocational training.
- **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)** provides pregnant women free of cost assured and quality Antenatal Care on the 9th day of every month.
- **Mahila Swadhar Greh** provides relief and rehabilitation to destitute women and women in distress.
- **Ujjawala scheme**, a Comprehensive Scheme for the prevention of trafficking and rescue, rehabilitation, reintegration and repatriation of victims of trafficking for commercial sexual exploitation.
- **One-Stop Center (OSC)** to facilitate access to an integrated range of services including medical aid, police assistance, legal aid/ case management, psychosocial counselling and temporary support services to women affected by violence.

Stillbirth Rate (SBR)

- Between 2000 and 2009, the SBR was reduced by 2.3% and by 1.8% between 2010 and 2021.
- The SBR is defined as the number of babies born with no signs of life at 28 weeks or more of gestation, per 1,000 total births.
- A 5.2% reduction is required between 2022 and 2030 to meet global targets of less than 12 stillbirths per 1,000 live births.

7. 12 HYSTERECTOMY

Context

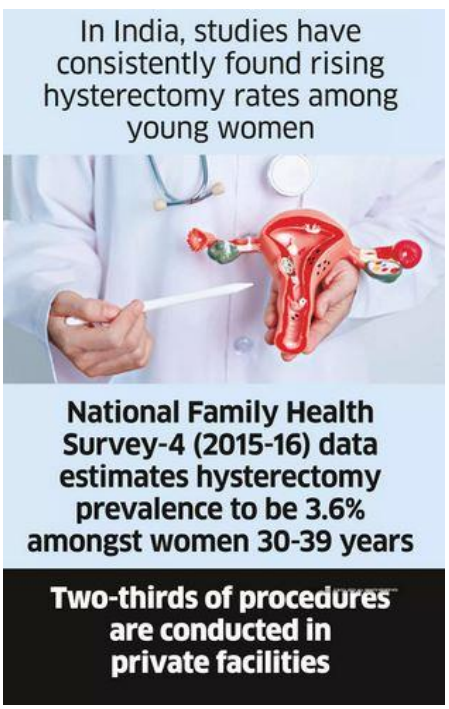
- States and UTs were instructed by the Supreme Court to implement health guidelines formulated by the Centre to monitor "unnecessary" hysterectomies within three months.

Details of Hysterectomy

About	• **It is a** surgical procedure to remove the uterus**, and sometimes surrounding organs and tissues.** • **When only the uterus is removed, it is called a** partial hysterectomy**. When the uterus and cervix are removed, it is called a total hysterectomy.** • **When the uterus, cervix, part of the vagina, and a wide area of ligaments and tissues around these organs are removed, it is called a** radical hysterectomy**.** • **These procedures may be done through the vagina (with no incisions in the abdomen) or through an incision (cut) in the abdomen. (Source: National Cancer Institute)**
Types	• **Total hysterectomy** – the womb and cervix (neck of the womb) are removed; this is the most commonly performed operation • **Subtotal hysterectomy** – the main body of the womb is removed, leaving the cervix in place • **Total hysterectomy with bilateral salpingo-oophorectomy** – the womb, cervix, fallopian tubes (salpingectomy) and ovaries (oophorectomy) are removed • **Radical hysterectomy** – the womb and surrounding tissues are removed, including the fallopian tubes, part of the vagina, ovaries, lymph glands and fatty tissue

Prevalence of hysterectomy in India

- In India, the prevalence of hysterectomy operation was 3.2%, the highest in Andhra Pradesh (8.9%) and the lowest in Assam (0.9%).
- Rural India had higher a prevalence than urban India. The majority of women underwent the operation in private hospitals. Hysterectomy prevalence ranged between 3% and 5% in 126 districts, 5% and 7% in 47 districts and more than 7% in 26 districts.
- Moran's Index (0.58) indicated the positive autocorrelation for the prevalence of hysterectomy among districts; a total of 202 districts had significant neighbourhood association.
- Variation in the prevalence of hysterectomy was attributed to the factors at the primary sampling unit, district and state level. Age, parity, wealth and insurance were positively associated with the prevalence of hysterectomy, whereas education and sterilization was negatively associated.



Issues associated with hysterectomy in India

Increasing rate of hysterectomy:

- The recent Supreme Court judgment in Dr. Narendra Gupta vs Union of India, 2023 highlighted that in developed countries, hysterectomies are typically performed on premenopausal women aged 45 and above.
- However, community-based studies in India have shown an increasing number of hysterectomies among younger women, ranging from 28 to 36 years old.

National Family Health Survey (NFHS) -5 Data:

- According to the most recent **National Family Health Survey (NFHS) -5 empirical data, 3% of women aged** 15-49 have had a hysterectomy.
- The prevalence of hysterectomy is the highest in Andhra Pradesh (9%), followed by Telangana (8%), and lowest in Sikkim (0.8%) and Meghalaya (0.7%) among women aged 15–49.
- The prevalence of hysterectomy was highest in Southern region, i.e., 4.2%, which was also greater than the national prevalence, followed by Eastern part of India (3.8%).
- On the other hand, the lowest prevalence was observed in the Northeast region, i.e., only 1.2%

Unnecessary Hysterectomies:

- A public interest litigation (PIL) filed in 2013 highlighted the issue of "unnecessary hysterectomies".
- The PIL revealed that in the states of Bihar, Chhattisgarh, and Rajasthan, women were subjected to hysterectomies that were deemed unnecessary, endangering their health.
    - Private hospitals were found to be involved in performing these unnecessary hysterectomies. More than two-thirds (70%) of women who have undergone a hysterectomy had the operation in a private health facility.
- Misuse of the procedure was also observed, with healthcare institutions exploiting it to claim higher insurance fees under various government healthcare schemes.

Measures to be taken

- The recommendation to declare the right to health a fundamental right, if implemented, will strengthen people's access. However, the latter recommendation to shift health to the Concurrent List will lead to a constitutional conundrum on whether the centralisation of public health will be helpful in the context of Indian cooperative federalism.
- The recent judgement also noted that the guidelines indicate that while in developed countries hysterectomies are typically conducted among premenopausal women above the age of 45 years, in India, community-based studies have consistently found rising hysterectomy rates among young women, ranging from 28 to 36 years old.
- The right to health is an intrinsic element of the right to life under Article 21 of the Constitution. Life, to be enjoyed in all its diverse elements, must be based on robust conditions of health. There has been a serious violation of the fundamental rights of the women who underwent unnecessary hysterectomies.

Way forward

- The Health Ministry has closely monitored the issue of hysterectomies and requested States to share data on hysterectomy cases before and after the implementation of guidelines.
- Compulsory audits for all hysterectomies are advised, similar to those conducted for maternal mortality, in both public and private healthcare institutions.
- In 2022, the Health Ministry issued guidelines to prevent unnecessary hysterectomies and urged States to comply with them.

Conclusion

- Hysterectomy operation in India presented the geographical, socio-economic, demographic and medical phenomenon. The high prevalence of hysterectomy in many parts of the country suggested conducting in-depth studies, considering the life cycle

approach and providing counselling and education to women about their reproductive rights and informed choice. Surveillance and medical audits and promoting the judicial use of health insurance can be of great help.

7. 13 ARTIFICIAL SWEETENERS

Context

- Artificial sweeteners have gained popularity among calorie-conscious individuals seeking low-calorie options. However, recent studies have raised concerns about their long-term effectiveness for weight loss and potential health risks.

Details

- The World Health Organisation on Monday (May 15) recommended against using artificial sweeteners to achieve weight loss and prevent lifestyle diseases such as diabetes.
- The report emphasised that while there was a need to cut intake of sugar, it should not be replaced by artificial sweeteners.

Key findings of the WHO report

- As per the report, while there could be some weight-loss and reduction in Body Mass Index in the short term as the artificial sweeteners bring down the calories consumed, but in the long run they have been linked to weight gain.
- The sweeteners have also linked to an increased risk of Type-2 diabetes, cardiovascular diseases, and mortality in the long run.
- Some low certainty data also linked the use of such artificial sweeteners to bladder cancer and preterm birth when consumed by pregnant women.
- The meta-analysis found that higher intake of NSS was associated with a 23% increase in the risk of type-2 diabetes when consumed in the form of beverages and 34% when added to foods.
- Higher intake of these sweeteners was also linked with 32% increase in the risk of cardio-vascular disease – including a 19% increase in risk for stroke – and 13% increase in the risk for hypertension.
- It was also linked with a 25% increase in the risk for pre-term birth. "Long-term adverse effects in the form of increased risk of death and disease offset any potential short-term health benefit resulting from the relatively small reduction in body weight and BMI observed in randomized controlled trials.

WHO recommendations

- The WHO has made these recommendations for everyone other than those who are already diabetic. "Replacing free sugars with non-sugar sweeteners does not help with weight control in the long term.
- People need to consider other ways to reduce free sugars intake, such as consuming food with naturally occurring sugars like fruit, or unsweetened food and beverages,"

About Artificial Sweeteners

- Artificial sweeteners are those that sweeten with minimal or no carbohydrate or energy. They can increase the palatability of fruits, vegetables, and whole-grain breads/cereals and thus have the potential to increase the nutrient density of the diet while promoting lower energy intakes.
- They are regulated by the Food and Drug Administration as food additives or generally recognized as safe.

Some examples of Artificial sweeteners:

- **Aspartame**. Sold under the brand names NutraSweet, Equal, or Sugar Twin, aspartame is 200 times sweeter than table sugar.
- **Acesulfame potassium**. Also known as acesulfame K, it's 200 times sweeter than table sugar. It's suited for cooking and baking.
- **Advantame**. This sweetener is 20,000 times sweeter than table sugar and suited for cooking and baking.
- **Aspartame-acesulfame salt**. It's 350 times sweeter than table sugar.
- **Cyclamate**. Cyclamate, which is 50 times sweeter than table sugar, was used for cooking and baking. However, it has been banned in the United States since 1970.
- **Neohesperidin**. It's 340 times sweeter than table sugar and suited for cooking, baking, and mixing with acidic foods.
- **Sucralose**. Sucralose, which is 600 times sweeter table sugar, is suited for cooking, baking, and mixing with acidic foods.

✓Benefits

- Artificial sweeteners offer benefits for weight management, diabetes control, tooth decay prevention, and provide safe options for individuals with phenylketonuria (PKU), a genetic disorder, due to their low or zero-calorie content, minimal impact on blood sugar levels, non-fermentable nature, and absence of phenylalanine.

✕Negative impact

- Controversial Health Effects:
- Some studies suggest potential negative health effects of artificial sweeteners, such as an increased risk of metabolic disorders, and disrupted gut microbiota. However, scientific evidence remains inconclusive.
- Digestive Issues:
- Some people may experience digestive discomfort, such as bloating, gas, or diarrhoea, after consuming products containing artificial sweeteners.

Conclusion

- **Cardiovascular disease builds over time**, and heart disease is the leading cause of death globally. The study above highlights the dangers of artificial sweeteners in increasing the risk of cardiovascular events by correlating them with metabolic studies of such chemicals in circulating blood.
- Sweeteners like erythritol have rapidly increased in popularity in recent years but there needs to be more in-depth research into their long-term effects.

7. 14 PANGENOME MAP

Context

- A new study published in the May 10 issue of the *Nature* journal describes a pangenome reference map, built using genomes from 47 anonymous individuals (19 men and 28 women), mainly from Africa but also from the Caribbean, Americas, East Asia, and Europe.

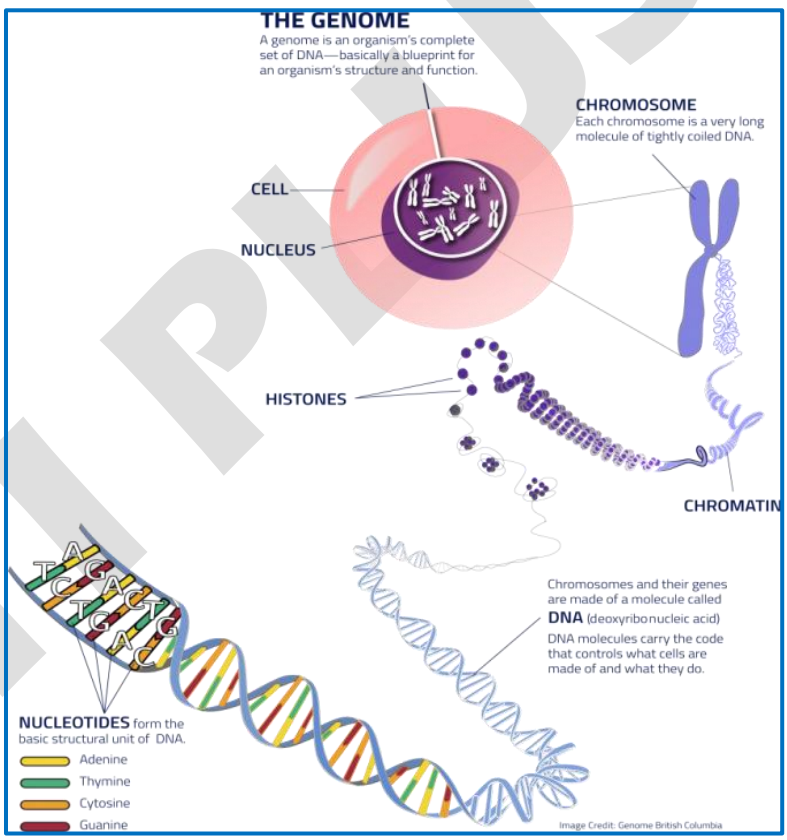
Details of Genome

About	• The genome is the blueprint of life, **a collection of all the genes and the regions between the genes contained in our 23 pairs of chromosomes.** • Each chromosome is a contiguous stretch of DNA string. **In other words, our genome consists of 23 different strings, each composed of millions of individual building blocks called nucleotides or bases.**
Types	• **The four types of building blocks (A, T, G and C)** are arranged and repeated millions of

	times in different combinations to make all of our 23 chromosomes.
Usage	• Genome sequencing is the method used to **determine the precise order of the four letters** and how they are arranged in chromosomes. • Sequencing individual genomes **helps us understand human diversity at the genetic level** and how prone we are to certain diseases.

- The genome is **an identity card like Aadhaar**. As each of our Aadhar card is unique, so is our genome.
- **As sequencing individual genomes of all humans is expensive**, we do not yet have all our genome identity cards. To circumvent this, one can have a collective identity card.
  For example, we can have a single genome identity card for everyone living in a region.

What is a reference genome?



- **When genomes are newly sequenced, they are compared to a reference map called a reference genome**. This helps us to understand the regions of differences between the newly sequenced genome and the reference genome.
- **One of this century's scientific breakthroughs** was the making of the **first reference genome in 2001**. It helped scientists discover thousands of genes linked to various diseases; better understand diseases like cancer at the genetic level; and design novel diagnostic tests.
- Although a remarkable feat, the reference genome of 2001 was 92% complete and contained many gaps and errors. **Additionally, it was not representative of all human beings** as it was built using mostly the genome of a single individual of mixed African and European ancestry.
- Since then, the **reference genome map has been refined and improved** to have complete end-to-end sequences of all the 23 human chromosomes.
- Although **complete and error-free, the finished reference genome map does not represent all of human diversity.** The new study published in Nature changes this.
- The main paper and the accompanying articles published in the same journal and **Nature Biotechnology** describe the making of the pangenome map, the genetic diversity among the 47 individuals, and the computational methods developed to build the map and represent differences in those genomes.

What is a pangenome map?

- Unlike the earlier reference genome, which is a linear sequence, the pangenome is a graph. **The graph of each chromosome is like a bamboo stem** with nodes where a stretch of sequences of all 47 individuals

converge (similar), and with **internodes of varying lengths representing genetic variations** among those individuals from different ancestries.

- **To create complete and contiguous chromosome maps** in the pangenome project, the researchers used long-read DNA sequencing technologies, which produce strings of contiguous DNA strands of tens of thousands of nucleotides long.
- **Using longer reads helps assemble the sequences with minimum errors** and read through the repetitive regions of the chromosomes which are hard to sequence with short-read technologies used earlier.

Why is a pangenome map important?

- Although any two humans are **more than 99% similar in their DNA**, there is still about a 0.4% difference between any two individuals.
- This may be a small percentage, but considering that the human genome consists of **3.2 billion individual nucleotides**, the difference between any two individuals is a whopping 12.8 million nucleotides.
- **A complete and error-free human pangenome map will help us understand those differences and explain human diversity better**.
- It will also help us understand genetic variants in some populations, which result in underlying health conditions.
- The pangenome reference map has **added nearly 119 million new letters** to the existing genome map and has already aided the **discovery of 150 new genes linked to autism**.
- Although the project is a leap forward, genomes from many populations are still not a part of it.
    - **For example, genomes from more people from Africa**, the Indian sub-continent, indigenous groups in **Asia and Oceania, and West Asian regions** are not represented in the current version of the pangenome map.

Conclusion

- Even though the current map **does not contain genome sequences from Indians**, it will help map Indian genomes better against the error-free and complete reference genomes known so far.
- Future pangenome maps that **include high-quality genomes from Indians,** including from many endogamous and isolated populations within the country, will shed light on disease prevalence, help discover new genes for rare diseases, design better diagnostic methods, and help discover novel drugs against those diseases.

7. 15 HEALTH FOR ALL

Context

- Recently WHO has launched first-ever roadmap to link health with sustainable economic growth.

Details

- The **World Health Organization (WHO)** launched a roadmap to focus on the links between health and sustainable, inclusive and innovation-led economic growth during the ongoing**76th World Health Assembly (WHA).**
- ***Health for All: Transforming economies to deliver what matters report was launched May 23, 2023*** by the WHO Council on the Economics of Health for All, which was formed two years ago in November 2020 in response to the COVID-19 pandemic.

Key findings of the WHO report

- The Council has put forward a bold new narrative grounded in new economic wisdom to reorient economies to deliver health for all across four interrelated themes:

- **Value** - valuing and measuring what matters through new economic metrics;
- **Finance** - how to finance health for all as a long-term investment, not a short-term cost;
- **Innovation** - how to advance health innovation for the common good;
- **Capacity** - how to strengthen dynamic public sector capacity to achieve health for all.

Key recommendations include

- **We need to value and measure the things that truly matter** - human and planetary flourishing - rather than pursuing economic growth and GDP maximization regardless of the consequences.
  - To achieve health for all, governments must rethink value and reshape and redirect the economy based on social and planetary well-being, guided by new metrics.
- **A fundamental overhaul of national and international systems for financing health is needed**, so that spending on health is treated as a long-term investment. Delivering Health for All will require both more money, and higher quality financing.
- **Innovation requires collective intelligence**—it is never the fruit of just one company or government agency. But unless innovation is governed for the common good, many people remain excluded from its benefits.
  - A new end-to-end health innovation ecosystem that prioritises the common good is needed.
- **As the COVID-19 pandemic has made clear,** the quality and capacity of government matters. Effective governments are not the smallest, but those that are well-designed and properly resourced, both financially and in terms of their people and infrastructure.
  - **Re-investing in government capacity is crucial to delivering Health for All.**

Suggestions of the report

- The report also provides suggestions on what can be done in practice to implement the changes needed to reorient measures of economic value, the financing of health, innovation and building public sector capacity in the service of health for all.
- <u>Among these, the report mentions several examples, including:</u>
  - **The mRNA technology hub facility in South Africa:** a values-driven system that tries to get the innovation, financing and capacity right ex-ante;
  - **Brazil's public investment in a health-industrial complex** that serves the common good;
  - **Regional development banks as enablers of change in the Global South**;
  - **The Wellbeing Economy Alliance** – an alliance of several governments and over 600 other organizations working together to transform economic systems in the service of life;
  - **Approaches to financing national action plans (NAPs)** on antimicrobial resistance through multi sector joint budgeting, given that most NAPs remain unfunded.

Conclusion

- The recommendations included in the report could change the way countries view and finance health.
- WHO calls on **policy-makers, civil society, and members of the health and economics communities** to give full consideration to the recommendations and use them as a compass to develop new economic policies and structures that can move us along the road to making health for all a reality.

7. 16 STATE HEALTH INDEX

Context

- The annual health index, which measures the performance of states and UTs on a "weighted composite score incorporating 24 health performance indicators", was launched by the NITI Aayog in 2017.

Details

- The three southern states of Kerala, Tamil Nadu and Telangana emerged as the top performers among the 'larger states' in the NITI Aayog's annual 'health index' for the Covid year of 2020-21.

Key findings of the Index

- Although the 2020-21 (Fifth) Health Index Report is to be released by December 2022, it is yet to be made public.
- It is now understood that the **NITI Aayog has shared the report with the Health Ministry.**
- When contacted, a NITI Aayog official said the report would be released in due course.
- The Health Index rates states and Union Territories on two parameters – incremental performance (year-on-year improvement) and overall performance.
- **States and Union Territories – categorized separately as 'Large States', 'Small States' and Union Territories – are then ranked based** on their scores.
- Among the 19 'large states', Kerala, Tamil Nadu and Telangana are in the top three positions, ranking first, second and third respectively in terms of overall performance.
- **Bihar (19th), Uttar Pradesh (18th) and Madhya Pradesh (17th) are at the bottom of the list**.
- In terms of incremental performance, Rajasthan, Uttarakhand and Odisha have grown as performers in 2020-21 over their performance in 2019-20.
- **Among the eight smaller states**, **Tripura recorded the best overall performance**, followed by Sikkim and Goa; Arunachal Pradesh (6th), Nagaland (7th) and Manipur (8th) are at the bottom.

About the Index

- The annual Health Index, **measures the performance of states and Union Territories,** comprising 24 health performance
- It was launched by the **NITI Aayog in 2017.**
- The Aayog publishes the index in collaboration with the **Union Ministry of Health and the World Bank.**

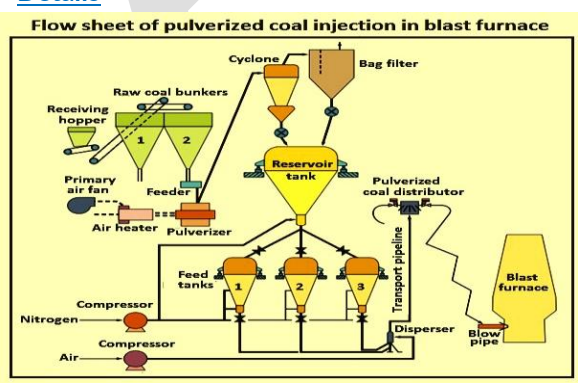
7. 17 SHORT TOPICS

Pulverized Coal Injection

Context

- Russia emerged as the top supplier of pulverised coal injection (PCI) to India's steel mills, for at least five months of FY23, displacing Australia as the key supply nation.

Details



About	• **Pulverized coal injection (PCI) is a process which involves injecting large volumes of fine coal particles into the raceway of the blast furnace (BF).** • **Pulverized coal is an** important auxiliary fuel **used in the BF ironmaking.**
Background	• Pulverized coal injection was developed in the 19th century, **but was not implemented industrially until the 1970s**. • In early 1960s, PCI was successfully implemented in

	AK Steel of USA and Shougang in China.
Sub-systems (6)	• Storage and discharge of the raw coal; • Pulverizing and drying of the raw coal; • Transportation, storage and supply of the pulverized coal to the injection system; • Uniform distribution of pulverized coal to each tuyere; • Combustion of pulverized coal; • Explosion prevention facilities;
Features	• PCI provides auxiliary fuel for partial coke replacement and has proven both economically and environmentally favourable. • It can result in substantial improvement in the BF efficiency and thus contribute to the reductions of energy consumption and environmental emissions. • It is an essential instrument for modern blast furnace ironmaking.
Significance	• **Lower consumption of expensive coking coals**. Replacing BF coke with cheaper soft coking or thermal coals reduces reductant costs. • **PCI system is less costlythan the cost of an additional coke oven battery**. Lower capital cost means lower depreciation and interest to be charged on the HM. • **Greater flexibility in BF operation. For example,** PCI allows the flame temperature to be adjusted, and the thermal condition in the BF can be changed much faster than is possible by adjusting the burden charge at the top of the furnace. • Improved consistency in the quality of the HM and its silicon content. • **Reduced overall emissions from steel plant**, in particular, lower emissions from coke making due to the decreased coke requirements.

READ: https://www.iasgyan.in/daily-current-affairs/pollution-by-thermal-plants

i-Drone initiative

Context

- The i-DRONE was first used during the COVID-19 pandemic by the ICMR for distributing vaccines to unreachable areas.

Details

- The iDrone initiative is a validation study conducted by ICMR, Lady Hardinge Medical College (LHMC), Government Institute of Medical Sciences (GIMS), Greater Noida, and Jaypee Institute of Information Technology (JIIT), Noida.

About	• **The iDrone initiative is a collaborative effort between ICMR, the Ministry of Civil Aviation, and the Directorate General of Civil Aviation.** • **It is part of the larger Digital Sky Platform, which is a framework for regulating and enabling drone operations in India.**
Background	• The i-DRONE was first used during the COVID-19 pandemic by the ICMR for

	distributing vaccines to unreachable areas.
Objective	• To address the challenges of blood transfusion services in rural and tribal areas, where access to blood banks and transportation facilities is limited.
Significance	• This was carried out in difficult geographical terrains including land, island, foothills and across the hills. • The medical supplies delivered under i-Drone project included COVID-19 vaccines, vaccines used routine immunisation programs, antenatal care medicines, multi-vitamins, syringes and gloves. • The drone delivery system focused on end-to-end ecosystem for drone-based logistic transportation within the states and was first successful example of delivering vaccines through drone from land to Island in South Asia. • The i-DRONE project was specifically designed for drone response and outreach for the North East and delivered medical supplies, including COVID-19 vaccines, routine immunisation program vaccines, antenatal care medicines, multi-vitamins, syringes, and gloves.

Tandem Solar Cells

Context

- A South Korean firm recently announced the world's first production line for perovskite-silicon tandem solar cells.

Details

About	• **Tandem cells are stacks of *p-n* junctions, each of which is formed from a semiconductor of different bandgap energy.** • **Each responds to a different section of the solar spectrum, yielding higher overall efficiency.**
Importance	• They are able to improve the efficiency of standard solar panels by splitting the light spectrum and optimising the harvesting of energy from each section into electricity.
Types	• There are several types of tandem cells that can be grouped mainly depending on materials used – whether it is organic, inorganic, hybrid and then classification goes deeper of what kind of connection type is used for sub-cells – stacked, monolithic or optical splitting. • Compounds of tandem module with silicon here are separated as to show their perspective and high results.
Perovskite	• It is a calcium titanium oxide mineral composed of calcium titanate (chemical formula CaTiO3). • A large number of different elements can be combined together to form perovskite structures. • Using this compositional flexibility, scientists can design perovskite crystals to have a wide variety of physical, optical, and electrical characteristics. Perovskite crystals are found today in ultrasound

	machines, memory chips, and now – solar cells. • The mineral was discovered in the Ural Mountains of Russia by Gustav Rose in 1839. • Perovskite occurs as small anhedraltosubhedral crystals filling interstices between the rock-forming silicates. Perovskite is a common mineral in the Ca-Al-rich inclusions found in some chondritic meteorites. • In stars and brown dwarfs the formation of perovskite grains is responsible for the depletion of titanium oxide in the photosphere.

Spitzer Telescope

Context

- The Spitzer Resurrection Mission will send a telerobotic space probe to bring the Spitzer space telescope back to life.

Details

- Spitzer was the third space telescope that was dedicated to infrared imaging and was launched in 2003.
- While it was initially designed to function for a little longer than five years, Spitzer continued chugging along till January 2020, when it was retired. But now, a bold new proposal aims to bring the veteran space telescope back to life.

Launched	• **The** Spitzer Space Telescope**, formerly the** Space Infrared Telescope Facility **(**SIRTF**), was an** infrared space telescope **launched in 2003.** • **It is** the final mission in NASA's Great Observatories Program **- a family of four space-based observatories, each observing the Universe in a different kind of light.**
Background	• The planned mission period was to be 2.5 years with a pre-launch expectation that the mission could extend to five or slightly more years until the onboard liquid helium supply was exhausted.
Working	• Spitzer's solar orbit simplified the satellite's cryogenic system by taking it away from the heat of Earth. • Much of the satellite's own heat was radiated into the cold vacuum of space, so that only a small amount of precious liquid helium cryogen was needed to maintain the telescope at its operating temperature of 5–15 K.
Significance	• Spitzer determined the temperature and the atmospheric structure, composition, and dynamics of several extrasolar planets. • Spitzer also observed the transits of the seven Earth-sized planets in the TRAPPIST-1 system, three of which are in the star's habitable zone, the distance from a star where liquid water can survive on a planet's surface. • Spitzer showed that even in that early epoch some galaxies had already grown to the size of present-day galaxies and that they must have formed within a few hundred million years of the big bang that gave birth to the universe some 13.7 billion years ago.

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Petaflop Supercomputers

Context

- India is set to dramatically scale up its super-computing prowess and install an 18-petaflop system over the course of this year - Ministry of Earth Sciences (MoES).

Details

About Flops	• **Flops (floating point operations per second) are an indicator of computers processing speed and a** petaflop refers to a 1,000 trillion flops. • **Processing power to such a degree greatly eases** complex mathematical calculations **required, for** among other things, forecasting how the weather **will be over the next few days all the way up to two-three months ahead.**
PetaFLOP	• Due to the immense computing power of today's computers, the FLOPs metric is most often represented in terms of billions (giga), trillions (tera), or even quadrillions (peta) of operations per second (GFLOPs, TFLOPs, PFLOPs, respectively). • A petaflop is thus **equal to a thousand TFLOPs or 1015 FLOPs.**
Are FLOPs the only metric to judge a computer's performance?	• **No. FLOPs is not the only factor determining the performance** of a computing system. Memory bandwidth, latency, and other architectural features also play significant roles. • Nonetheless, **FLOPs provide a valuable baseline for comparing** the **computational capabilities of different systems,** especially in tasks where floating-point calculations dominate.
Is India already using petaFLOPs computers for weather forecasting?	• **The NCMRWF houses 'Mihir', a 2.8 petaflop supercomputer**, while the Indian Institute of Tropical Meteorology (IITM), Pune, is home to 'Pratyush', a 4.0 petaflop supercomputer, as per PTI. • These were launched in 2018 and will be decommissioned once the new supercomputer is unveiled.

XPoSat

Context

The Indian Space Research Organisation is collaborating with the Raman Research Institute (RRI), Bengaluru, an autonomous research institute, to build the X-Ray Polarimeter Satellite (XPoSat) that is scheduled to be launched later this year.

Details

About	• **XPoSat will study** various dynamics of bright astronomical X-ray sources **in extreme conditions.** • It has been billed as India's first, and only the world's second polarimetrymission **that is meant to study various dynamics of bright astronomical X-ray sources in extreme conditions.** • **The other such major mission is** NASA's Imaging X-ray Polarimetry Explorer (IXPE) **that was launched in 2021.**
Function	• **IXPE carries three state-of-the-art space telescopes.** Each of the three identical telescopes hosts one light-weight X-ray mirror and one

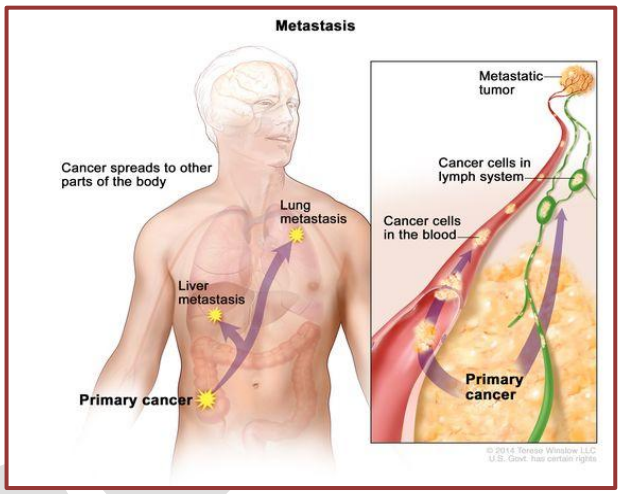
	detector unit. These will help observe **polarized X-rays from neutron stars** and supermassive black holes. • By measuring the polarisation of these X-rays, we can study where the light came from and understand the **geometry and inner workings of the light source.**
Payloads	• The spacecraft will **carry two scientific payloads in a low earth orbit.** • The primary payload POLIX (Polarimeter Instrument in X-rays) will measure the polarimetry parameters (degree and angle of polarisation). • The payload is being **developed by RRI in collaboration with ISRO's U R Rao Satellite Centre (URSC) in Bengaluru.** • **POLIX is expected to observe about 40 bright astronomical sources** of different categories during the planned lifetime of XPoSat mission of about 5 years. • This is the first payload in the medium X-ray energy band dedicated for polarimetry measurements.
Significance	• The XSPECT (X-ray Spectroscopy and Timing) payload will give spectroscopic information (on how light is absorbed and emitted by objects). • It would observe several types of sources, **such as X-ray pulsars, blackhole binaries, low-magnetic field neutron star, etc.**

Metastasis

Context

Cancer cells that begin metastasis, or the spread of the sickness from its origin, differ from cancer cells that remain in the original tumour.

Details



About	• **It is the spread of cancer cells from the place where they first formed to another part of the body.** • **In metastasis, cancer cells break away from the original (primary) tumor, travel through the blood or lymph system, and form a new tumor in other organs or tissues of the body.**
Symptoms	• Metastatic cancer does not always cause symptoms. When symptoms do occur, what they are like and how often you have them will depend on the size and location of the metastatic tumors.
Treatment	• There are treatments for most types of metastatic cancer. Often, the goal of treating metastatic cancer is to control it by stopping or slowing its growth. • Some people can live for years with metastatic cancer that is well controlled.

	• Other treatments may improve the quality of life by relieving symptoms. This type of care is called palliative care. • It can be given at any point during treatment for cancer.
Ongoing research	• Researchers are studying new ways to kill or stop the growth of primary and metastatic cancer cells. These ways include: o helping your immune system fight cancer o disrupting the steps in the process that allow the cancer cells to spread o targeting specific genetic changes in tumors

Global Health Emergency

Context

- The World Health Organization (WHO) on Thursday declared that mpox, formerly called monkeypox, no longer constitutes a global health emergency, almost a year after the disease started spreading across the world.

Details

- Almost exactly a year after declaring the spread of mpox a public health emergency of international concern (PHEIC), the World Health Organization (WHO) has officially lifted its warning following a steep fall in the number of cases.
- Mpox continues to pose significant public health challenges that need a robust, proactive and sustainable response.

About Mpox

About	• **Monkeypox is a viral zoonotic disease that occurs primarily in tropical rainforest areas of Central and West Africa and is occasionally exported to other regions.** • **Monkeypox virus is an enveloped double-stranded DNA virusthat belongs to the Orthopoxvirus genus of the Poxviridae family.**
Background	• The first case of monkeypox in humans was recorded in 1970 in the Democratic Republic of Congoduring a period of intensified effort to eliminate smallpox. • Scientists have so far discovered two distinct genetic groups of monkeypox virus—Central African and West African.
Causes	• It is caused by monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae. • Monkeypox belongs to the same family of viruses as smallpox. But Smallpox had a higher fatality rate than monkeypox. • Smallpox was declared eradicated worldwide in 1980.
Symptoms	• Monkeypox is characterised by flu-like symptoms and swelling of the lymph nodes, which gradually progresses to a widespread rash all over the face and body.
Transmission	• Monkeypox virus is mostly transmitted to people from wild animals such as rodents and primates, but human-to-human transmission also occurs. • It spreads from one person to another via respiratory droplets.
Treatment	• There is currently no specific treatment recommended for monkeypox. • Vaccination against smallpox was about 85% effective in preventing monkeypox. • Thus, prior childhood

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	smallpox vaccination may result in a milder disease course.

7. 19 2 MAINS QUESTION AND 10 MCQS

Q1. Artificial intelligence is going to change the traditional farming system, but we have to understand its limits". In light of this, discuss the benefits and challenges associated with AI. (10 marks)

Answer:

- Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The goals of artificial intelligence include learning, reasoning, and perception.
- Examples include: self-driving cars, virtual assistant etc.

Benefits of AI

- **Analyzing crop health:** AI equipped drone can capture data from fields and then data is transferred via a USB drive from the drone to a computer and analyzed by experts from the Government's agricultural department.
- **Precision Farming and Predictive Analytics:** AI applications can help in accurate and controlled farming by providing farmers proper guidance about water management, crop rotation, timely harvesting, type of crop to be grown, optimum planting, pest attacks, nutrition management.
- **Agricultural Product Grading:** Automated quality analysis of images of food products is an accurate and reliable method for grading fresh products (fruits, grains, vegetables, cotton etc.) characterized by color, size and shape.
- **Detecting weeds:** AI can effectively be used for differentiating between weeds and crop seedlings. It is one of the most efficient non-chemical ways of reducing weeds.

Issues related to it

- **High cost of investment:** One of the main challenges for farmers is the high investment cost of AI technology. AI systems require significant investments in hardware and software, as well as training and support.
- **Lack of technical expertise:** Another challenge is farmers' need for more technical expertise. Many farmers are unfamiliar with the latest AI technologies and may lack the technical skills to operate and maintain these systems.
- **Resistance to change:** Most farmers may hesitate to adopt the changes associated with new technologies. This is partly due to under-exposure and unfamiliarity with new systems.
- AI in agriculture offers numerous opportunities to farmers, including improved crop health monitoring, precision farming, and

weather forecasting. However, farmers face several challenges when adopting AI, including the cost of implementing AI systems and the need for technical expertise.

Q2. "Besides being a moral imperative of a Welfare State, primary health structure is a necessary precondition for sustainable development." In this context discuss about the central government health scheme.

Answer:

- It is a welfare scheme that provides comprehensive healthcare facilities to the employees and pensioners of the Central Government and their dependents residing in CGHS-covered cities. It covers allopathic, homoeopathic, ayurvedic, unani, siddha and yoga systems of medicine, as well as dental and eye care.

Benefits under CGHS

- CGHS beneficiaries can avail of services such as consultation, medicines, investigations, surgeries, dental care, ayurveda, homoeopathy, yoga, and naturopathy.
- CGHS beneficiaries can also book online appointments, apply for plastic cards, view their dashboard, lodge grievances, and access teleconsultation services through the CGHS website.
- CGHS also issues permissions and registrations for various medical procedures and treatments. CGHS charges a monthly contribution from its beneficiaries based on their pay level and entitlement.

Problems of CGHS:

- Many CGHS empanelled Hospitals including multi-speciality hospitals have withdrawn from the empanelment on the ground that the Govt is deliberately not revising the rates of various procedures for years together and not clearing their dues indefinitely.
- These Hospitals are now insisting the Pensioners to pay the amount in advance for treatment and then get it reimbursed. Where the Pensioners will go for Rs. 2 lacs and 5 lacs at a time.
- The authorities sitting in Health Ministry and CGHS are so insensitive they don't bother for the Hospitals leaving CGHS and no new Hospitals coming forward for empanelment.
- Recent Instructions of CGHS to cap price of implants at 60% of MRP and provide 20% discount on medicines and consumables have further irked the CGHS empanelled Hospitals.
- Shortage of Doctors, Specialists, Paramedical staff in Wellness Centres.
- The CGHS treatment rates should be revised once in 5 years, taking in to account the inflation rate, Cashless treatment facilities should be ensured in all hospitals, Government should bear 100% of the medical expenditure of employees and Pensioners as directed by Supreme Court several times.

Q3. With the present state of development, Artificial Intelligence can effectively do which of the following? (2020)

1. Bring down electricity consumption in industrial units
2. Create meaningful short stories and songs
3. Disease diagnosis
4. Text-to-Speech Conversion
5. Wireless transmission of electrical energy

Select the correct answer using the code given below:

A. 1, 2, 3 and 5 only
B. 1, 3 and 4 only
C. 2, 4 and 5 only
D. 1, 2, 3, 4 and 5

Answer: D

- *Artificial intelligence (AI) refers to the simulation of human intelligence by software-coded heuristics. Nowadays this code is prevalent in everything from cloud-based, enterprise applications to consumer apps and even embedded firmware.*
- *The ideal characteristic of artificial intelligence is its ability to rationalize and take actions that have the best chance of achieving a specific goal.*
- *A subset of artificial intelligence is machine learning (ML), which refers to the concept that computer programs can automatically learn from and adapt to new data without being assisted by humans.*

- *Deep learning techniques enable this automatic learning through the absorption of huge amounts of unstructured data such as text, images, or video.*
- *Artificial intelligence is based on the principle that human intelligence can be defined in a way that a machine can easily mimic it and execute tasks, from the most simple to those that are even more complex.*

Q4. With regard to Pulverized Coal Injection, consider the following statements:

1. It is a process which involves injecting large volumes of fine coal particles into the raceway of the blast furnace (BF).
2. It was developed in the 19th century and was implemented industrially in the 1970.

Which of the above given statements is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2
Answer: A

- *Pulverized coal injection (PCI) is a process which involves injecting large volumes of fine coal particles into the raceway of the blast furnace (BF). Pulverized coal is an* ***important auxiliary fuel*** *used in the BF iron making.* ***Hence statement 1 is correct.***
- *Pulverized coal injection was developed in the 19th century,* ***but was not implemented industrially until the 1970s.*** *In early 1960s, PCI was successfully implemented in AK Steel of USA and Shougang in China.* ***Hence statement 2 is incorrect.***

Q5. Consider the following statements:

1. One eukaryote, Monocercomonoides, is known to have completely lost its mitochondria.
2. The mitochondrion has its own genome ("mitogenome") that is substantially similar to bacterial genomes.

Which of the above statements is/are incorrect?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2
Answer: D

- *One eukaryote, Monocercomonoides, is known to have completely lost its mitochondria and one multicellular organism, Henneguyasalminicola, is known to have retained mitochondrion-related organelles in association with a complete loss of their mitochondrial genome.* ***Hence statement 1 is correct.***
- *Although most of a eukaryotic cell's DNA is contained in the cell nucleus, the mitochondrion has its own genome ("mitogenome") that is substantially similar to bacterial genomes.* ***Hence statement 2 is correct.***
- *A mitochondrion contains outer and inner membranes composed of phospholipid bilayers and proteins.*

Q6. Consider the following statements about XPoSat mission:

1. X-rays come from objects that are millions of degrees Celsius such as pulsars, galactic supernovaremnants, and black holes.
2. XPoSat is the world's first, and only India's second polarimetry mission that is meant to study variousdynamics of bright astronomical X-ray sources in extreme conditions.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2
Answer: A

- *XPoSat will study various dynamics of bright astronomical X-ray sources in extreme conditions.X-rays come from objects that are millions of degrees Celsius — such as pulsars, galactic supernova remnants, and black holes.*
- *Like all forms of light, X-rays consist of moving electric and magnetic waves. Usually, peaks and valleys of these waves move in random directions. Polarised light is more organised with two types of waves vibrating in the same direction.* ***Hence statement 1 is correct.***
- *It has been billed as India's first, and only the world's second polarimetry mission that is meant to study various dynamics of bright astronomical X-ray sources in extreme conditions.*
- *The other such major mission is NASA's Imaging X-ray Polarimetry Explorer (IXPE) that was launched in 2021.* ***Hence statement 2 is incorrect.***
- *The spacecraft will carry two scientific payloads in a low earth orbit.*
- *The primary payload POLIX (Polarimeter Instrument in X-rays) will measure the polarimetry parameters (degree and angle of polarisation).*

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Q7. In the context of Aadhaar Enabled Payment System (AePS), consider the following statements:

1. It is a bank-led model that is developed by the National Payments Corporation of India (NPCI).
2. It does not allow interoperability among different banks to enable people to use any bank's micro-ATM.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2
Answer: A

- *AePS is a bank-led model that is developed by the National Payments Corporation of India (NPCI), which is the umbrella organization for all retail payment systems in India.* ***Hence statement 1 is correct.***
- *It allows interoperability among different banks and enables people to use any bank's micro-ATM or PoS device to access their bank account.*
- *It facilitates the delivery of government benefits and subsidies directly to the beneficiaries bank accounts through Aadhaar.* ***Hence statement 2 is incorrect.***
- *It is a simple, secure and convenient way to make payments, especially for those who do not have access to smartphones, the Internet or formal banking channels.*
- *It removes the need for OTPs, bank accounts and other financial details.*

Q8. Which of the following statements are correct with reference to National Health Accounts Estimates for India (2019-20)?

1. The NHA estimates are prepared by using an accounting framework based on the internationally accepted standard of System of Health Accounts, 2011, developed by the World Health Organization (WHO).
2. In the Total Health Expenditure (THE) of the country between 2014-15 and 2019-20, the share of GHE has increased from 29% to 41.4%.
3. The share of Out-of-Pocket Expenditure (OOPE) in total Health Expenditure (THE) declined from 62.6% to 47.1%.
4. During this period, the share of Government Health Expenditure (GHE) in the overall GDP of the country has increased from 1.13% in 2014-15 to 1.35% in 2019-20.

Select the correct option using the code given below:

A. 1, 2 and 4 only
B. 1, 3 and 4 only
C. 3 and 4 only
D. 1, 2, 3 and 4
Answer: D

- *The NHA estimates are prepared by using an accounting framework based on the internationally accepted standard of System of Health Accounts, 2011, developed by the World Health Organization (WHO).*
- *In the Total Health Expenditure (THE) of the country between 2014-15 and 2019-20, the share of GHE has increased from 29% to 41.4%.*
- *The share of Out-of-Pocket Expenditure (OOPE) in total Health Expenditure (THE) declined from 62.6% to 47.1%.*
- *During this period, the share of Government Health Expenditure (GHE) in the overall GDP of the country has increased from 1.13% in 2014-15 to 1.35% in 2019-20.*

Q9. With regard to Psychedelic drugs, consider the following statements:

1. These are non-addictive but toxic in nature.
2. In India, the Narcotic Drugs and Psychotropic Substances Act 1985 permits the use of psychedelic substances.

Which of the above given statements is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2
Answer: D

- ***Psychedelics*** *are a* ***group of drugs*** *that alter perception, mood, and thought processing while a person is still clearly conscious. Psychedelics are* ***non-addictive and non-toxic****. Compared to illicit drugs, psychedelics cause much less harm to the end user.* ***Hence statement 1 is incorrect.***
- *In India, the Narcotic Drugs and Psychotropic Substances Act 1985 prohibits the use of psychedelic substances. Ketamine, a dissociative anaesthetic with psychedelic properties, is used under strict medical supervision, for anaesthesia and to treat treatment-resistant depression.* ***Hence statement 2 is incorrect.***

Q10. Which of the following Reports are released by NITI Aayog?

1. Sustainable Development Goals (SDG) India Index.
2. Health Index.
3. School Education Quality Index.
4. Digital Transformation Index.

Which of the above statements is/are incorrect?

A. Only 1 and 2
B. Only 2 and 4
C. Only 1, 2 and 3
D. All of the above

Answer: (d) All of the above

Q11. The term Erythritol was in news, it is related to which among the following?

A. Pesticide.
B. Artificial Sweetener.
C. Drug to treat HIV.
D. Chemical to break down the oil into smaller droplets.

Answer: B

- *Erythritol occurs naturally in some fruit and fermented foods.*
- *It also occurs in human body fluids such as eye lens tissue, serum, plasma, fetal fluid, and urine.*
- *At the industrial level, it is produced from glucose by fermentation with a yeast, Moniliellapollinis.*

Q12. Which of the following statements with reference to World Health Assembly is/are incorrect?

1. It is the forum through which the World Health Organization (WHO) is governed.
2. It is also responsible for the endorsement of the WHO Family of International Classifications.

Select the correct option using the code given below:

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Answer: D

- *Both statements are correct:*
- *It is the forum through which the World Health Organization (WHO) is governed by its 194 member states.*
- *It is the world's highest health policy-setting body and is composed of health ministers from member states.*
- *The members of the WHA generally meet every year in May in Geneva at the Palace of Nations, the location of WHO Headquarters.*
- *The WHA is also responsible for the endorsement of the WHO Family of International Classifications, a series of internationally standardized medical classifications, including the International Classification of Diseases (ICD) and the International Classification of Functioning, Disability and Health (ICF).*

8. CULTURE & HISTORY

8. 1 SATAVAHANA DYNASTY

Context

- An archaeological discovery has been made in Telangana. Archaeologists have unearthed various relics and artefacts that they claim belong to the Satavahana dynasty, one of the ancient Indian kingdoms that ruled from the 1st century BC to the 3rd century AD.

Details

- The team has found coins, pottery, sculptures, inscriptions and other items that shed light on the culture, economy and religion of the Satavahanas.
- The discovery was made at a site near the village of Pedda Bonkur in Nalgonda district, about 100 km from Hyderabad.
- The team has been conducting excavations at the site since 2019, with the permission and support of the Archaeological Survey of India (ASI).

Satavahana dynasty

About

- The Satavahana dynasty was an ancient Indian dynasty that **ruled over large parts of southern India from the late 2nd century BCE to the early 3rd century CE.**
- They were also **known as the Andhras in the Puranas**, the ancient Hindu scriptures.
- The Satavahanas were the **first native rulers to establish an empire in the Deccan region, after the decline of the Mauryan Empire.**
- The origin and homeland of the Satavahanas are uncertain, but some scholars suggest that they belonged to the Andhra tribe and came from the eastern coast of India.
- The **first king of the dynasty, Simuka**, overthrew the Kanva dynasty and expanded his kingdom to include parts of Maharashtra and Gujarat.
    - His successors, such as Krishna, Satakarni I, and Gautamiputra Satakarni, further extended their rule to cover most of central and western India, as well as parts of Andhra Pradesh, Karnataka, and Madhya Pradesh.

Administration

- The Satavahanas had **different capital cities at different times**, such as **Pratishthana (Paithan) and Amaravati (Dharanikota).**
- They had a centralized administration and a well-organized army and navy.
- The **empire was divided into several provinces or aharas**, each **governed by a provincial governor or amatya.**
    - The amatyas were appointed by the king and were responsible for collecting taxes, maintaining law and order, and administering justice.
- Administration was **influenced by the local customs and traditions** of the different regions under their rule.
- They were credited with establishing peace and prosperity in the Deccan after the decline of the Mauryan Empire and resisting the invasions of foreign powers such as the Indo-Greeks, the Indo-Scythians, and the Western Kshatrapas.

Rulers

- The **king was the supreme authority and the source of law and justice**. He maintained a large army and navy to protect his territory and expand his influence.
- He also maintained diplomatic relations with foreign powers such as the Indo-Greeks, the Parthians, the Kushans and the Romans.
- They **respected the autonomy and diversity of their subjects and did not impose a uniform system of administration or culture.** They allowed the local communities to follow their laws, religions and languages.
- They also **encouraged the development of regional arts and crafts** such as pottery, sculpture, painting and architecture.
- The Satavahana rulers **adopted the title of raja or maharaja**, meaning king or great king,

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and claimed to be the descendants of the solar dynasty.
    - They also used various other titles such as satakarni, saka and trisamudrapati, indicating their military prowess, conquests and maritime trade.

Gautami putra Satakarni

- The **Satavahanas reached the zenith of their glory under Gautamiputra Satakarni**, who ruled from c. 106 to 130 CE.
- He is regarded as the greatest of the Satavahana kings, and his achievements are recorded in a famous inscription at Nashik.
- He defeated **several foreign invaders, such as the Western Kshatrapas, the Indo-Parthians, and the Yavanas (Greeks),** and extended his empire from Rajasthan in the northwest to Andhra in the southeast and from Gujarat in the west to Kalinga in the east.
- He also patronized Brahmanism and Buddhism and performed several Vedic sacrifices.

Coinage

- The Satavahanas were **among the first Indian rulers to issue coins with their portraits**, a practice that started with Gautamiputra Satakarni, one of their most famous kings.
- Their coins were **made of copper, silver, lead, and potin**, and came in different shapes such as round, square, and rectangular.
- The coins had various symbols **and motifs on them, such as elephants, horses, lions, ships, chaityas** (Buddhist shrines), Ujjain symbols (a cross with four circles at the ends), and Brahmi inscriptions in the Prakrit language.
- They issued coins in various metals and denominations, bearing their names and titles, as well as symbols of their religion and culture.

Religion

- The Satavahanas **followed various religions**, such as Hinduism, Buddhism, Jainism, and Sākta.
- They also **patronized different sects and schools** within these religions, such as Vedic, Śaiva, Vaiṣṇava, Mahāyāna, Hīnayāna, Digambara, Śvetāmbara, and Tantric.
- They **built temples, monasteries, stupas, chaityas, and vihāras** for different faiths and donated land and money for their maintenance.
- They also issued coins with religious symbols and inscriptions that reflected their personal beliefs and preferences.
- They participated in religious festivals and ceremonies of different faiths and invited religious teachers and scholars to their courts.
- They also **supported inter-religious dialogue** and debate and encouraged the exchange of ideas and doctrines. They believed in religious harmony and coexistence and promoted a culture of pluralism and diversity.

Art and Architecture

Cave temples

- Development of cave temples, or chaityas, for Buddhist worship. The Satavahanas were tolerant of different religions and sects and supported the spread of Buddhism in their realm.
- The cave temples were excavated from natural rock formations, and decorated with sculptures and paintings.
- The most famous example of Satavahana cave art is the **Karla caves in Maharashtra,** which date back to the 1st century CE.
    - The Karla caves feature a large hall with a vaulted roof, supported by wooden ribs.
    - The hall contains a stupa, a hemispherical mound that represents the Buddha's relics.
    - The walls and pillars of the hall are adorned with reliefs of Buddha images, floral patterns, mythical creatures, and scenes from Buddhist legends.

Stupas

- The **Amaravati stupa, also known as the Mahachaitya or the Great Stupa**, was one of the largest and most elaborate stupas in India.
    - It had a circular base of about 50 meters in diameter, surrounded by a stone railing with four gateways.
    - The dome was covered with white marble slabs that were carved with intricate

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scenes from the life of the Buddha and his previous incarnations.

- **The Nagarjunakonda stupa is located on an island in the Krishna River**, near the ancient city of Vijayapuri. The stupa was surrounded by a complex of monasteries, temples, shrines, and other structures that formed a Buddhist centre of learning and culture.
- The Sanchi stupa was originally built by the Mauryan emperor Ashoka in the 3rd century BCE, but it was enlarged and embellished by the Satavahanas in the 1st century BCE.

Literature

- The Satavahanas were **influenced by various cultures**, such as the Mauryan, the Indo-Greek, the Scythian and the Parthian, but they also developed their distinctive style of art and literature.
- They **excelled in sculpture, painting, coinage, pottery and jewellery making**. They used various materials, such as stone, metal, terracotta, ivory and glass, to create beautiful and expressive works of art.
- They also produced some of the earliest examples of **Indian literature in the Prakrit and Sanskrit languages**.
- Some of their famous literary works include the **Gathasaptashati** (a collection of love poems), and the **Nasik Prashasti** (a royal inscription).

Economy

- The Satavahanas **collected taxes from their subjects in various forms**, such as land revenue, customs duties, tolls and tributes. They also levied fines and penalties for crimes and offences.
- The taxes were used to fund the royal treasury, as well as to support public works, such as roads, irrigation systems, temples and monasteries.
- They **granted land grants and donations to religious institutions** and individuals, which were recorded in inscriptions on stone and copper plates. They were the first to start the practice of land donation to religious persons and scholars.

Agriculture

- The Satavahanas had a **prosperous agriculture system** that supported their population and economy. They cultivated crops such as rice, wheat, barley, millets, pulses, oilseeds and sugarcane.
- They also raised animals such as cattle, sheep, goats, horses and elephants. They utilized the natural resources of their land, such as forests, rivers and lakes.
- They also **developed irrigation techniques** to enhance their agricultural productivity.

Trade

- They were involved in extensive trade with other regions, both within and outside India.
- They controlled the trade routes that connected the western coast of India with the Roman Empire, the eastern coast of India with Southeast Asia and China, and the northern plains of India with Central Asia and Persia.
- They exported commodities such as cotton, spices, pearls, ivory, gems and perfumes, and imported goods such as gold, silver, wine, silk and glass.

Society

- The Satavahanas **followed the varna system of four main classes**: Brahmins (priests and scholars), Kshatriyas (warriors and rulers), Vaishyas (merchants and farmers) and Shudras (servants and labourers).

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- They also recognized many sub-castes and occupational groups within these classes, such as the **Nagaras (urban dwellers),** the **Gramanis (village chiefs),** the **Srenis (guilds),** the **Gahapatis (landowners)** and the **Balijas (traders).**
- They also granted **special status to some foreign groups**, such as the Yavanas (Greeks), the Sakas (Scythians) and the Pahlavas (Parthians), who were involved in trade and diplomacy with them.
- The **society was their religious diversity and tolerance**. They were patrons of various religious traditions, such as Hinduism, Buddhism, Jainism and Zoroastrianism. They built temples, stupas, monasteries and fire altars for different faiths and donated land and money to support them.

Decline

- The Satavahana dynasty declined in the early 3rd century CE, due to internal conflicts, foreign invasions, and economic decline.
- They were succeeded by various regional dynasties, such as the Ikshvakus, the Vakatakas, the Pallavas, and the Abhiras.
- The Satavahanas left a lasting legacy in Indian history and culture, and are regarded as one of the great ancient dynasties of India.

8. 2 SENGOL

Context

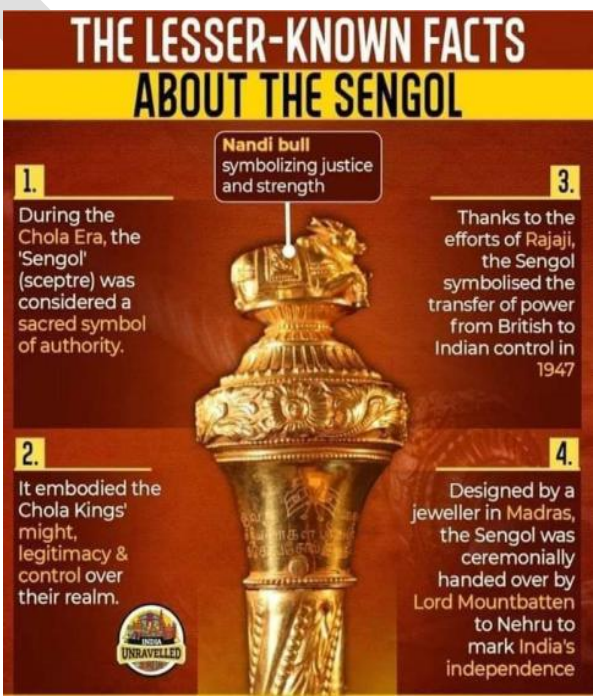
- At the inauguration of the new Parliament House, the Prime Minister established the historical and sacred "Sengol" in the Parliament House.

Details

- Prime Minister said that the "Sengol" is not only a symbol of Tamil pride but also a symbol of national unity and diversity. He said that India is a land of many languages, religions, cultures and traditions and that the "Sengol" reflects this richness and harmony.
- He also said that the "Sengol" is a reminder of the glorious past and the bright future of India. He expressed his hope that the new Parliament House will be a place where all Indians can work together for the welfare and progress of the nation.
- The Sengol has a long and rich history that dates back to the Chola dynasty and the Independence of India.

The Origin of the Sengol

- The word Sengol comes **from the Tamil word "Semmai" which means righteousness.**
- It was a **symbol of authority and legitimacy** that was conferred by Hindu holy men to the kings of the Chola dynasty, one of the most powerful and influential empires in South India.
- It was a five feet long sceptre that had a golden orb at the top, with a carving of Nandi, the bull that is sacred to Lord Shiva.
- It was **handed over to the new king with an order to rule his subjects fairly and justly**, according to the principles of Dharma.



The Sengol and the Independence of India

- The Sengol was gifted to Jawaharlal Nehru, the first Prime Minister of India, on the eve of August 14, 1947, by a delegation of holy men

from the Thiruvaduthurai Adheenam Matha, a well-known monastery in Tamil Nadu.

- The Sengol was presented to Nehru as a sign of the transfer of power from the British regime to the Indians and as a blessing for the new nation. Nehru accepted the Sengol with reverence and gratitude, and wore a pithambaram, a traditional yellow silk garment, as a mark of respect.
- It soon faded from public memory and was stored in the Allahabad Museum under a misleading label that read "Golden walking stick gifted to Pandit Jawaharlal Nehru". It remained there for decades until it was rediscovered and installed in the new Parliament House in 2023

The Sengol in the New Parliament House

- The Sengol was kept in the Allahabad Museum for many years, until it was retrieved by Prime Minister in 2023, for the inauguration of the new Parliament House.
- Prime Minister installed the Sengol near the chair of the Speaker of the Lok Sabha, in the presence of Hindu priests who performed prayers and rituals.
- The PM said that the Sengol was a symbol of India's glorious past and its bright future and that it reflected the spirit of democracy and diversity that India stands for.

The Sengol is more than just a sceptre; it is a representation of India's culture, heritage, and values. The Sengol signifies:

- The continuity and resilience of India's civilization, which has survived and thrived through centuries of invasions, colonization, and partition.
- The unity and diversity of India's people, who have different languages, religions, ethnicities, and regions, but share a common identity and destiny as Indians.
- The sovereignty and dignity of India's nationhood that was achieved through a long and hard struggle for freedom and justice.
- The democracy and secularism of India's polity ensure equal rights and opportunities for all citizens, regardless of their caste, creed, or gender.
- The righteousness and responsibility of India's leadership, which is accountable to the people and guided by the principles of Dharma.

Conclusion

- The Sengol is a symbol of power and righteousness that inspires us to uphold our values and aspirations as Indians. It reminds us of our glorious past and our bright future. It challenges us to work together for the progress and prosperity of our nation.

8. 3 SHORT TOPICS

Thrissur Pooram

Context

- Thrissur Pooram is a Hindu festival that takes place every year in the month of Medam (April-May) at the Vadakkunnathan Temple in Thrissur City, Kerala.

Details

- The festival is a grand display of the rich and diverse traditions of Kerala, featuring majestic elephant processions, dazzling fireworks, rhythmic drum beats, and vibrant parasols.

Origin

- The origin of Thrissur Pooram dates back to the late 18th century, when the ruler of Cochin, Rama Varma Sakthan Thampuran, unified the 10 temples around Vadakkunnathan Temple and organized a collective festival for them.
- The festival is held on the day when the moon rises with the Pooram star in the Malayalam calendar.
- The main participants of the festival are two groups of temples, called Thiruvambadi and Paramekkavu, who compete with each other in various aspects of the festival.
- Despite being a Hindu festival, the Thrissur Pooram is attended by various sections of Kerala society.

Celebration

- The festival begins with the hoisting of ceremonial flags at each temple seven days before the main event.
- On the fourth day, a sample display of fireworks is held at both Thiruvambadi and Paramekkavu temples.
- On the seventh day, the main attractions of the festival take place. These include:
    - **Madathil Varavu:** Elephants carry the idols of the deities on their backs and are decorated with golden caparisons, ornaments, and parasols from Thiruvambadi temple to Vadakkunnathan Temple.
    - **Elinjithara Melam:** A performance of chenda (a cylindrical percussion instrument) by about 250 artists on a raised platform in front of Vadakkunnathan Temple.
    - **Kudamattam:** A Competition between two rival groups of temples, each consisting of 15 elephants, in front of the Vadakkunnathan Temple.
    - **Vedikettu:** A grand display of fireworks that lasts for about four hours and lights up the sky with various patterns and shapes.
- The festival ends with a farewell ceremony on the 8th day when the deities of both groups of temples are taken back to their respective shrines.

Conclusion

- Thrissur Pooram is not only a religious festival but also a cultural celebration that showcases the diverse and vibrant aspects of Kerala's heritage. The festival also promotes harmony and unity among different communities and sects, as people from various faiths and backgrounds participate in the celebrations.

Channapatna Toys

Context

- Appreciating the Union Government's decision to ban the import of toys from China, Channapatna's toy makers say that the step has helped in increasing their profits.

Details

- Toy makers said that the ban on the import of Chinese toys has helped them generate more profits.
- They said that the demand for Channapatna's toys increased after the government imposed a ban on the import of toys from China.

Channapatna Toys

- **Channapatna toys are wooden toys** that are made in the town of Channapatna in Karnataka.
- They are known for their bright colours, intricate designs and eco-friendly materials.
- These toys have a history of over two centuries and are recognized as a geographical indication (GI) by the Government of India.

Origin

- The origin of Channapatna toys can be traced back to the reign of Tipu Sultan, the ruler of Mysore in the 18th century.
    - He invited artisans from Persia to train the local craftsmen in the art of making wooden toys.
- The craft flourished under the patronage of Tipu Sultan and his successors, and soon Channapatna became a hub of toy production.

Process

- The main material used for making Channapatna toys is aale mara or ivory wood, which is soft and easy to carve.
    - The wood is seasoned, cut into desired shapes and then turned on a lathe.

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- The toys are then **painted with vegetable dyes** that are derived from natural sources such as turmeric, indigo, kumkum and lacquer.
- The dyes are non-toxic and safe for children.
- The toys are then polished with sandpaper and beeswax to give them a smooth finish.

Variety of forms and themes

- Channapatna toys come in a variety of forms and themes, such as animals, birds, fruits, vegetables, dolls, vehicles, puzzles and musical instruments.
- Some of the popular toys are chowka bara (a board game), gombegala ooru (a village set), navilu (a peacock), mayura (a swan), aneka (an elephant), kili (a parrot) and ratha (a chariot).
- The toys are designed to stimulate the imagination and creativity of children and also to educate them about the culture and heritage of India.

Way Forward

- Channapatna toys are not only a source of joy for children but also a means of livelihood for thousands of artisans who practice this craft.
- The craft is passed on from generation to generation and is a part of the identity and pride of Channapatna.
- In recent years, the craft has faced many challenges such as competition from cheap plastic toys, lack of innovation and marketing, shortage of raw materials and skilled workers, and low awareness among consumers.
- Many initiatives have been taken by the government, NGOs and private sector to revive and promote Channapatna toys. These include providing training, financial assistance, quality certification, design development, branding, online platforms and exhibitions for the artisans.

Conclusion

- Channapatna toys are a unique example of how a traditional craft can adapt to changing times and still retain its essence and charm. They are a testimony to the skill, creativity and passion of the Channapatna artisans who have kept this craft alive for generations. Channapatna toys are not just toys but a piece of art that reflects the culture and spirit of India.

Tawang Monastery

Context

- The Tawang monastery in Arunachal Pradesh has expressed its dissatisfaction over China renaming different places in the state. The monks said that the neighbouring country did not have any right to do this in Indian territory.

Tawang Monastery

About

- It is the largest monastery in India and the second largest in the world after the Potala Palace in Tibet.
- It is located in the Tawang district of Arunachal Pradesh, a state in the northeastern part of India that shares borders with China and Bhutan.
- The monastery was founded in the 17th century by Merak Lama Lodre Gyatso, a disciple of the 5th Dalai Lama, and belongs to the Gelug school of Tibetan Buddhism.
- It is also known as Gaden Namgyal Lhatse, which means "the divine paradise of complete victory".
- The main attraction of the monastery is the three-storeyed assembly hall, which houses a 26-foot-high gilded statue of Buddha

Shakyamuni, along with statues of other deities and lamas.
    - The hall also contains a rich collection of ancient scriptures, thangkas, murals, and other religious artefacts.

The Place of Worship and Learning

- The monastery is not only a place of worship and learning but also a cultural and social centre for the local people.
- It hosts various festivals and ceremonies throughout the year, such as;
    - Losar (Tibetan New Year)
    - Torgya (a ritual to ward off evil spirits)
    - Monlam (a prayer festival)
    - Choekhor (a circumambulation of sacred texts).
- The monastery also runs a school for young monks, where they receive education in both secular and religious subjects.
- The monastery also supports several other smaller monasteries and nunneries in the region.

Gopal Krishna Gokhale

Context

- 9th May marks the birth anniversary of Gopal Krishna Gokhale, on this occasion, the Prime Minister of India has paid homage to Gokhale and his contributions to the nation.

Details

Early life

- Gopal Krishna Gokhale was a prominent social reformer and political leader who played a vital role in the Indian independence movement.
- He was born on May 9, 1866, in a village in Ratnagiri district of Maharashtra.
- He received his education at Elphinstone College in Mumbai, where he was influenced by the liberal ideas of John Stuart Mill and Edmund Burke.
- He became a **professor of history and political economy at Fergusson College in Pune**.

Ideology

- Gokhale was a **disciple of Mahadev Govind Ranade**, a moderate nationalist who advocated social reforms and constitutional methods of agitation
- He was a **moderate leader who believed in constitutional reforms** and gradual progress towards self-government.
- He advocated for the rights of Indians in education, civil service, and representation in the legislative councils.
- He also **supported social reforms such as the abolition of child marriage and untouchability.**
- He **promoted women's rights**, untouchability eradication, and religious harmony.
- He **wanted India to adopt a parliamentary system of government** with universal suffrage and civil liberties.

Important Associations and Newspaper

- **Gokhale founded the Servants of India Society in 1905**, a voluntary organization dedicated to the up liftment of the poor and the oppressed.
- He **established the Deccan Education Society in 1984**, which aimed to provide quality education to the masses.
    - The society established the Fergusson College in Pune in 1985.
- The Hitavada is an English daily newspaper circulating mainly in Central parts of India. Founded in 1911 by the Gopal Krishna Gokhale.

Inspiration for many freedom fighters

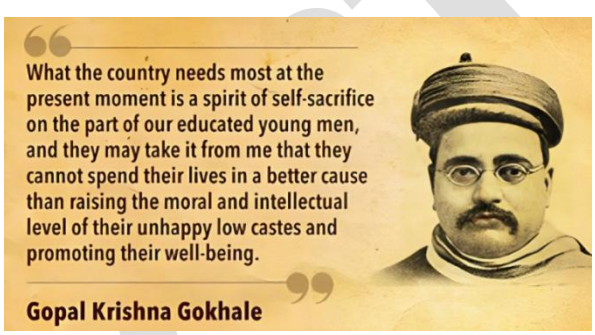
- Gokhale was a source of inspiration for many young leaders, including Mahatma Gandhi,

who regarded him as his political guru. **He visited South Africa in 1912 and met Gandhi**, who was then leading the Indian community's struggle against racial discrimination.

- He was a mentor to many young leaders, such as Jawaharlal Nehru and Mohammad Ali Jinnah.

Relation with Congress and British Government

- Gokhale joined Congress in 1989. He was known for his eloquence, integrity, and diplomacy.
- He **opposed the extremist faction within the Congress led by Bal Gangadhar Tilak**, who advocated violent resistance and boycott of British goods and institutions.
- Gokhale believed in cooperation and dialogue with the British government and sought to achieve self-government through gradual reforms.
- He was instrumental in passing the Indian Councils Act of 1909, which increased the representation of Indians in the legislative councils.
- He was **elected as the president of the Indian National Congress in 1905 and 1910** and represented India at the Imperial Legislative Council.
- He played a **leading role in bringing about the Morley-Minto Reforms (1909),** the beginning of constitutional reforms in India.



Internationalist

- Gokhale was also an internationalist who **visited several countries to spread awareness about the Indian situation** and seek support for the nationalist cause.
- He visited England in 1914, where he met several British politicians and intellectuals, including David Lloyd George and John Morley. He tried to persuade them to grant more autonomy and rights to India.

Some of his famous quotes are:

- "No taxation without representation."
- "It doesn't take quite long for patience to manifest into intelligence."
- "What the country needs most at the present moment is a spirit of self-sacrifice on the part of our educated young men."
- "What Bengal thinks today, India thinks tomorrow".

Conclusion

- Gokhale died in February 1915 at the age of 48 due to poor health. He left behind a legacy of moderation, rationalism and reformism that shaped the Indian freedom struggle into a quest for building an open society and egalitarian nation. His contribution to India's national movement was immense and deserves to be remembered with gratitude and respect.

Tungnath Temple

Context

- Tungnath temple, one of the highest Shiva temples in the world and the highest of the five Panch Kedar temples, has been declared a national monument by the Central Government of India.

Details

- The temple, located in the Rudraprayag district of Uttarakhand, is said to have been built by Arjuna, the third Pandava brother, as a part of their penance for killing their cousins and Brahmins in the Kurukshetra war.

Tungnath temple

- Tungnath temple is **one of the highest Shiva temples in the world** and the highest of the five Panch Kedar temples located in the Rudraprayag district of Uttarakhand.
- The temple is situated on the Tungnath Mountains, which form the Mandakini and Alaknanda river valleys. It is at an altitude of 3,680 meters and just below the peak of Chandrashila.
- The temple has a rich legend associated with the Pandavas, the heroes of the Mahabharata epic, who built the temple to seek forgiveness

from Shiva for their sins in the Kurukshetra war.
- The temple is **built in the North Indian style of temple architecture** and has a black rock linga that represents Shiva's arms.
- The temple also has idols of sage Vyas, Kala Bhairav, Parvati and Ganesha, as well as silver plaques of the other four Panch Kedar temples.
- The temple is surrounded by several small shrines of various gods and goddesses.

Conclusion

- The declaration of the Tungnath temple as a national monument is a welcome step that will help preserve and promote the ancient heritage and culture of the region. It will also attract more tourists and pilgrims to visit this sacred site and experience its spiritual and natural beauty.

National Gallery of Modern Art

Context

- Prime Minister of India visited the Jana Shakti Art exhibition at the National Gallery of Modern Art in New Delhi.

Details

- The exhibition showcases the works of various artists who have captured the spirit of India's freedom struggle and its achievements in the last 75 years.
- The PM was accompanied by Culture Minister and other dignitaries.
- He interacted with some of the artists and appreciated their creativity and talent.

Jana Shakti Art exhibition

- The Art exhibition is part of the Azadi Ka Amrit Mahotsav, a series of events to commemorate the 75th anniversary of India's independence.
- The exhibition features paintings, sculptures, installations, photographs and digital art by over 200 artists from across the country.
- The exhibition will be open for public viewing till June 15.

National Gallery of Modern Art

- It is one of the premier museums in India, showcasing a collection of more than 17,000 paintings, sculptures, prints, and photographs by Indian and international artists.
- **It was established in 1954 by the Ministry of Culture** and is housed in a former palace of the Maharaja of Jaipur.
- The museum has three branches: one in New Delhi, one in Mumbai, and one in Bengaluru.
- The collection spans various movements and styles of modern art, such as Cubism, Expressionism, Surrealism, Abstract Art, and Pop Art.
- Some of the notable artists whose works are displayed include Amrita Sher-Gil, Rabindranath Tagore, M.F. Husain, Nandalal Bose, Raja Ravi Varma, etc.
- The museum also organizes temporary exhibitions, workshops, lectures, film screenings, and educational programs for the public.

Adopt A Heritage Scheme

Context

- Adopt a Heritage scheme, which was launched in 2017 to encourage private and public sector companies to adopt and maintain heritage sites and monuments across the country, is set to be revised and expanded.

Details

- The Adopt a Heritage scheme, in which firms are asked to adopt a heritage site for its maintenance and upkeep, will now be modified after certain sites found it difficult with a lack of takers in previous attempts.

Highlights

- The **revised version of the scheme will involve handing over around 1,000 monuments to the private sector** for their upkeep under the control of the Archaeological Survey of India (ASI).
    - The **companies that enter into such agreements will be called "Monument Mitras" and will be responsible for building, operating and maintaining tourism infrastructure at the sites.**

- The government hopes to adopt 500 protected sites by August 15, 2023, and another 500 sites shortly thereafter.
- The scheme, which was **previously implemented by the tourism ministry, will now be carried out by the culture ministry.**
- According to officials, a website will be developed, and road shows and other events will be organised to publicise the scheme.

Adopt a Heritage Scheme

About

- The Indian government launched the Adopt a Heritage scheme in 2017 intending to preserve and promote the country's rich cultural and natural heritage.
- The scheme **invites public and private sector entities to adopt heritage sites and monuments and take up their maintenance, conservation and development.**
- The scheme also encourages the involvement of local communities and stakeholders in the management of heritage assets.

Features

- It is based on a public-private partnership (PPP) model, where the **government provides the basic infrastructure and facilities, while the private partner brings in the expertise, resources and innovation.**
- It covers not only monuments and archaeological sites, but also natural heritage sites such as national parks, wildlife sanctuaries, biosphere reserves, etc.
- **It allows the private partner to use the heritage site for branding and publicity purposes**, subject to certain guidelines and restrictions.
- It provides a graded recognition system for the private partner, based on their performance and contribution to the heritage site. The recognition levels are bronze, silver, gold and platinum.
- **It has a transparent and competitive bidding process for selecting the private partner**, with an emphasis on their vision, plan and capacity.

Significance

- It enhances the quality and accessibility of heritage sites, by providing better amenities, facilities and services for visitors.
- It increases the awareness and appreciation of heritage among the public, especially the youth, by creating a sense of ownership and responsibility.
- It generates employment and income opportunities for local communities, by creating linkages with tourism, handicrafts, hospitality and other sectors.
- It fosters a culture of conservation and sustainability, by adopting best practices and standards for heritage management.
- It showcases India's diverse and rich heritage to the world, by attracting more domestic and foreign tourists.

Challenges

- The scheme requires a high level of coordination and cooperation among various stakeholders, such as the central government, state governments, local bodies, private partners, civil society groups, etc.
  - This may pose challenges in terms of communication, decision-making and conflict resolution.
- It may **face resistance from some sections of society**, who may perceive it as a threat to their identity, culture or religion. This may lead to protests or vandalism at some heritage sites.
- It may encounter legal or regulatory hurdles, such as land ownership issues, environmental clearances, heritage protection laws, etc. This may delay or hamper the implementation of some projects.
- It may lack **adequate monitoring and evaluation mechanisms**, to ensure that the private partner adheres to the agreed terms and conditions, and delivers the expected outcomes. This may affect the quality and accountability of the scheme.
- The scheme has been met with mixed reactions from various stakeholders. Some have welcomed it as a positive step towards preserving and promoting India's rich cultural

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heritage, while others have raised concerns about the possible commercialization and privatization of public assets. Some experts have also questioned the criteria and transparency of selecting the Monument Mitras and the sites for adoption.

Steps need to be taken to ensure the success and sustainability of the scheme

Strengthening the institutional framework

- Strengthening the institutional framework and governance structure of the scheme, by establishing clear roles and responsibilities for each stakeholder, creating a dedicated nodal agency or authority for coordination and oversight, and developing standard operating procedures and guidelines for implementation and management.

Enhancing the participation

- Enhancing the participation and engagement of local communities and stakeholders in the scheme, by conducting regular consultations and feedback sessions, creating platforms for dialogue and collaboration, and ensuring social inclusion and equity in benefits sharing.

Addressing the legal or regulatory issues

- Addressing the legal or regulatory issues related to the scheme, by simplifying or streamlining the processes for obtaining clearances or approvals, harmonizing or updating the relevant laws or policies to suit the needs of the scheme.

Monitoring and evaluation system

- Develop a robust monitoring and evaluation system for the scheme, by setting clear indicators and targets for each project, collecting data and information on inputs, outputs and outcomes regularly using digital tools or platforms

Conclusion

- The Adopt a Heritage scheme is a unique initiative that showcases the collaborative spirit of the government and the private sector in preserving and promoting India's rich cultural heritage. The scheme not only enhances the tourism potential and attractiveness of these sites but also instils a sense of pride and ownership among the citizens. The scheme is expected to contribute to the socio-economic development of the local communities and regions around these sites, as well as to the overall growth of the tourism sector in India.

Thirukkural

Context

- Indian Prime Minister Narendra Modi and his Papua New Guinea counterpart James Marape jointly released the Tamil classic 'Thirukkural' in the Tok Pisin language on May 22, 2023.

Details

- The book is a translation of the ancient Tamil work by Poet Thiruvalluvar, which contains 1330 couplets on various topics such as ethics, politics, economics and love.
- The book aims to bring Indian thought and culture closer to the people of Papua New Guinea, where Tok Pisin is the official language.

Thirukkural

- The Thirukkural is regarded as one of the finest works of Tamil literature and a masterpiece of human wisdom. It has been compared to the Bible, Paradise Lost and the works of Plato by scholars and admirers.
- Thiruvalluvar's **Tirukkural is divided into three books:**
  - Aram (virtue)
  - Porul (government and society)
  - Kamam (love)
- The book contains 1330 couplets, which are divided into 133 sections of 10 couplets each.
- The couplets are concise, elegant and profound, expressing complex ideas in simple language.
- It covers a wide range of subjects such as friendship, family, wealth, justice, charity, gratitude, happiness, sorrow, anger, lust, etc. **They also provide practical guidance for personal and social conduct.**
- It is considered one of the finest works of wisdom literature in the world and has been translated into many languages.

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Thiruvalluvar

- The life **and times of Thiruvalluvar are shrouded in mystery**. He is believed to have lived sometime between the 1st century BC and the 8th century AD, but there is no consensus on his exact date or place of birth.
- He may have been a Jain ascetic who worked as a weaver in Mylapore, a part of present-day Chennai. However, his religious affiliation is also disputed, as he has been claimed by Buddhists, Shaivites and Dravidian groups as their own.
- He transcended the boundaries of caste, creed and religion with his universal message of morality and compassion.
- He **contributed the Tirukkural or 'Kural' to the Sangam literature.**
- Thiruvalluvar's teachings have influenced and inspired countless poets, philosophers and leaders across time and space.
- He is venerated as a great sage and a cultural icon by the Tamils and others who admire his wisdom. He is also honoured with statues, temples and festivals in his name.

Conclusion

- Thiruvalluvar's influence on Tamil culture and literature is immense. He is revered as a great sage and a source of inspiration for generations of poets, philosophers and leaders. His Tirukkural has been translated into many languages and has been widely studied and commented upon by scholars from various disciplines. He is also honoured with statues, temples and festivals in his name.

Sangam Literature

- Sangam literature is a collection of ancient Tamil works that were composed by poets belonging to the Tamil Sangam, an association of scholars and writers who lived in different periods and places under the support of the Pandyan kings.
- The Sangam literature reflects the social and cultural aspects of life in Tamil Nadu around the first century CE.
- It covers various topics such as politics, war, charity, trade, worship, agriculture, and so on.
- The Sangam literature comprises the oldest Tamil treatise (the Tolkappiyam), the ten long poems (Pattupattu), the eight sets of poems (Ettutogai), the eighteen minor works (Padinenkilkanakku), and the three epics.

8. 4 1 MAINS QUESTION AND 5 MCQS

Q1. What are the main objectives, challenges and benefits of the Adopt a Heritage scheme for India's heritage conservation and tourism development?

Answer:

The Adopt a Heritage scheme is a novel project launched by the Ministry of Tourism in India, in partnership with the Ministry of Culture, the Archaeological Survey of India (ASI), and various public and private stakeholders. The scheme aims to enhance the tourist experience and promote the rich cultural heritage of India by developing and maintaining world-class amenities and facilities at selected monuments and heritage sites across the country.

The main objectives of the scheme are:

- To provide basic and advanced amenities such as cleanliness, public conveniences, drinking water, ease of access, signage, illumination, etc. at heritage sites.
- To ensure quality and inclusive service delivery for tourists through active

participation of private and public sector entities, known as Monument Mitras.
- To introduce sustainable development practices and innovation at heritage sites to increase awareness and appreciation of the culture and heritage of India.
- To enhance the tourism potential and economic benefits of heritage sites by increasing footfall, visibility, and accessibility.

The scheme faces some challenges in its implementation, such as:

- The lack of clarity and coordination among various stakeholders involved in the scheme, such as the ASI, state governments, local bodies, Monument Mitras, etc.
- The legal and regulatory hurdles in transferring the management and maintenance of heritage sites to private entities, especially in cases where the sites are protected under various laws and acts.
- The potential risk of commercialization and exploitation of heritage sites by private entities, which may compromise the authenticity and integrity of the monuments and their surroundings.
- The possible resistance and opposition from local communities and civil society groups may perceive the scheme as a threat to their rights and interests in the heritage sites.

The scheme offers several benefits for India's heritage conservation and tourism development, such as:

- The improvement of infrastructure and amenities at heritage sites will attract more domestic and foreign tourists, thereby generating more revenue and employment opportunities for the local economy.
- The involvement of private entities will bring in more expertise, resources, innovation, and technology to enhance the quality and efficiency of service delivery at heritage sites.
- The scheme will create a sense of ownership and responsibility among the Monument Mitras and the public towards the preservation and promotion of India's cultural heritage.
- The scheme will showcase India's diverse and rich heritage to the world, thereby enhancing its image and reputation as a tourist destination.
- The Adopt a Heritage scheme is a commendable initiative that seeks to leverage the potential of India's heritage sites for tourism development while ensuring their conservation and protection. The scheme can be a model for other countries to follow in promoting their cultural heritage. However, the scheme also requires careful planning, monitoring, evaluation, and stakeholder participation to ensure its success and sustainability.

Q2. Consider the following statements:

1. Thrissur Pooram is an important festival that takes place every year in Karnataka.
2. Channapatna toys are wooden toys that are made in Andhra Pradesh.
3. Tawang Monastery is the largest monastery in India.

How many of the above statements is/are correct?

A) Only 1
B) Only 2
C) Only 3
D) All
Answer: A

EXPLANATION

Statement 1 is Incorrect: *Thrissur Pooram is a Hindu festival that takes place every year in the month of Medam (April-May) at the Vadakkunnathan Temple in Thrissur City, Kerala.*

The origin of Thrissur Pooram dates back to the late 18th century, when the ruler of Cochin, Rama Varma SakthanThampuran, unified the 10 temples around Vadakkunnathan Temple and organized a collective festival for them. The festival is held on the day when the moon rises with the Pooram star in the Malayalam calendar.

The main participants of the festival are two groups of temples, called Thiruvambadi and Paramekkavu, who compete with each other in various aspects of the festival. Despite being a Hindu festival, the Thrissur Pooram is attended by various sections of Kerala society.

Statement 2 is Incorrect: *Channapatna toys are wooden toys that*

are made in the town of Channapatna in Karnataka. They are known for their bright colours, intricate designs and eco-friendly materials. These toys have a history of over two centuries and are recognized as a geographical indication (GI) by the Government of India.

The origin of Channapatna toys can be traced back to the reign of Tipu Sultan, the ruler of Mysore in the 18th century. He invited artisans from Persia to train the local craftsmen in the art of making wooden toys. The craft flourished under the patronage of Tipu Sultan and his successors, and soon Channapatna became a hub of toy production.

Statement 3 is correct: *Tawang Monastery is the largest monastery in India and the second largest in the world after the Potala Palace in Tibet. It is located in the Tawang district of Arunachal Pradesh. The monastery was founded in the 17th century by Merak Lama Lodre Gyatso, a disciple of the 5th Dalai Lama, and belongs to the Gelug school of Tibetan Buddhism.*

It is also known as Gaden Namgyal Lhatse, which means "the divine paradise of complete victory". The main attraction of the monastery is the three-storeyed assembly hall, which houses a 26-foot-high gilded statue of Buddha Shakyamuni, along with statues of other deities and lamas. The monastery is not only a place of worship and learning but also a cultural and social centre for the local people.

Q3. Consider the following statements about the "Adopt a Heritage scheme"

1. It is currently implemented by the Tourism Ministry.
2. The companies that enter into agreements will be called "Monument Chaukidar" and will be responsible for building, operating and maintaining tourism infrastructure at the sites.
3. It allows the private partner to use the heritage site for branding and publicity purposes.

How many of the above statements is/are incorrect?

A) Only 1
B) Only 2
C) Only 3
D) All
Answer: B
Explanation

Statements 1 and 2 are incorrect: *The Adopt a Heritage scheme, in which firms are asked to adopt a heritage site for its maintenance and upkeep, has now been modified after certain sites found it difficult with a lack of takers in previous attempts. The revised version of the scheme will involve handing over around 1,000 monuments to the private sector for their upkeep under the control of the Archaeological Survey of India (ASI).*

The companies that enter into such agreements will be called "Monument Mitras" and will be responsible for building, operating and maintaining tourism infrastructure at the sites. The scheme, which was previously implemented by the tourism ministry, will now be carried out by the culture ministry.

Statement 3 is correct: *It is based on a public-private partnership (PPP) model, where the government provides the basic infrastructure and facilities, while the private partner brings in the expertise, resources and innovation. It covers not only monuments and archaeological sites, but also natural heritage sites such as national parks, wildlife sanctuaries, biosphere reserves, etc. It allows the private partner to use the heritage site for branding and publicity purposes, subject to certain guidelines and restrictions. It has a transparent and competitive bidding process for selecting the private partner, with an emphasis on their vision, plan and capacity.*

Q4. Consider the following statements:

1. National Gallery of Modern Art was established in 1954 by the Union Ministry of Education.
2. Sengol was a symbol of authority and legitimacy that was conferred by holy men to the kings of the Satavahanas dynasty.
3. Sangam literature is a collection of ancient Tamil works that were composed by poets belonging to the Kanada Sangam.

How many of the above statements are incorrect?

A) Only 1
B) Only 2
C) Only 3
D) All
Answer: D
Explanation

Statement 1 is incorrect: *National Gallery of Modern Art is one of the premier museums in India, showcasing a collection of more than 17,000 paintings, sculptures, prints, and photographs by Indian and international artists. It was established in 1954 by the Ministry of Culture and is housed in a former palace of the Maharaja of Jaipur. The museum has three branches: one in New Delhi, one in Mumbai, and one in Bengaluru.*

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Statement 2 is incorrect: *The word Sengol comes from the Tamil word "Semmai" which means righteousness. It was a symbol of authority and legitimacy that was conferred by Hindu holy men to the kings of the Chola dynasty, one of the most powerful and influential empires in South India. It was a five feet long sceptre that had a golden orb at the top, with a carving of Nandi, the bull that is sacred to Lord Shiva. It was handed over to the new king with an order to rule his subjects fairly and justly, according to the principles of Dharma.*

Statement 3 is incorrect: *Sangam literature is a collection of ancient Tamil works that were composed by poets belonging to the Tamil Sangam, an association of scholars and writers who lived in different periods and places under the support of the Pandyan kings. The Sangam literature reflects the social and cultural aspects of life in Tamil Nadu around the first century CE. It covers various topics such as politics, war, charity, trade, worship, agriculture, and so on.*

Q5. Consider the following statements about Satavahanas:

1. The Satavahanas were the first native rulers to establish an empire in the Deccan region, after the decline of the Gupta Empire.
2. They had a centralized administration and a well-organized army and navy.
3. They imposed a uniform system of administration or culture.
4. They were among the first Indian rulers to issue coins with their portraits.

How many of the above statements is/are correct?

A) Only 1
B) Only 2
C) Only 3
D) All
Answer: B
Explanation

Statement 1 is incorrect: The Satavahana dynasty was an ancient Indian dynasty that ruled over large parts of southern India from the late 2nd century BCE to the early 3rd century CE. They were also known as the Andhras in the Puranas, the ancient Hindu scriptures. The Satavahanas were the first native rulers to establish an empire in the Deccan region, after the decline of the Mauryan Empire. The origin and homeland of the Satavahanas are uncertain, but some scholars suggest that they belonged to the Andhra tribe and came from the eastern coast of India.

Statement 2 is correct: The Satavahanas had different capital cities at different times, such as Pratishthana (Paithan) and Amaravati (Dharanikota). They had a centralized administration and a well-organized army and navy. The empire was divided into several provinces or aharas, each governed by a provincial governor or amatya. The amatyas were appointed by the king and were responsible for collecting taxes, maintaining law and order, and administering justice. The administration was influenced by the local customs and traditions of the different regions under their rule.

Statement 3 is incorrect: The king was the supreme authority and the source of law and justice. He maintained a large army and navy to protect his territory and expand his influence. He also maintained diplomatic relations with foreign powers such as the Indo-Greeks, the Parthians, the Kushans and the Romans. They respected the autonomy and diversity of their subjects and did not impose a uniform system of administration or culture. They allowed the local communities to follow their laws, religions and languages. They also encouraged the development of regional arts and crafts such as pottery, sculpture, painting and architecture.

Statement 4 is correct: The Satavahanas were among the first Indian rulers to issue coins with their portraits, a practice that started with GautamiputraSatakarni, one of their most famous kings. Their coins were made of copper, silver, lead, and potin, and came in different shapes such as round, square, and rectangular. The coins had various symbols and motifs on them, such as elephants, horses, lions, ships, chaityas (Buddhist shrines), Ujjain symbols (a cross with four circles at the ends), and Brahmi inscriptions in the Prakrit language. They issued coins in various metals and denominations, bearing their names and titles, as well as symbols of their religion and culture.

Q6. Consider the following statements about Gopal Krishna Gokhale:

1. He became a professor of history and political economy at Fergusson College in Pune.
2. He was a disciple of Mahadev Govind Ranade.
3. He founded the Servants of India Society in 1905.
4. He supported the extremist faction within the Congress led by Bal Gangadhar Tilak.

How many of the above statements is/are correct?

A) Only 1
B) Only 2
C) Only 3

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D) All

Answer: C

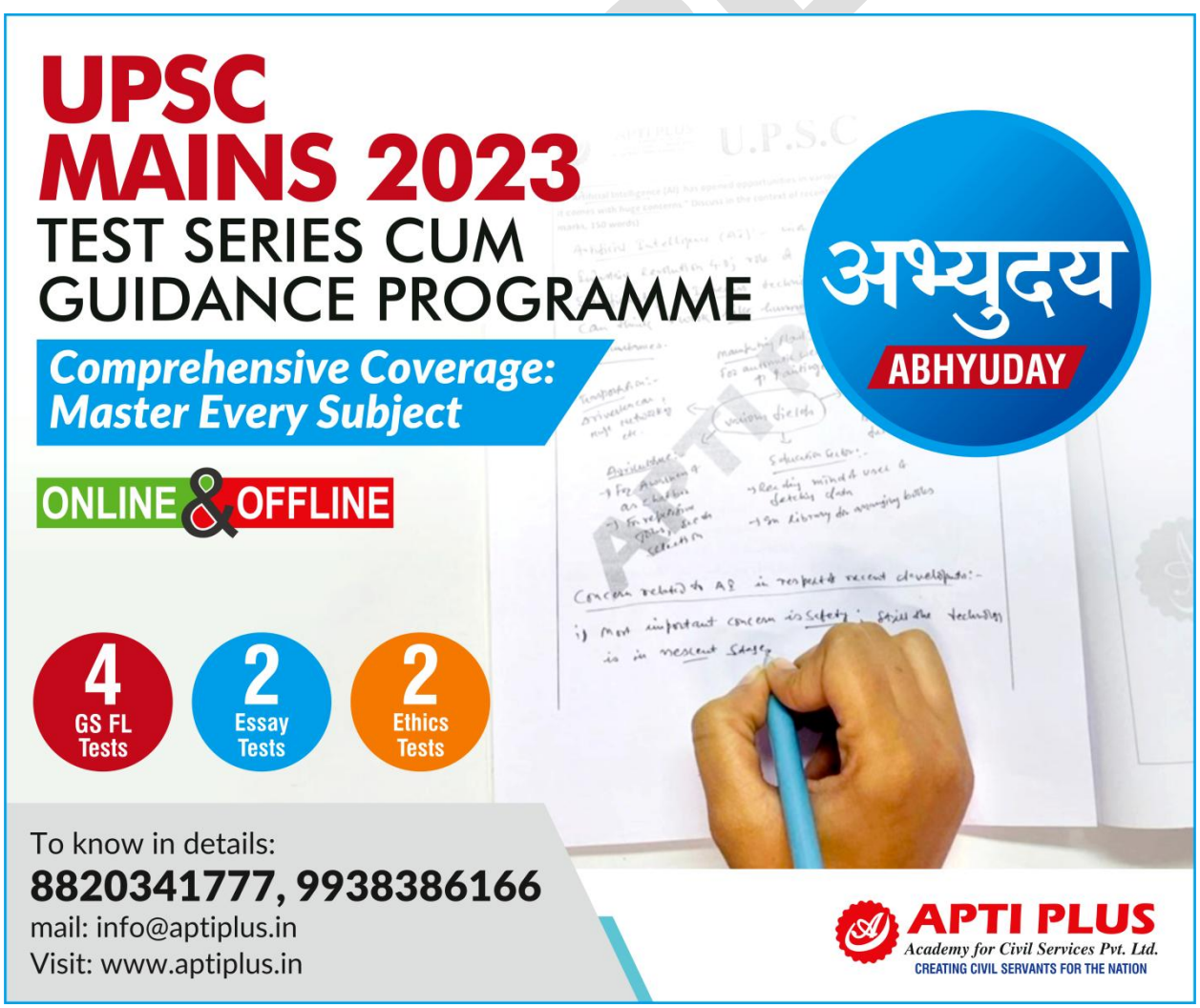
EXPLANATION

Statement 1 is correct: Gopal Krishna Gokhale was a prominent social reformer and political leader who played a vital role in the Indian independence movement. He was born in a village in Ratnagiri district of Maharashtra. He received his education at Elphinstone College in Mumbai, where he was influenced by the liberal ideas of John Stuart Mill and Edmund Burke. He became a professor of history and political economy at Fergusson College in Pune.

Statement 2 is correct: Gokhale was a disciple of Mahadev Govind Ranade, a moderate nationalist who advocated social reforms and constitutional methods of agitation. He was a moderate leader who believed in constitutional reforms and gradual progress towards self-government. He advocated for the rights of Indians in education, civil service, and representation in the legislative councils. He also supported social reforms such as the abolition of child marriage and untouchability. He promoted women's rights, untouchability eradication, and religious harmony.

Statement 3 is correct: Gokhale founded the Servants of India Society in 1905, a voluntary organization dedicated to the upliftment of the poor and the oppressed. He established the Deccan Education Society in 1984, which aimed to provide quality education to the masses. The Hitavada is an English daily newspaper circulating mainly in Central parts of India was Founded in 1911 by Gopal Krishna Gokhale.

Statement 4 is incorrect: Gokhale joined Congress in 1989. He was known for his eloquence, integrity, and diplomacy. He opposed the extremist faction within the Congress led by Bal Gangadhar Tilak, who advocated violent resistance and boycott of British goods and institutions. Gokhale believed in cooperation and dialogue with the British government and sought to achieve self-government through gradual reforms.



9. GEOGRAPHY

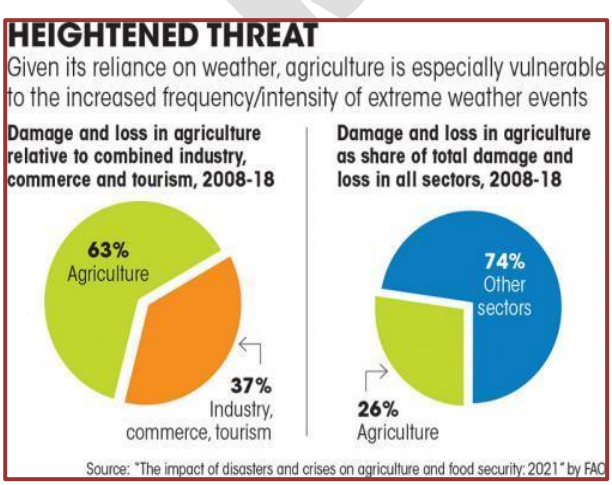
9. 1 HYBRID SOLAR ECLIPSE

Context

- Unseasonal rain in India have once again highlighted the vulnerabilities of our agricultural sector.

Details

- While rain is generally seen as a blessing, unseasonal rains can be a curse for farmers already reeling under the impact of low crop prices, rising input costs, and changing weather patterns.
- The recent unseasonal rain has not only affected the standing crops but has also impacted the post-harvest crops, which can lead to rise in prices of perishable commodities such as vegetables and fruits.
- This can have a cascading effect on the overall inflationary trend.
- In recent weeks, India has been experiencing unexpected rain showers, particularly in the northern and western regions.
- The abrupt change in climate has been attributed to the Western Disturbance, a weather phenomenon that occurs every year.
- During the months of March and April, India experienced six western disturbances, which experts believe could be the reason for the unusual weather patterns in May.



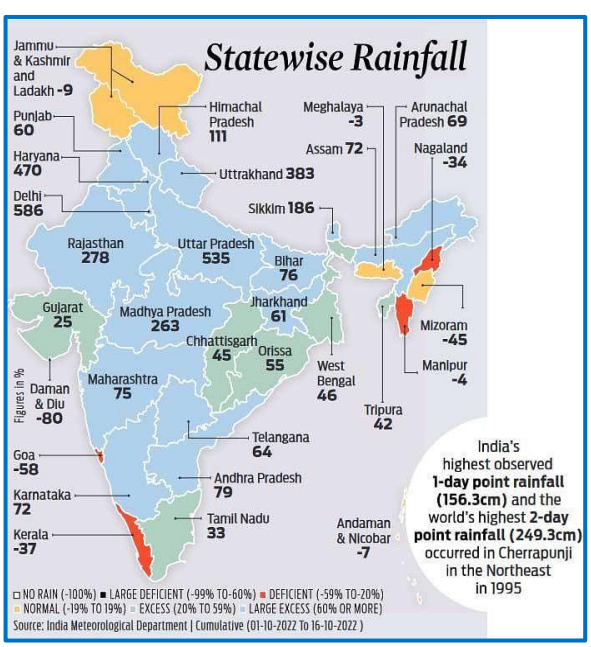
Causes of Unseasonal Rain

Western Disturbance:

- The Western Disturbance is an area of low pressure that forms over the Mediterranean Sea and moves east towards the Indian subcontinent.
- It is known to bring heavy rain and snowfall to the northern regions of India, especially in the winter months.

Impact of El Niño:

- El Niño is a phenomenon characterized by the warming of the ocean surface in the central and eastern tropical Pacific Ocean that can affect weather patterns globally.
- This could potentially worsen rainfall patterns not only in India but also in other parts of the world.
- In southern India, an anticyclonic circulation has formed, resulting in dry weather conditions in that region.
- This has created a pressure gradient that has contributed to the formation of a cyclonic circulation over Haryana and Punjab, resulting in precipitation across northern and western India.



Impact of global warming:

- Climate change has caused a warming of the oceans, which in turn has caused changes in atmospheric circulation patterns.
- These changes can lead to extreme weather events, such as heavy rains and droughts.

Impact of La Nina:

- La Nina is a weather phenomenon that occurs when cool water from the eastern Pacific Ocean flows westward. This can result in excess rainfall in some regions, including unseasonal rain.

Anthropogenetic activity:

- Human activities such as deforestation, urbanization, and pollution can also contribute to unseasonal rain.
- Deforestation can disrupt the water cycle, while urbanization and pollution can affect the microclimate, resulting in unseasonal rain

Impacts of Unseasonal Rains

Social impacts

- The social impact of unseasonal rains is significant, especially on vulnerable sectors of society, such as small farmers, day labourers, and migrant workers.
- These groups are already struggling to make ends meet, and crop failures due to unseasonal rains may push them further into poverty.

Agricultural impacts

- Unseasonal rains can have a significant impact on various sectors of the economy, especially the agricultural sector, which is highly dependent on weather patterns.
- Crop losses due to unseasonal rains can cause an increase in the prices of basic products, which affects people's consumption patterns.

> - The nation-wide average rainfall in 1–18 March was 49.2 mm, 197 per cent above normal. The average rainfall for the whole of March was 61.1 mm, nearly double the normal, making March 2015 the wettest in 48 years.

Economic impacts

- The construction sector is also affected, as unseasonal rains can disrupt construction activities and cause prices for raw materials such as cement and steel to rise.

Construction sector

- The construction sector can see a further rise in prices of key raw materials such as cement and steel due to the disruption caused by unseasonal rains.

Consumption pattern

- In addition, people's consumption patterns can also get impacted by the rise in prices of essential commodities, leading to a fall in the overall demand for non-essential goods and services.

Way forward

- To address these issues, there is a need for a multi-pronged approach that involves both short- and long-term measures:

In the short term:

- The Centre and States can waive farm loans , provide compensation for crop loss, and supply seeds and fertilisers at subsidised rates.
- The Minimum Support Price could also be increased as short-term measure.

In the long term:

- There is a need for structural reforms in the agricultural sector that can make it more resilient to the changing weather patterns.
- This can involve measures such as promoting crop diversification, encouraging the use of modern technologies and farming practices, and strengthening the supply chain infrastructure to reduce wastage and post-harvest losses.

Coordination between Centre and State:

- Moreover, the issue of unseasonal rains also highlights the larger issue of climate change.
- India needs to take a proactive approach towards mitigating its impact.
- This requires a coordinated effort between the Centre and States, civil society organisations, and the private sector.

Government measures

- The government has launched several initiatives such as the P**radhan Mantri Fasal Bima Yojana (Prime Minister's Crop Insurance Scheme)** and the **Pradhan Mantri Krishi Sinchai Yojana(Prime Minister's Agricultural Irrigation Scheme)** to address the concerns of farmers.
- **The Soil Health Card Scheme** provides farmers with a comprehensive report on the nutrient status of their soil and recommends corrective measures.
- **This can help farmers optimise their use of fertilisers, reduce wastage**, and improve soil health.
- The government has also launched the **Pradhan Mantri Krishi Sinchai Yojana**, which aims to boost irrigation infrastructure and promote water-use efficiency.
    - This can help farmers optimise their use of water resources, improve crop yields, and reduce the risk of crop failure due to droughts or water scarcity.

Conclusion

- Unseasonal rain has a significant political impact as well, especially in the context of the upcoming state and national elections.
- The ruling political party often faces criticism from the opposition for not doing enough to address the concerns of farmers. This leads to a **political blame game,** with each party trying to score points over the other.
- Moreover, **there is also a need for greater coordination between the central and state governments**.
- The Centre can provide financial and technical support to the State governments to address farmers' concerns, while the States can take the lead in implementing the initiatives at the ground level.

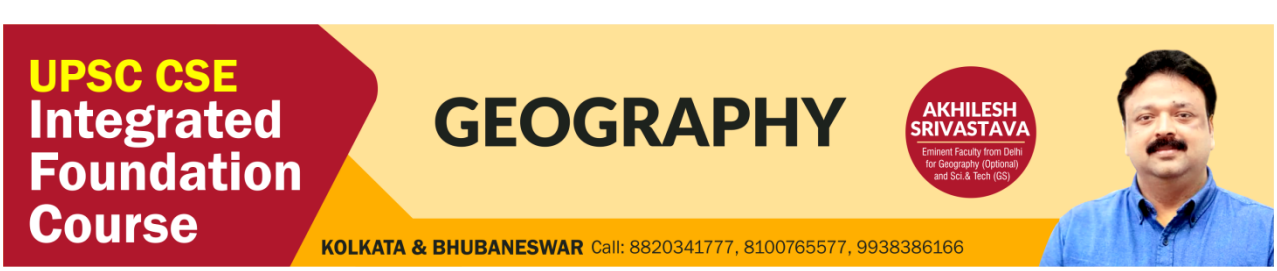
9. 2 CYCLONE

Context

- The Indian Meteorological Department, IMD has issued a warning that a cyclonic circulation is likely to develop over the Southeast Bay of Bengal.

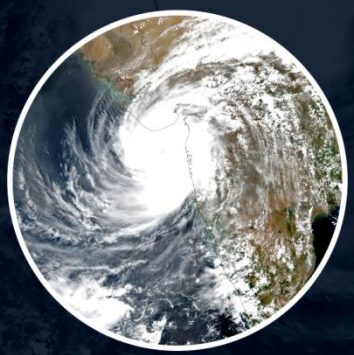
Details

- Under its influence, a low-pressure area is expected to form over the same region on Sunday, which may develop into a depression by 8th May.
- The system is expected to intensify into a cyclonic storm, moving nearly northwards towards the central Bay of Bengal.
- The wind speed is also expected to increase, with squally weather reaching 40 to 50 kilometers per hour gusting to 60 kmph over the Southeast Bay of Bengal and adjoining areas of Andaman and Nicobar Islands.
- It has advised fishermen, small ships and boats not to venture into the Southeast Bay of Bengal and adjoining areas.
- The IMD has urged people to remain alert and take all necessary precautions to ensure their safety during this time.



CYCLONE

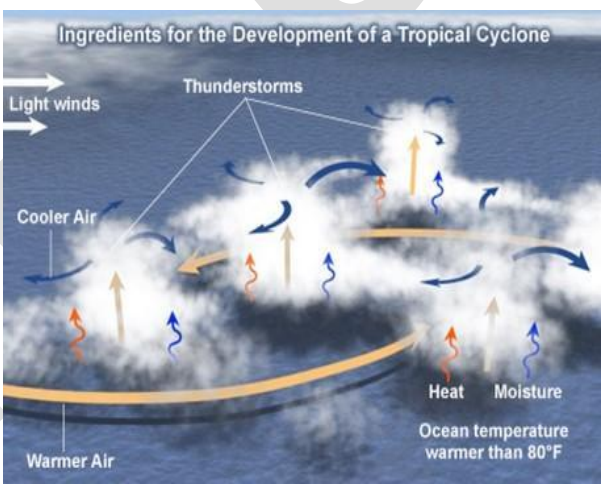
About
- A cyclone is a large-scale air mass that rotates around a strong center of low atmospheric pressure. Cyclones are usually accompanied by violent storms and bad weather.



Types
- The air circulates inward in an anticlockwise direction in the Northern hemisphere and clockwise in the Southern hemisphere.
- Cyclones are classified as:
  - Extra tropical cyclones (also called temperate cyclones); and
  - Tropical cyclones

What are Tropical Cyclones?

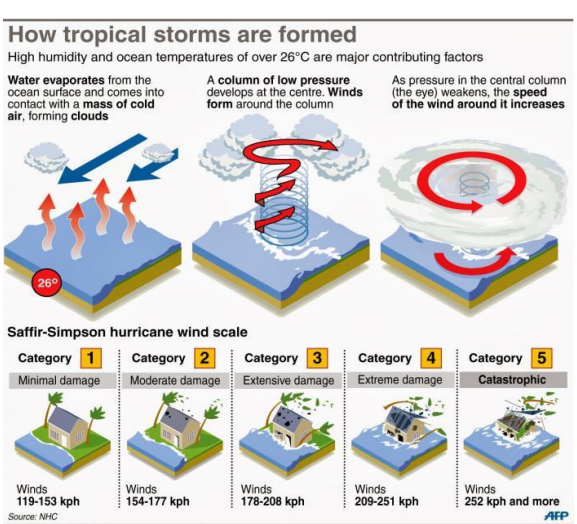
- Cyclones that develop in the regions **between the Tropic of Capricorn and Tropic of Cancer** are called tropical cyclones.
- Tropical cyclones are intense circular storms that **originate over warm tropical oceans.** They rotate in a counter clockwise direction in the Northern Hemisphere and in a clockwise direction in the Southern Hemisphere.
- They are characterized by **low atmospheric pressure, high winds, and heavy rain**.
- Drawing **energy from the sea surface** a tropical cyclones maintains its strength as long as it remains over warm water.



Note: Extra tropical cyclones occur in temperate zones and high latitude regions, though they are known to originate in the Polar Regions.

Conditions for development of Tropical Cyclones

- There are six main requirements for tropical cyclogenesis:
  - Sufficiently warm sea surface temperatures (higher than 26° C),
  - Atmospheric instability,
  - High humidity in the lower to middle levels of the troposphere,
  - Enough Coriolis force to sustain a low pressure center,
  - A pre-existing low level focus or disturbance, and
  - Low vertical wind shear

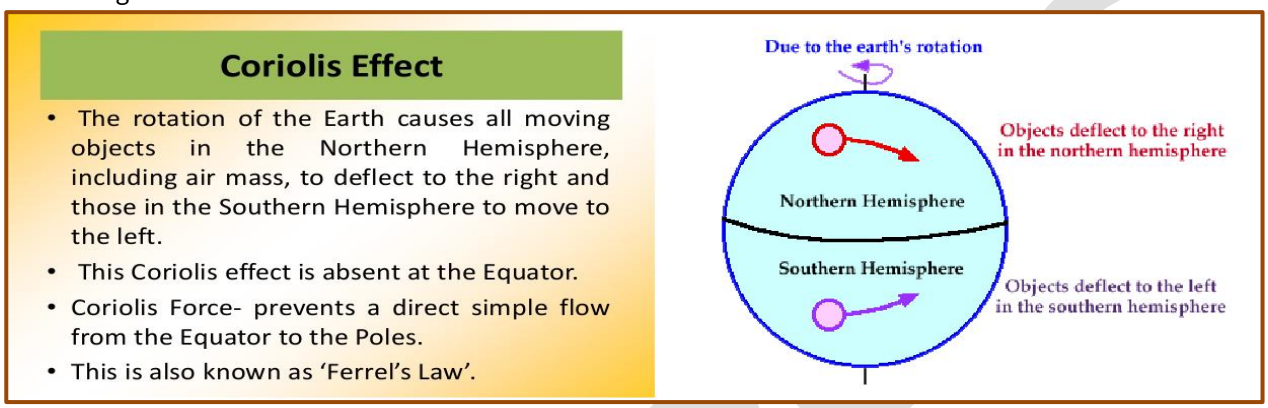


Note: Extra tropical cyclones occur in temperate zones and high latitude regions, though they are known to originate in the Polar Regions.

Key Concepts

Coriolis effect

- The Coriolis effect is the apparent acceleration of a moving body as a result of the Earth's rotation. It makes things (like planes or currents of air) traveling long distances around the Earth appear to move at a curve as opposed to a straight line. The Coriolis effect is an important determinant of wind direction on a global scale.

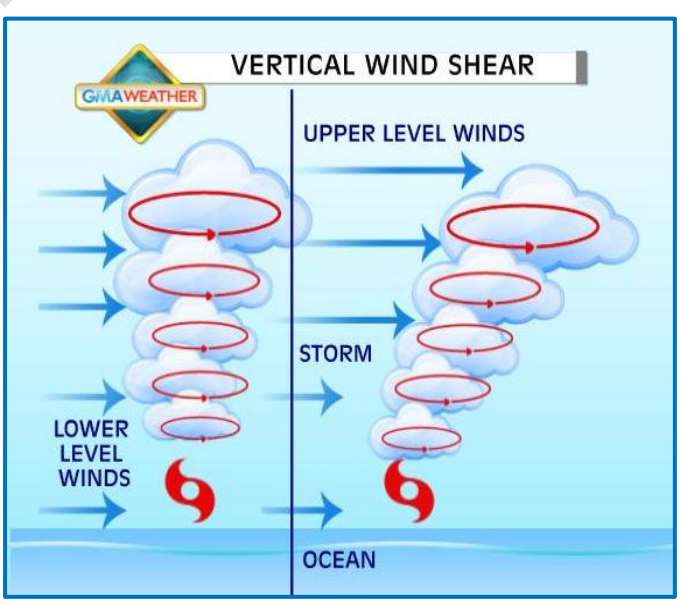


Wind shear

- Wind shear sometimes referred to as wind gradient, occurs when there is a change in the direction or speed of wind usually at short distances. Atmospheric wind shear is normally described as either vertical or horizontal wind shear.
- Vertical wind shear is a change in wind speed or direction of winds at increasing heights in the atmosphere. Horizontal wind shear is a change in wind speed with change in lateral position for a given altitude.

Atmospheric Instability

- Atmospheric stability determines whether or not air will rise and cause storms; sink and cause clear skies; or essentially do nothing.
- If an air parcel is warmer than its surrounding environment, then it will be less dense than its surroundings and will rise like a hot air balloon. This is Unstable Air and has the potential for creating thunder storms if it contains enough water vapor.
- If an air parcel is cooler than its surrounding environment, then it will be denser than its environment and will sink. Think of this situation as a pebble sinking in water. This is Stable Air which generally leads to clear skies.

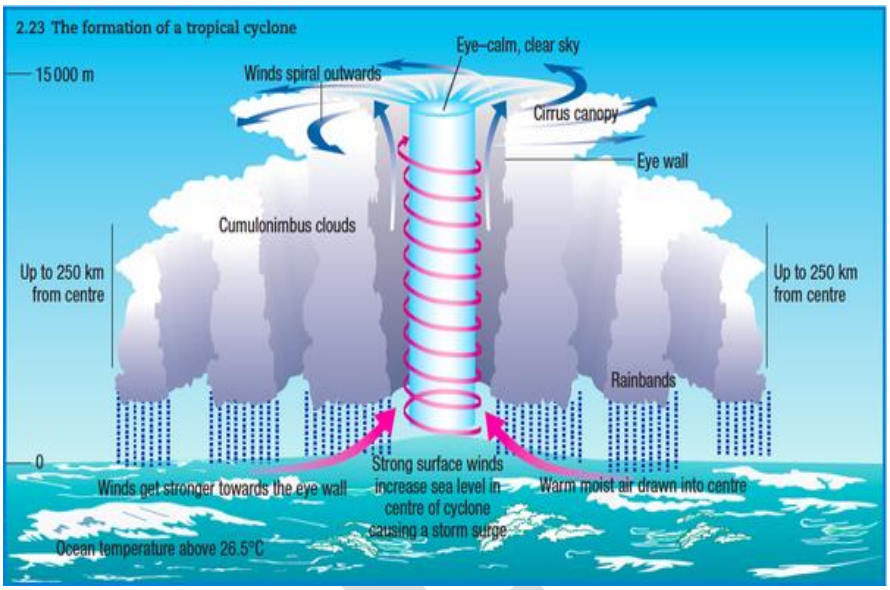


- If an air parcel is the same temperature as its surrounding environment, then the parcel will not move of its own accord. This is Neutral Air.

Structure of a Tropical Cyclone

The eye

- The eye of the storm is the centre.
- It is the area of sinking air at the center of circulation.
- The eye is characterized by clear skies and calm weather.
- It is circular in shape and in size ranges from 8 - 200 km.



The eyewall

- The eyewall is the band around the eye with maximum wind speed, heaviest rainfall and greatest height. It is responsible for the maximum damage caused by a cyclone.

Rainbands

- These are Curved bands of clouds and thunderstorms that trail away from the eye wall in a spiral fashion.
- These bands are capable of producing heavy bursts of rain and wind.
- There are sometimes gaps in between spiral rain bands where no rain or wind is found.

How are the cyclones named?

- If the speed of a cyclone is more than 34 nautical miles per hour then it becomes necessary to give it a special name.
- In 2000, a group of nations called WMO/ESCAP (World Meteorological Organisation/United Nations Economic and Social Commission for Asia and the Pacific), decided to start naming cyclones in the region.
- The group comprised **of Bangladesh, India, the Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand.**
- The WMO/ESCAP expanded to include five more countries in 2018 — **Iran, Qatar, Saudi Arabia, United Arab Emirates and Yemen.**
- After each country sends in suggestions, the WMO/ESCAP Panel on Tropical Cyclones (PTC) finalizes the list.
- These lists are used sequentially and they **are not rotated every few years.**

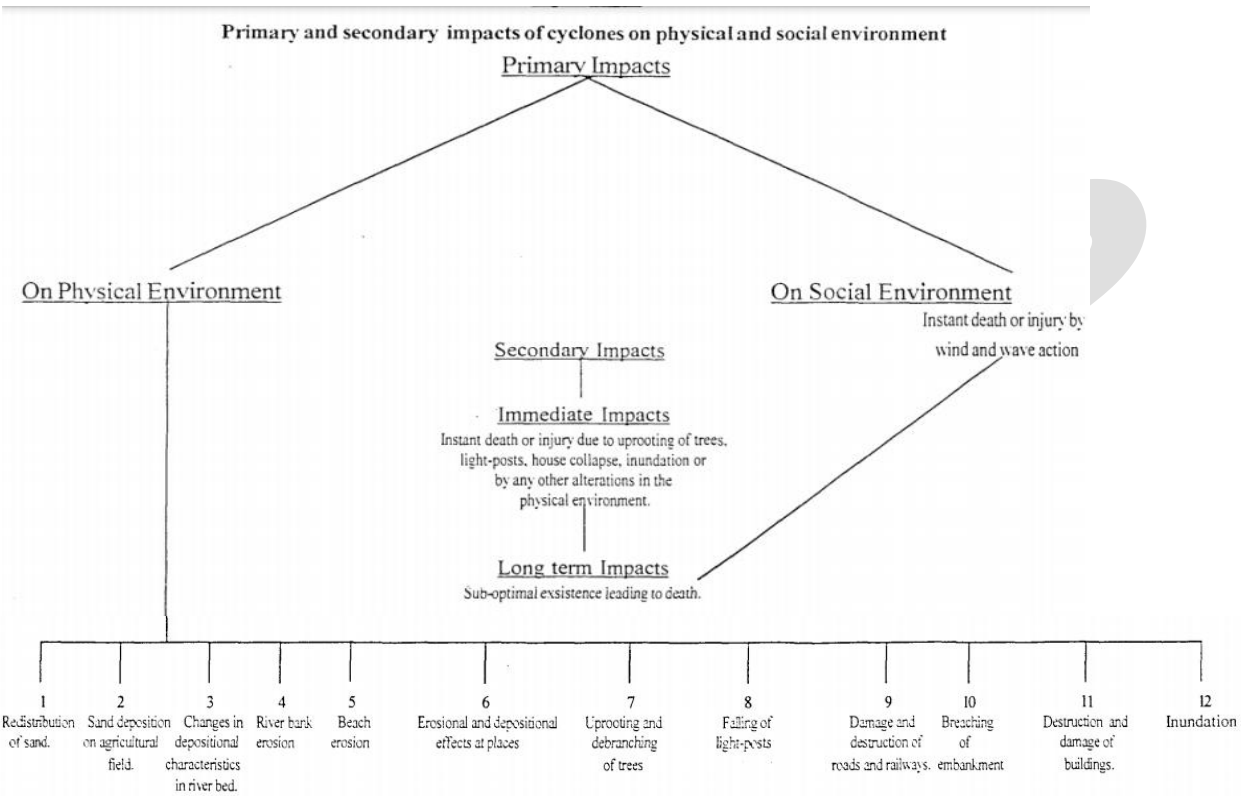
Tropical Cyclones and India

- India is the place in the North Indian Ocean that is most vulnerable to getting hit by tropical cyclones, from the east or from the west.
- On average, 5-6 tropical cyclones make landfall in India each year.
- The subcontinent with a long coastline of 8041

kilometres is exposed to **nearly 10 per cent of the world's tropical cyclones.**

- Of these, majority of cyclones have their initial genesis over the Bay of Bengal and strike the East coast of India.

Impact of Cyclones



Issues in Cyclone mitigation

- Cyclone Amphan is the latest reminder that India needs to upgrade its disaster management systems.
- In 2019, India saw five million new internal displacements caused by climate disasters.

Challenges and Recommendations

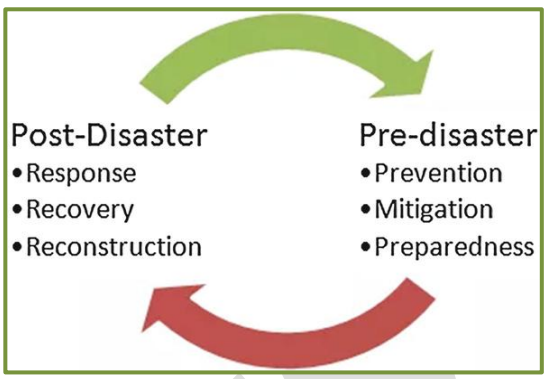
Challenges of Cyclone Risk Reduction Strategies	Recommendations
❖ Limitations of cyclone early warning system	❖ Development of cyclone early warning system
❖ Inadequate number of cyclone shelters	❖ Building of adequate number of cyclone shelters
❖ Absence of cyclone resilient housing	❖ Capacity development of people living in the coastal areas
❖ Absence of social safety net	❖ Long term cyclone mitigation measures like cyclone resilient housing, expansion of bio-shield, development of cyclone contingency plan
❖ Lack of medical coverage	

Other issues

- **Focus on Post disaster management rather than Pre-Disaster management**
- There should be a fine balance between the two.
- **Lack of coordination:** There is a lack of coordination between the agencies of state government, central government with the local communities.
- **Communication issues:** Information and Cyclone warnings are not properly disseminated between the concerned agencies. This results in delayed efforts as was evident in Ockhi cyclone disaster.

Lack of coordination between federal, state/district and local government agencies
Logistics of evacuation (transport services)
Public awareness and response
Lack of training
Poor sectoral collaboration

Way ahead



- There is an immense need to change this attitude and develop judicious and efficient ways of managing and conserving our natural resources. 'Resilience' is the key to adaptive development advantages and this is possible by integrating disaster risk mitigation into the policy making and regulations.
- Capacity building is another essential step to accomplish the goals of disaster risk reduction.
- Though technological developments provide significant scope and opportunities, indigenous and traditional skills and technologies that contribute to a community's environment and disaster resilience in a simpler but effective manner have been practised since ages in various regions of this country

9. 3 GROUNDWATER EXPLOITATION

Context

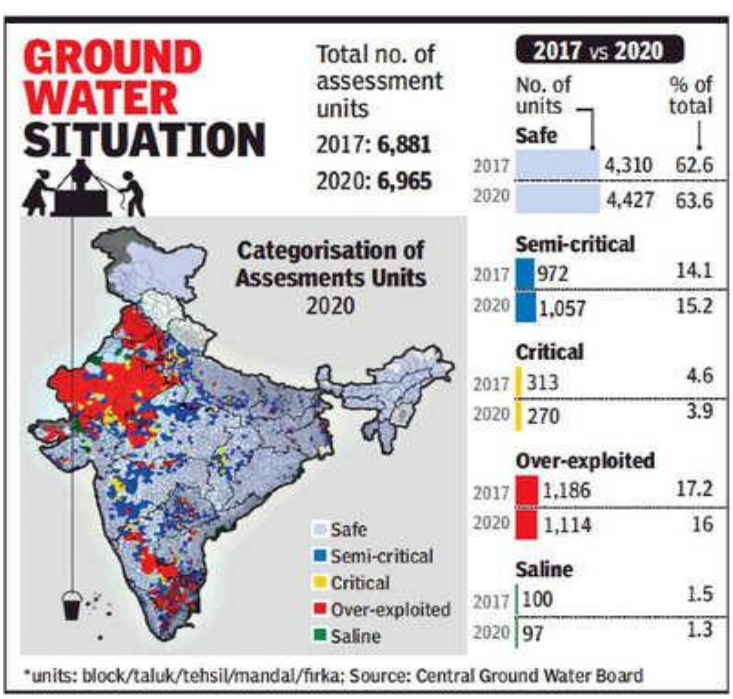
- Unseasonal rain in India has once again highlighted the vulnerabilities of our agricultural sector.

Details

- Agricultural practices in northwest India are heavily dependent on groundwater withdrawal.
- With limited monsoon rain, the groundwater table is precariously low, show data gathered for years by the Central Ground Water Board (CGWB).
- In Punjab, for instance, 76% of the groundwater blocks are 'over exploited'. In Chandigarh it is 64% and about 50% in Delhi. This means that more groundwater than can be recharged is extracted.

> - "Over time, when the underlying aquifers (deep water channels that are stores of percolated water) aren't recharged, they run dry and the layers of soil and rock above them start to sink,"

- **About 14 per cent of India's 7,089 groundwater assessment units across states have been categorised as over-exploited, while another four per cent fall in the critical category, according to the latest report of the Central Ground Water Board (CGWB).**
- **An "over-exploited" category indicates groundwater extraction exceeding the annually replenishable groundwater recharge, while the "critical" category is one where the stage of groundwater extraction is between 90-100 per cent. The overall stage of groundwater extraction in the country is 60.08 per cent.**
- **Our country's economy primarily rests on agriculture. Agriculture contributes 40 percent to the GDP of the country,**



and accounts for 60 percent of the total export revenues.

- **Also, 60 percent of the country's population is engaged in agriculture and related work.**

About Groundwater

- Groundwater is the water that seeps into the ground due to rain and other sources and keeps accumulating underneath.
- It plays an important role in ensuring food security and agricultural sustainability in the country.
- The advent of Green Revolution in the 1970s saw a significant increase in the use of ground water, which has so far continued, rather increased, resulting in decrease and decline in water level, wells and other irrigation sources in the long term.
- Apart from this, ground water is no longer potable due to contamination of water sources.

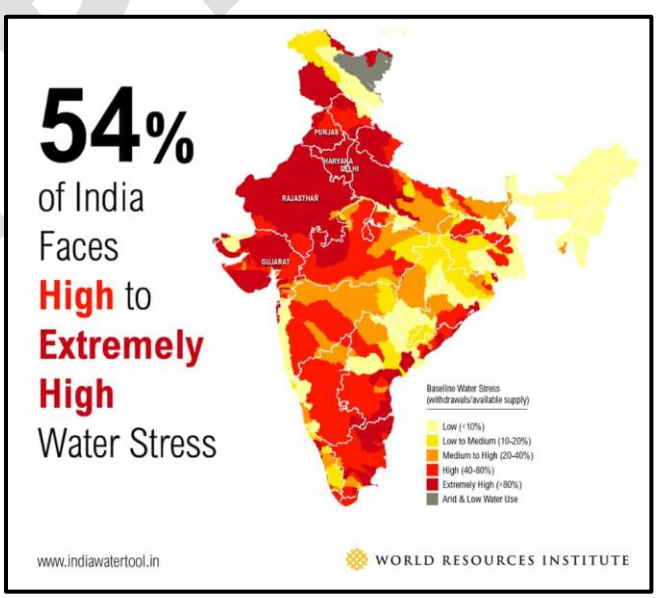
Causes of Ground water exploitation

Increase in Irrigated Area

- One of the major reasons for water crisis in the country is that as the area of irrigated land has increased, the level of groundwater has declined.
  - Currently, India has a gross irrigated crop area of 82.6 million hectares (215.6 million acres), which is the largest in the world.
- As the population increases, the water storage capacity of ponds decreases. In fact, wells and ponds go dry after the water decreases at the ground level.

Indiscriminate water-tapping

- Unbridled tapping of ground water has made the situation even more alarming.
- Due to the uninterrupted exploitation of ground water by deep wells and tube wells to meet the shortage of water, the level of ground water is continuously decreasing.
- In fact, whatever amount of water is recharged into the ground, even more of it is extracted.



Decreasing jungles

- Trees hold the rain water and slowly drop it to the ground, absorbing up to 18 inches of precipitation before gradually releasing it to natural channels and recharging ground water.
- But the way the forests are being destroyed on the Earth, the problem of ground water depletion is becoming even graver.
- It is believed that for the last 150 years, the forest equivalent to the area of Greece is disappearing from the Earth every year.

Melting glaciers

- The rain cycle has gone haywire in India, due to melting of glaciers. In fact, the amount of rainfall has reduced over the years.
- The Gangotri glacier has retreated by over 3 kilometres since 1817 from its original place; it is expected to become even smaller by the end of the 21st century.

For example: Around 7 km behind Kedarnath Dham, the Chorwadi glacier has also been retreating. According to scientists, glaciers of the Himalayan region have been melting at an average rate of 131.4 square kilometres (50 square miles) per year.

Global warming

- Ground water plays a key role in sustaining ecosystems. Due to global warming, the threat of climate change is very much on the horizon.
- The fear is that by 2050, half of the world's population will be destroyed due to hunger, water and disease.

Politics of subsidy

- Politics of subsidies has led to volatile extraction of ground water leading to its scarcity.
- Farmer tends to use water for irrigation without any restriction due to availability of cheap, subsidized electricity, thanks to politics of populism.

Consequences and Effects of Groundwater Depletion

Contamination of ground water

- According to the Report of Central Ground Water Board, more than half of India's groundwater is contaminated.
- The report says that at least 276 districts have a high level of fluoride, nitrate is above the safe level in 387 districts, and 86 districts have a high level of arsenic.
- Bad environmental management system leads to the discharge of toxic water with the result that surface and underground water sources – used for irrigation and domestic operations – have been contaminated.

Drying up rivers

- Major rivers are gradually drying up with excessive tapping of water.
- Earlier, Yamuna's water was reach Delhi all through the year, now due to the digging of deep tube-well near the rivers in Haryana and Uttar Pradesh, enough water is not able to reach Delhi.
- After releasing water from Hathinikund barrage, water is completely absorbed in the soil up to 20-25 km, impeding its flow.

Impact on living organism

- Fisheries and turtles are dying in the Yamuna. Pilgrims are unable to find water for bathing. The trees on the river bank are dying. Environment of entire areas is being destroyed.

Fuelling migration:

- Ground water level is declining in major states of the country. The mountains are facing acute water crisis. Water bodies are drying up.
- According to the report of Central Water Board, the way water level is dipping; the day is not far when water will have to be imported.

Prevention and Solutions of Groundwater Depletion

Limit of water-extraction

- To deal with excessive tapping of ground water, maximum depth should be determined in each area. Drilling up to 400 feet can be carried. Prior to it, deep tubewells should be filled up, so that water can be removed only up to 400 feet. Thus, water level will not fall below this.

Change in crop-patterns:

- Ground water can be preserved by the determination of crop cycle. Low water consuming crops should be grown in not so water-rich areas and where there is high intake of water, high-water consumption crops should be cultivated.
- Crop should be allowed to grow as per the availability of water in every area.

Protection and enrichment of water resources:

- In addition, groundwater centres should be set up in each state. Illegal exploitation of ground water should be banned.
- Tapping the inner water of the land for personal use without any information can cause problems in the future.
- Water is needed for drinking as well as irrigation, industry, power generation etc. For proper utilization of available water resources for this, their protection and enrichment are also important.

APTI PLUS

Building reservoirs

- There is a need to deepen old reservoirs along with building new reservoirs. Besides increasing the depth of boring of new tubewells, there is a need to coordinate between geologists and engineers at the time of selection of space.

Government measures

Atal Bhujal Yojana

- Atal Bhujal Yojana (Atal Jal) is being implemented in certain water stressed areas of the country, which includes activities like preparation of water security plan at Gram Panchayat level in participatory mode by involving communities to use available groundwater and surface water in an efficient manner.

Per Drop More Crop

- Department of Agriculture & Farmers Welfare (DA & FW) is implementing Per Drop More Crop component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) which is operational from 2015-16

Jal Shakti Abhiyan

- Government of India launched Jal Shakti Abhiyan (JSA) in 2019, a time-bound campaign with a mission mode approach intended to improve water availability including groundwater conditions in the water-stressed blocks of 256 districts in India.

'Master Plan for Artificial Recharge to Groundwater - 2020'

- Central Ground Water Board (CGWB), in consultation with States/UTs, has prepared 'Master Plan for Artificial Recharge to Groundwater - 2020'. The Master Plan – 2020 is a macro level plan indicating various structures for the different terrain conditions of the country.

Conclusion

- Water is the biggest need of the future. If efforts are not made to ensure availability of ground water along with purity of its sources, then we can never be certain that enough water will be saved for our future generations.
- Among other measures outlined above, community involvement should be ensured in the fight against ground water pollution through public awareness and capacity building campaign.

9. 4 LUDHIANA GAS LEAK TRAGEDY

Context

- An eight-member fact finding committee constituted by National Green Tribunal (NGT) visited Giaspura locality of the city and started its probe to find out the reasons behind the gas leak that led to death of 11 persons.

Details

- An NDRF team detected high levels of **hydrogen sulphide** in the area.
- Preliminary investigations suggest sudden dumping of some chemical from an industrial unit into the civic sewage line set off a reaction.
- A magisterial inquiry has been ordered into the incident, and a case under section 304 has been registered against unidentified persons.

Neurotoxins	• Neurotoxins are poisonous substances which can directly affect the nervous system. • Neurotoxicity occurs when exposure to natural or man-made toxic substances alters the normal activity of the nervous system. • These substances can eventually disrupt or even kill neurons or nerve cells, which are important for

	transmitting and processing signals in the brain and other parts of the nervous system. **Impact:** • They directly attack the respiratory tract of the body, thereby overpowering the oxygen concentration of the body and then the nervous system as well.
Neurotoxic gases	• Methane, hydrogen sulphide, carbon monoxide and carbon dioxide are common neurotoxic gases. • While methane and carbon monoxide are odourless gases, hydrogen sulphide has a pungent odour and in higher concentration it can be fatal for humans.

Causes of gas leak

- A **National Disaster Response Force team** along with experts reached the site to determine the cause and source of the leak.
- According to Punjab Chief Minister Bhagwant Mann, the leak was from a factory.
- **According to The Tribune** newspaper, the district administration released a statement stating that high levels of hydrogen sulphide gas were detected in the area.
    - Hydrogen sulfide is a chemical compound with the formula **H2S**.
    - It is a **colorless chalcogen-hydride gas.**
    - It is **poisonous, corrosive, and flammable**, with trace amounts in ambient atmosphere having a characteristic foul odor of rotten eggs.
    - **Hydrogen sulfide is slightly denser than air.** A mixture of H2S and air can be explosive.
    - In general, hydrogen sulfide **acts as a reducing agent.**
- One official had speculated that the gas may have spread from manholes.
- Ludhiana Deputy Commissioner Surabhi Malik was quoted by the PTI news agency as saying that samples would be collected from manholes, adding that it was possible that some chemical had reacted with methane in the manholes.

Regulatory Framework for the management of Chemical Disasters:

Rules governing the safety of the workers employed in factories and industries:

- Indian Factories Act, 1948.
- The Dock Workers (Safety, Health & Welfare) Act, 1986.
- They fall within the domain of labour legislation.
- These legislations regulate the working conditions of individuals employed at sites of industrial activity and prescribe rules for the maintenance of site safety.

The mitigation of chemical accidents, once they have already occurred, is regulated by:

- Chemical Accidents (Emergency Planning, Preparedness and Response) (CAEPPR) Rules, 1996.
- Disaster Management Act of 2005.

Environment Protection Act, 1986

- Gives powers to the central government to undertake measures for improving the environment and set standards and inspect industrial units.

The National Environment Appellate Authority Act, 1997

- Under which the National Environment Appellate Authority can hear appeals regarding the restriction of areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards under the Environment (Protection) Act, 1986.

Other rules and Acts:

- National Green Tribunal, 2010, provides for the establishment of a National Green Tribunal for effective and expeditious disposal of cases related to environmental protection and conservation of forests.
- Explosive Act 1884 and explosive Rules 2008
- The Petroleum Act, of 1934
- The Insecticide Act, of 1968
- Factories Act, 1948 and Rules made there under Factories Act and Factories Amendment Act 1987.
- Static & Mobile Pressure Vessels Rules, 1981

Industrial gas leaks in India

- Gas leaks from industrial plants are not uncommon in India.
- **In 2020**, a gas leak at a chemical plant caused the deaths of at least 12 individuals in the **city of Visakhapatnam**, located in the state of Andhra Pradesh.
- **In 1984**, a chemical leak at a pesticide plant in the central **city of Bhopal** resulted in the deaths of thousands of people, marking the **world's worst industrial disaster to date.**

National Green Tribunal

- It is a **Statutory Body under National Green Tribunal (NGT) Act 2010**.
- It ensures environmental justice.
- It is **not bound by the Code of Civil Procedure**; it is guided by principles of natural justice.
- Disposal of applications within 6 months.
- **Currently, 10 expert members and 10 judicial members** (the Act allows for up to 20 of each).
- Only a Judge of the Supreme Court or a Chief Justice of a High Court Can be appointed as Chairman.

Environment protection Act 1986

- The EPA 1986 came into force in all of India in November of 1986, under an official notification.
- **The Act contains 26 sections divided into 4 chapters.** The Act has its genesis in Indian Constitution's Article 48(A) and Article 51(A)g.
- The Act is special for many reasons.
- **First, it has the sole aim of ensuring the protection of the environment**, the prevention and reduction of environmental pollution and provides the authority to take strict action against perpetrators.
- **Second, it is an Act that takes precedence over other Acts**. This means that if an offence is committed that is liable to be booked under multiple legislation including this Act, the EPA 1986 will be given the highest priority.
- **Third, this Act forced the country to take note of environmental pollution** in a serious way.

9. 5 GLOBAL REPORT ON INTERNAL DISPLACEMENT 2023

Context

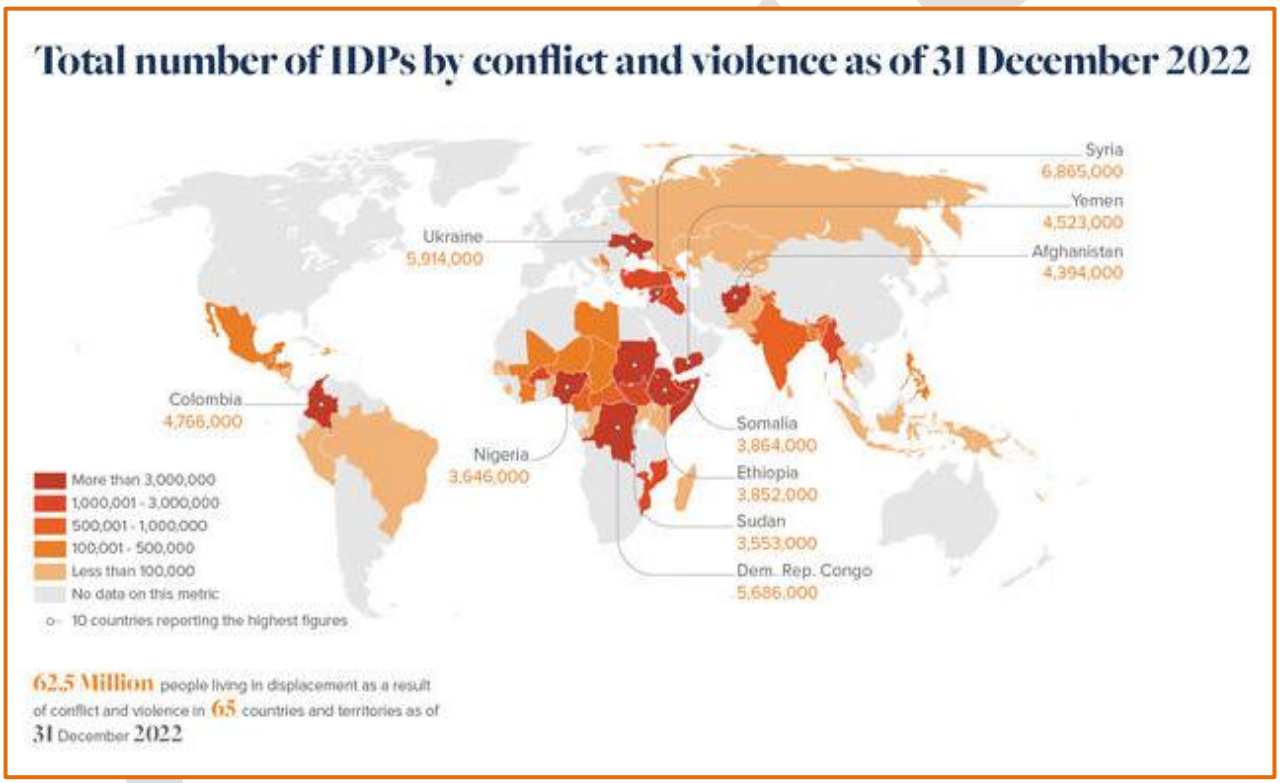
- According to the Global Report on Internal Displacement, in India, disasters were mostly weather-related and displaced 2.5 million people in 2022.

Details

- The number of people displaced by disasters rose by 40 per cent in 2022 than 2021. ***The Global Report on Internal Displacement 2023 (GRID-2023),*** the Internal Displacement Monitoring Centre's flagship annual report observed that 32.6 million people were displaced due to disasters.

- Of the total disaster displacement, 98 per cent were triggered by weather-related events like floods and storms. According to GRID-2023, "6 out of 10 disaster displacements were triggered by floods, suppressing storms for the first time since 2016.
- "According to the Guiding Principles on Internal Displacement, ***internally displaced persons*** *are "persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized border."*

- India recorded the fourth largest disaster displacement, with 2.5 million displacements. Pakistan had the highest number of disaster displacements in the world in 2022, at 8.16 million.
- The Philippines was at second rank and reported 5.44 million displacements; China at third rank with 3.63 million; and Nigeria at fifth rank with 2.4 million.
- The GRID-2023 attributes the increase in disasters, particularly weather-related, to the three-year-long La Niña. "(This is) largely the result of the effects of La Niña which continued for a third consecutive year.



Key highlights of the report

- The number of movements in which people fled in search of safety and shelter, sometimes more than once, was also unprecedented in 2022 with the figure of 60.9 million which was up 60 per cent from the previous year.
- The conflict in Ukraine triggered nearly 17 million displacements as people fled repeatedly from rapidly shifting frontlines, and monsoon floods in Pakistan triggered 8.2 million, accounting for a quarter of the year's global disaster displacement.
- Factors like food insecurity, climate change and escalating and protracted conflicts are adding new layers to this phenomenon.
- La Niña is the cooler than the normal phase of the El Niño Southern Oscillation (ENSO) phenomenon in the central and eastern equatorial Pacific Ocean.

- The "triple-dip" La Niña caused widespread disasters across the world. Disasters displaced 8.7 million people internally in 88 countries and territories as of December 31, 2022. "(This) led to record levels of flood displacement in countries including Pakistan, Nigeria and Brazil.
- In recent years, disasters have displaced more people than historically dominant reasons for conflicts and violence. This makes climate change — that leads to frequent weather-related disasters — the key driver of massive internal migration of people, who we popularly call "climate refugees".
- Since IDMC started monitoring disaster flows (excluding drought) in 2018 and its report published in 2019, this set of the population has been increasing. By the end of 2018, some 1.6 million people displaced by disasters were still in camps or places away from their homes.

India's key Findings

- In India, there are 9,29,318 displaced people. Out of this, the number of IDPs due to violence and conflict stood at 4,73,000 as of December 2020.
- Since Independence, India has time and again witnessed bouts of violent clashes amongst communities which have led to large-scale displacement -- exodus of the Kashmiri Pandits in 1989, the violence in the Northeast including the Nellie massacre of 1983, the exodus of Bru tribes from Mizoram in 1997, the Gujarat riots of 2002, the anti-Sikh riots of 1984, the Muzaffarnagar riots of 2013, and the recent clashes in Northeast Delhi.
- In 2022, the number of disaster displacements reduced by nearly half compared to the previous year, totalling 2.5 million. Floods triggered 96 per cent of them.
- In terms of conflict and violence, there is no systematic data collection on displacement in India. Figures totalled just over 1,000 in 2022, the result of localised events of intercommunal violence.

Mixed movement (also called mixed migration or mixed flow) is *"a movement in which a number of people are travelling together, generally in an irregular manner, using the same routes and means of transport, but for different reasons. People travelling as part of mixed movements have varying needs and profiles and may include asylum seekers, refugees, trafficked persons, unaccompanied / separated children, and migrants in an irregular situation.*

Factors for Internal Displacement in India

Political interference and internal conflicts:

- Since independence, north-east India has witnessed two major armed conflicts – the Naga movement and Assam movement.
- Jammu & Kashmir's war between state forces and militants, had led to mass exodus of the Kashmiri Pandits.

Identity based autonomy movement:

- Identity-based autonomy movements, such as in **Bodoland, Punjab, Gorkhaland and Ladakh**, have also led to violence and displacement.

Local violence and issues:

- Internal displacement has also arisen from **caste disputes** (as in Bihar and Uttar Pradesh), **religious fundamentalism** and the **'son-of-the soil policy** (aggressive denial of residency and employment rights to non-indigenous groups).

Environment induced displacement:

- In order to achieve rapid economic growth, India has invested in industrial projects, dams, roads, mines, power plants and new cities which have been made possible only through massive acquisition of land and subsequent displacement of people.

Challenges faced by internally displaced persons

- People forced to flee or leave their homes are generally subject to heightened vulnerability in a number of areas.
- Displaced persons suffer significantly higher rates of mortality than the general population.
- They also remain at high risk of physical attack, sexual assault and abduction, and frequently are deprived of adequate shelter, food and health services.

- The overwhelming majority of internally displaced persons are women and children who are especially at risk of abuse of their basic rights.

Consequences of displacement

Landlessness

- Expropriation of land removes the main foundation upon which people's productive systems, commercial activities, and livelihoods are constructed. This is the principal form of de-capitalization and pauperization of displaced people, as they lose both natural and human-made capital.

Joblessness:

- The risk of losing wage employment is very high both in urban ad rural displacements for those employed in enterprises, services, or agriculture. Yet, creating new jobs is difficult and requires substantial investment. Unemployment or underemployment among resettlers often endures long after physical relocation has been completed.

Marginalization:

- Marginalization occurs when families lose economic power and spiral on a "downward mobility" path. Many individuals cannot use their earlier acquired skills at the new location; human capital is lost or rendered inactive or obsolete.
- Economic marginalization is often accompanied by social and psychological marginalization, expressed in a drop in social status, in resettlers' loss of confidence in society and in themselves, a feeling of injustice, and deepened vulnerability.

Food Insecurity

- Forced uprooting increases the risk that people will fall into temporary or chronic undernourishment, defined as calorie-protein intake levels below the minimum necessary for normal growth and work.

Increased Morbidity and Mortality

- Massive population displacement threatens to cause serious decline in health levels. Displacement-induced social stress and psychological trauma are sometimes accompanied by the outbreak of relocation related illnesses, particularly parasitic and vector-borne diseases such as malaria and schistosomiasis.
- Unsafe water supply and improvised sewage systems increase vulnerability to epidemics and chronic diarrhea, dysentery, and so on. The weakest segments of the demographic spectrum—infants, children, and the elderly—are affected most strongly.

Way forward

- **Assist representatives of (potential) displaced communities** to assess conditions in potential areas of resettlement by supporting visits and by visiting areas of potential resettlement to independently assess conditions.
- **Convene consultations with leaders of (potential) displaced groups** prior to resettlement, ensuring representation of women and all-important segments of the displaced community to ensure that resettlement is fully informed.
- **Convene consultations among leaders of (potential) displaced communities,** local authorities, and international organizations involved with resettlement to ensure that the move will be conducted with safety and dignity.
- **Identify and help eliminate potential conflicts** between communities by convening consultations between internally displaced persons and populations residing in areas of resettlement, considering the needs of the resident as well as relocated populations in program design and taking steps to prevent stigmatization or resentment.
- **Disseminate information** about the rights of displaced persons during displacement to displaced persons and to relevant authorities.
- **Advocate with authorities for the protection of the rights of internally displaced persons** and provide support to local non-governmental organizations or other groups advocating for their rights.

Conclusion

- Development-induced displacement is problematic at best, even when a state has

the best interests of the entire population at heart. The effects can be catastrophic when such displacement occurs in the midst of conflict and human rights abuse, or when a state deliberately or arbitrarily targets some of its people to bear a disproportionate share of the costs of development and denies them a proper share of the benefits.

- Development is a right but it also carries risks to human life, livelihood, and dignity that must be avoided if it is to deserve the name.

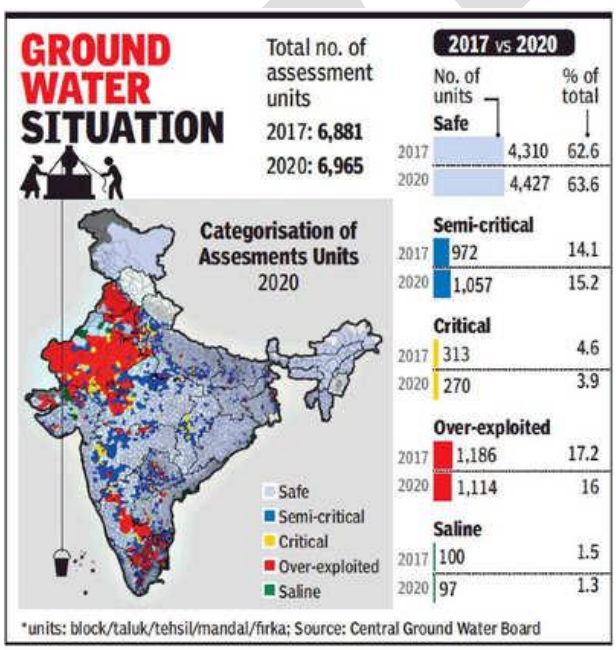
9. 6 1 MAINS QUESTION AND 5 MCQS

Q1. Groundwater exploitation is silently sinking the ground beneath India's feet. Elucidate.

Answer:

Groundwater is the water that seeps into the ground due to rain and other sources and keeps accumulating underneath. About 14 per cent of India's 7,089 groundwater assessment units across states have been categorised as over-exploited, while another four per cent fall in the critical category, according to the latest report of the Central Ground Water Board (CGWB).

- **An "over-exploited" category indicates groundwater extraction exceeding the annually replenishable groundwater recharge, while the "critical" category is one where the stage of groundwater extraction is between 90-100 per cent. The overall stage of groundwater extraction in the country is 60.08 per cent.**



Causes of Ground water exploitation

Increase in Irrigated Area:

- One of the major reasons for water crisis in the country is that as the area of irrigated land has increased, the level of groundwater has declined.

Indiscriminate water-tapping:

- Unbridled tapping of ground water has made the situation even more alarming.
- Due to the uninterrupted exploitation of ground water by deep wells and tube wells to meet the shortage of water, the level of ground water is continuously decreasing.

Decreasing jungles:

- Trees hold the rain water and slowly drop it to the ground, absorbing up to 18 inches of precipitation before gradually releasing it to natural channels and recharging ground water.

Government measures

Atal Bhujal Yojana

- Atal Bhujal Yojana (Atal Jal) is being implemented in certain water stressed areas of the country, which includes activities like preparation of water security plan at Gram Panchayat level in participatory mode by involving communities to use available groundwater and surface water in an efficient manner.

Per Drop More Crop

- Department of Agriculture & Farmers Welfare (DA & FW) is implementing Per Drop More Crop component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) which is operational from 2015-16

Jal Shakti Abhiyan

- Government of India launched Jal Shakti Abhiyan (JSA) in 2019, a time-bound

campaign with a mission mode approach intended to improve water availability including groundwater conditions in the water-stressed blocks of 256 districts in India.

Conclusion

- Water is the biggest need of the future. If efforts are not made to ensure availability of ground water along with purity of its sources, then we can never be certain that enough water will be saved for our future generations.
- Among other measures outlined above, community involvement should be ensured in the fight against ground water pollution through public awareness and capacity building campaign.

Q2. Which of the following statements are correct?

1. Hydrogen sulfide is slightly lighter than air.
2. It occurs in volcanic gases, natural gas deposits, and sometimes in well-drawn water.
3. Hydrogen sulfide is toxic to humans and most other animals by inhibiting cellular respiration.
4. In general, hydrogen sulfide acts as an oxidizing agent.

Select the correct answer using the code given below:

A. 1 and 2 only
B. 1, 3 and 4 only
C. 2 and 3 only
D. 1, 2, 3 and 4

Answer: C

EXPLANATION

- *Hydrogen sulfide is toxic to humans and most other animals by inhibiting cellular respiration. When it is inhaled or its salts are ingested in high amounts, damage to organs occurs rapidly with symptoms ranging from breathing difficulties to convulsions and death.*
- *Hydrogen sulfide is a chemical compound with the formula H2S.*
- *It is a colorless chalcogen-hydride gas.*
- *It is poisonous, corrosive, and flammable, with trace amounts in ambient atmosphere having a characteristic foul odor of rotten eggs.*
- *Hydrogen sulfide is slightly denser than air. A mixture of H2S and air can be explosive.* ***Hence statement 1 is incorrect.***
- *In general, hydrogen sulfide acts as a reducing agent.* ***Hence statement 4 is incorrect.***
- *It also occurs in volcanic gases, natural gas deposits, and sometimes in well-drawn water.* ***Hence statement 2 is correct.***
- *It can also be associated with animal farms, industrial plants, sewers or sewage treatment plants.*
- *Hydrogen sulfide is toxic to humans and most other animals by inhibiting cellular respiration. When it is inhaled or its salts are ingested in high amounts, damage to organs occurs rapidly with symptoms ranging from breathing difficulties to convulsions and death.* ***Hence statement 3 is correct.***

Q3. Which of the following statements about the Dal Lake is/are correct?

1. It is an urban lake, the second-largest lake in Ladakh.
2. The lake is located within a catchment area covering 316 square kilometres in the Zabarwan mountain valley.
3. The wetland is divided by causeways into four basins; Gagribal, Lokut Dal, Bod Dal and Nigeen.

Select the correct option using the code given below:

A. Only one
B. Only two
C. Only three
D. All of the above

Answer: B

EXPLANATION

- *Dal is a lake in Srinagar, the summer capital of Jammu and Kashmir.*
- *It is an urban lake, the second-largest lake in Jammu and Kashmir. It is variously known as the "Lake of Flowers", "Jewel in the crown of Kashmir" or "Srinagar's Jewel".* ***Hence statement 1 is incorrect.***
- *The lake is located within a catchment area covering 316 square kilometres in the Zabarwan mountain valley, in the foothills of the Shankaracharya Hill, which surrounds it on three sides.* ***Hence statement 2 is correct.***
- *The wetland is divided by causeways into four basins; Gagribal, Lokut Dal, Bod Dal and Nigeen.*
- *Lokut Dal and Bod Dal each have an island in the centre, known as Rupa Lank (or Char Chinari) and Sona Lank respectively.* ***Hence statement 3 is correct.***

Q4. Consider the following statements about the Spratly Island:

1. It is a disputed archipelago in the East China Sea.
2. The archipelago lies off the coasts of the Philippines, Malaysia, and southern Vietnam.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2
Answer: B
EXPLANATION

- The Spratly Islands are a disputed archipelago in the South China Sea. **Hence statement 1 is incorrect.**
- The archipelago lies off the coasts of the Philippines, Malaysia, and southern Vietnam. **Hence statement 2 is correct**.
- It is claimed in its entirety by China, Taiwan and Vietnam, while portions are claimed by Malaysia and the Philippines.
- The northeast part of the Spratly Islands is known as Dangerous Ground and is characterized by many low islands, sunken reefs, and degraded, sunken atolls with coral.
- Economic activity has included commercial fishing, shipping, guano mining, oil and gas exploitation, and more recently, tourism.

Q5. Consider the following statements:

1. Bara-lacha la is a high mountain pass in the Zanskar range.
2. The pass also acts as a water divide between the Bhaga river and the Yunam river.

Which of the above statements are correct?

a. Only 1
b. Only 2
c. Both 1 and 2
d. Neither 1 nor 2
Answer: d
EXPLANATION

BOTH ARE INCORRECT:

- *Bara-lacha la is a high mountain pass in the Zanskar range of Northern-India.*
- *It connects Lahaul district in Himachal Pradesh to Leh district in Ladakh.*
- *The two headwaters of the Chenab River, Chandra and Bhaga, originate near the Baralacha Pass.*
- *The Bhaga river originates from Surya taal lake, which is situated a few of kilometers from the pass towards Manali.*
- *The Chandra originates from glacier in this region. The native name of Chenab, "Chandrabhaga", represents the union of Chandra and Bhaga rivers downstream.*
- *The pass also acts as a water-divide between the Bhaga river and the Yunam river.*

Q6. Consider the following statements:

1. Niti Valley is a remote valley located in the northernmost region of Himachal Pradesh.
2. The Niti Pass was an ancient trade route between India and Tibet.

Which of the above statements is/are true?

A. Only 1
B. Only 2
C. Both 1 and 2
D. Neither 1 nor 2
Answer: b
EXPLANATION

- *Niti Valley is a remote valley located in the northernmost region of Uttarakhand, India at a height of 3, 600 m.* ***Hence statement 1 is incorrect.***
- *Nestled within the Nanda Devi Biosphere Reserve, it is close to the Chinese border and Niti is the last village in the valley before the border with south Tibet.* ***Hence statement 2 is correct***.
- *The Niti Pass was an ancient trade route between India and Tibet, and it was sealed after the 1962 Sino-Indian War.*
- *Since then, the border has remained sealed.*
- *The villages in the valley include Lata, Kaga, Dronagiri, Garpak, Malari, Bampa, Gamshali and Niti.*
- *They are mostly inhabited by Bhotiyas of Uttarakhand of Chamoli district, namely Marchas, a community of Mongoloid origin, and Tolcchas, both known as Rongpa.*

APTI PLUS

10. PLACES IN NEWS

10. 1 IN INDIA

KALI TIGER RESERVE

About

- Location: Kali Tiger Reserve is located in Uttara Kannada District of Karnataka State. Covering the taluks of Haliyal, Karwar and Joida, the Kali Tiger Reserve (KTR) is part of the Uttara Kannada district of Karnataka.
- It lies between latitudes 14° 57' 23.04" N; longitudes 74° 15' 7.56" East and latitude 15° 9' 56.16" North; longitude 74° 43' 10.56" East.
- The Tiger Reserve comprises of two important protected areas of the region viz., Dandeli Wildlife Sanctuary and Anshi National Park.
- Dandeli Wildlife Sanctuary (475.018 sq km) and Anshi National Park (339.866 sq km) are contiguous to each other and form a single tract of protected area located in biologically sensitive Western Ghats.
- The park is a habitat of Bengal tigers, black panthers and Indian elephants, amongst other distinctive fauna.
- The Kali River flows through the tiger reserve and is the lifeline of the ecosystem and hence the name. The tiger reserve is spread over an area of 1300 square kilometres.

PALGHAT GAP

About

- Location: Palakkad Gap or Palghat Gap is a low mountain pass in the Western Ghats between Coimbatore in Tamil Nadu and Palakkad in Kerala.
- It has an average elevation of 140 metres (460 ft) with a width of 24–30 kilometres (15–19 mi).
- The pass is located between the Nilgiri Hills to the north and Anaimalai Hills to the south.
- The Bharathappuzha river (River Ponnani) originates in the Palakkad Gap from rivulets and tributaries feeding from steep escarpment slopes along the flanks of the Ghats.

BARALACHA LA PASS

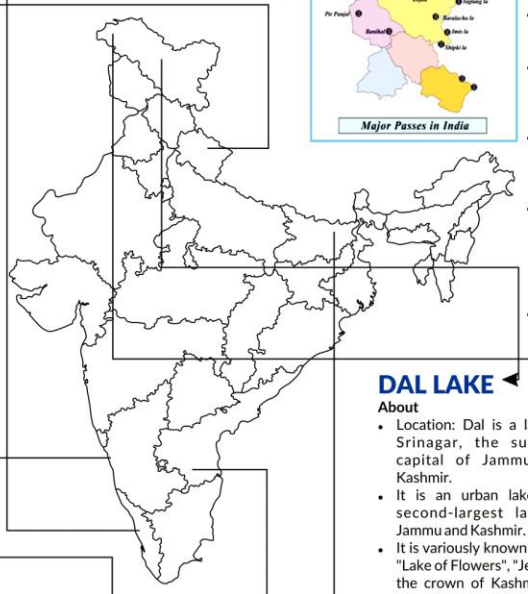
About

- Location: Bara-lacha la is a high mountain pass in the Zanskar range of Northern-India.
- It connects Lahaul district in Himachal Pradesh to Leh district in Ladakh.
- The two headwaters of the Chenab River, Chandra and Bhaga, originate near the Baralacha Pass.
- The Bhaga river originates from Surya taal lake, which is situated a few of kilometers from the pass towards Manali.
- The Chandra originates from glacier in this region. The native name of Chenab, "Chandrabhaga", represents the union of Chandra and Bhaga rivers downstream.
- The pass also acts as a water-divide between the Bhaga river and the Yunam river.

RAJAJI TIGER RESERVE

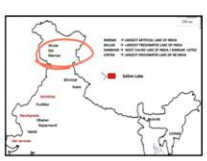
About

- Location: Rajaji Tiger Reserve is situated in the foothills of the Shivalik Range of Himalayas. Most of the land is covered by Sal forests.
- It is spread over 820 km2 and includes three districts of Uttarakhand: Haridwar, Dehradun and Pauri Garhwal. In 1983, three wildlife sanctuaries in the area namely, Chilla, Motichur and Rajaji were merged into one.
- The park is home to a diverse range of flora and fauna, including over 300 species of birds, 50 species of mammals, and numerous species of reptiles, amphibians, and fish. Some of the more notable animals that can be found in the park include tigers, leopards, elephants, sloth bears, and Indian gaur.



DAL LAKE

About



- Location: Dal is a lake in Srinagar, the summer capital of Jammu and Kashmir.
- It is an urban lake, the second-largest lake in Jammu and Kashmir.
- It is variously known as the "Lake of Flowers", "Jewel in the crown of Kashmir" or "Srinagar's Jewel".
- The lake is located within a catchment area covering 316 square kilometres in the Zabarwan mountain valley, in the foothills of the Shankaracharya Hill, which surrounds it on three sides.
- The wetland is divided by causeways into four basins; Gagribal, Lokut Dal, Bod Dal and Nigeen.
- Lokut Dal and Bod Dal each have an island in the centre, known as Rupa Lank (or Char Chinari) and Sona Lank respectively.
- Located on Bod Dal, the Sona Lank (Gold Island) overlooks the shrine of Hazratbal.

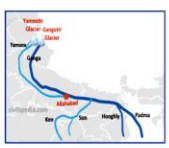
KOUNDINYA WILDLIFE SANCTUARY

About

- Location: It is a wildlife sanctuary and an elephant reserve situated in Andhra Pradesh, India.
- It is the only sanctuary in Andhra Pradesh with a population of Asian elephants, which migrated after 200 years from neighbouring regions.
- The habitat of Kaundinya sanctuary is rugged with high hills and deep valleys.
- The sanctuary has dry deciduous forests with thorny scrubs interspersed with trees.
- These forests have small ponds, tanks and the Kaindinya and Kaigal tributaries of Palar River.
- The sanctuary is situated in region where the Kolar Plateau ends and slopes down into the plains of Tamil Nadu creating many valleys and ghats.

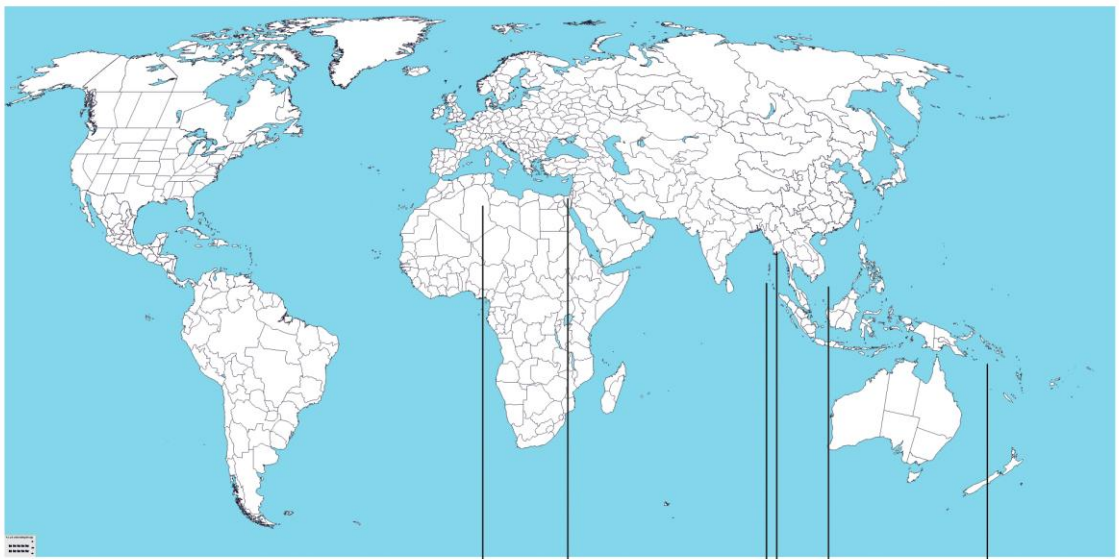
SON RIVER

About



- Location: It originates near Amarkantak Hill in Gaurela-Pendra-Marwahi district of Chhattisgarh and finally merges with the Ganges River near Patna in Bihar.
- The Sone parallels the Kaimur hills, flowing east-northeast through Uttar Pradesh, Jharkhand and Bihar states to join the Ganges just west of Patna.
- Geologically, the lower valley of the Son is an extension of the Narmada Valley, and the Kaimur Range an extension of the Vindhya Range.
- Arwal, Daudnagar, Deori, Rohtasgarh, Dehri, Sonbhadra and Bihta are some of the major cities situated on Sone River.
- It is a perennial river located in central India.
- The Sone River is the second-largest southern tributary of the Ganges after the Yamuna River.
- India's oldest river bridge Koilwar Bridge over Sone River connects Arrah with Patna.

10. 2 IN WORLD



KALADAN MULTI-MODAL TRANSIT TRANSPORT PROJECT

About

- Location: The Kaladan Road Project is connecting the eastern Indian seaport of Kolkata with Sittwe seaport in Rakhine State, Myanmar by sea.
- In Myanmar, it will then link Sittwe seaport to Paletwa in Chin State via the Kaladan river boat route, and then from Paletwa by road to Mizoram state in Northeast India.
- The route of the project around Paletwa and along the Kaladan river is troubled with Chin conflict, Rohingya conflict and militant groups such as Arakan Army and Arakan Rohingya Salvation Army (ARSA).
- The project has several sections combining multi-modes of transport:
  - Kolkata-Sittwe shipping route
  - Sittwe seaport to Paletwa inland jettyriver boat route
  - Paletwa inland jetty to Zorinpui road route in Myanmar
  - Zorinpui to Aizawl road route in India

GAZA STRIP

About

- Location: The Gaza Strip is densely populated, crammed with about 2 million Palestinians.
- It shares a border with Egypt to the south.
- The Hamas-ruled territory has been blockaded by Israel for nearly 15 years.
- The far bigger West Bank is on Israel's eastern border, along the bank of the Jordan river.

SPRATLY ISLANDS

About

- Location: The Spratly Islands are a disputed archipelago in the South China Sea.
- The archipelago lies off the coasts of the Philippines, Malaysia, and southern Vietnam.
- It is claimed in its entirety by China, Taiwan and Vietnam, while portions are claimed by Malaysia and the Philippines.
- The northeast part of the Spratly Islands is known as Dangerous Ground and is characterized by many low islands, sunken reefs, and degraded, sunken atolls with coral.
- Economic activity has included commercial fishing, shipping, guano mining, oil and gas exploitation, and more recently, tourism.

SAHEL REGION

About

- Location: Having a hot semi-arid climate, it stretches across the south-central latitudes of Northern Africa between the Atlantic Ocean and the Red Sea.
- The Sahel is a region in Africa.
- It is defined as the ecoclimatic and biogeographic realm of transition between the Sahara to the north and the Sudanian savanna to the south.
- The Sahel part of Africa includes – from west to east – parts of northern Senegal, southern Mauritania, central Mali, northern Burkina Faso, the extreme south of Algeria, Niger, the extreme north of Nigeria, Cameroon and Central African Republic, central Chad, central and southern Sudan, the extreme north of South Sudan, Eritrea and Ethiopia.

COCO ISLANDS

About

- Location: The Coco Islands are a small group of islands in the northeastern Bay of Bengal. They are part of the Yangon Region of Myanmar.
- The islands are located 414 km (257 mi) south of the city of Yangon. Coco Island group consists of five islands: four on Great Coco Reef and one on the Little Coco Reef.
- The Bay of Bengal lies to the west of the islands. The Andaman Sea lies to the east. The Burmese mainland is 250 kilometres (155 mi) to the north. The island of Preparis lies 77 km (48 mi) to the north-northeast of the Coco Islands.
- The Coco Islands consist of three main islands, namely Great Coco Island and the smaller Little Coco Island, separated by the Alexandra Channel, as well as Table Island, a third small island located near Great Coco Island.

PAPUA NEW GUINEA

About

- Location: New Guinea is the world's second-largest island, with an area of 785,753 km2.
- Located in Oceania in the southwestern Pacific Ocean, the island is separated from Australia by the Torres Strait, though both landmasses lie on the same continental shelf.
- Numerous smaller islands are located to the west and east.
- It is a country in Oceania that comprises the eastern half of the island of New Guinea and its offshore islands in Melanesia (a region of the southwestern Pacific Ocean north of Australia).
- Its capital, located along its southeastern coast, is Port Moresby.

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SARTHAK
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SUDHA
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PRADEEP
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ABHISHEK
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VISHNOI
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RITU
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RAMDENI
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AMIT
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RAKESH
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SOURAB
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DIMPY
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AMAR
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SARAH
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