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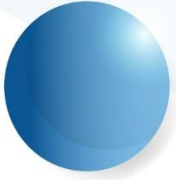
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POLITICAL SCIENCE

New Guidelines For Deemed Universities

Context:

Union Education Minister Dharmendra Pradhan announced a new set of rules for institutions that are deemed to be universities and stated that the goal of the Centre was to encourage universities to place an emphasis on quality and excellence, strengthen the research ecosystem, and have a long-term impact on changing the higher education landscape.

UGC (Institutions Deemed to be Universities) Regulations, 2023

Some of the salient features of regulations are:

- The National Education Policy 2020 is in line with the regulations. Providing higher education that leads to excellence in various fields of knowledge, primarily at the undergraduate, graduate, and doctoral degree levels, fully conforming to the concept of a university, is one of the goals of the institutions that are deemed to be universities. Another goal is to strengthen the research ecosystem and support social transformation through socially responsive teaching, learning, research, and fieldwork.
- NAAC "A" grade with at least a 3.01 CGPA for three consecutive cycles, NBA accreditation for two-thirds of eligible programmes for three consecutive cycles, ranking in the top 50 of any given NIRF category for the previous three years continuously, or ranking in the top 100 of the overall NIRF Ranking for the previous three years continuously are the requirements for applying for deemed-to-be-university status.
- A group of institutions run by many supporting organisations can also apply to be recognised as universities.
- Sponsoring entities may submit an "online" application for their institutions to be recognised as universities. In virtual mode, the Expert Committee evaluates the facilities, engages with stakeholders, and validates the paperwork.
- With the prior consent of its Executive Council and, if applicable, with the approval of the relevant statutory council, an institution that is considered to be a university may begin new courses or programmes in any discipline on its current campus and authorised off-campus facilities.
- A current institution or a new institution that focuses on teaching and research in distinctive disciplines and/or addresses the strategic needs of the nation engages in the preservation of Indian cultural heritage or the environment, is committed to skill development, is committed to sports or languages, or is committed to any other discipline(s), as determined by the Expert Committee of Commission, will be taken into consideration under the heading "Distinct Institution". Such Institutions will not be subject to the eligibility requirements.



- To establish off-campus centres, an institution must have a minimum "A" grade or be placed between 1 and 100 in the "Universities" category of the NIRF rankings for the relevant year. If an institution is accredited with an A grade or ranks in the top 100 in the NIRF's "universities" category after five years of its declaration as falling under a "distinct category," it may apply for off-campus housing.

Points to Ponder:

- **Objective:** The Regulations' main goals are to boost the research environment, encourage universities to put an emphasis on quality and excellence, and eventually change the face of higher education.
- **Replacing Former Regulations:** The UGC (Institutions Deemed to be Universities) Regulations, 2023, which supersede the prior regulations from 2019, were adopted by the University Grants Commission (UGC).
- **Facilitating Quality-Focused Universities:** The objective and transparent goal of the new legislation is to encourage the development of more quality-focused universities.
- **Alignment with NEP:** Regulations are under the National Education Policy of 2020, which reflects a broader vision for education changes in India.
- **"Light but Tight" Approach:** UGC Chairman M. Jagadish Kumar referred to the regulations as "light but tight," suggesting a balanced approach that maintains necessary oversight and regulation while preserving freedom for institutions.
- **The term "Deemed to be Universities":** The UGC Act, 1956 contains the phrase "deemed to be universities," which cannot be instantly eliminated. However, it is believed that once the Higher Education Commission of India is constituted by a Parliamentary act, the phrase would be eliminated.
- **Recognition of UGC Reform:** Dharmendra Pradhan, the minister of education for the Union, praised the UGC for implementing the new laws at the right moment.
- **New eligibility requirements:** The eligibility requirements for applying for status as a deemed university have changed with the 2019 regulations.
- **Emphasis on Quality Indicators:** To evaluate eligibility for the position of "deemed to be university," the amended standards place particular emphasis on variables such as multidisciplinary, NAAC grading, NIRF ranking, and NBA grading.
- **NAAC Grading:** Institutions must receive a NAAC 'A' grade and a minimum CGPA of 3.01 for three consecutive cycles to be eligible.
- **NBA Accreditation:** As an alternative, institutions may be eligible if they have maintained NBA Accreditation for three consecutive cycles for at least two-thirds of their qualified programmes.
- **NIRF Ranking:** Institutions can satisfy the NIRF ranking requirement if they have consistently placed in the top 50 in any given category for the previous three years.

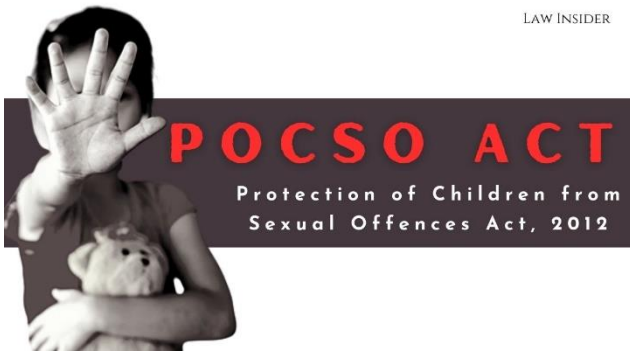
Wrestling Sexual Harassment

Context:

The protest by the medal-winning wrestlers from India has been making headlines for a while. According to reports, the Delhi police lodged two complaints of sexual harassment against the Wrestling Federation of India (WFI) president on April 28, 2023, following the Supreme Court of India's intervention and based on a petition submitted by a few athletes.

Protection of Children from Sexual Offences (POCSO) Act

- The **Protection of Children from Sexual Offences (POCSO) Act** was passed in 2012 with the goals of protecting children from sexual offences and **establishing special courts for the quick adjudication of such cases.**



- In addition to ensuring children's physical and emotional well-being, the act strives to **protect them from sexual abuse, exploitation, and pornography.**

- In addition to **sexual assault, sexual harassment, penetrative sexual assault, and child pornography**, the act defines other types of sexual offences against children.
- The **goal of the law is to uphold children's rights and interests** throughout the judicial system. It includes **provisions for the victim's statement** to be recorded in a way that is suitable for children and allows for the help of an interpreter, special educator, or any other professional while the statement is being recorded.
- The **act imposes severe penalties on anybody found guilty of sexual offences against minors.** Depending on the type and seriousness of the offence, several penalties may be **imposed, such as jail time, fines, or a combination of both.**
- The statute requires the **creation of specialised courts** to hear cases involving sexual assaults on children. These courts are **designed to speed up the legal procedure** while protecting the **victims' privacy and confidentiality.**
- The act **requires all people and organisations to legally report any information** they may have concerning sexual offences against children. Additionally, it describes the reporting and investigative processes while putting a strong emphasis on the importance of discretion and sensitivity.
- The statute places a strong emphasis on **establishing a setting that is child-friendly throughout the legal process.** It allows for the use of screens or other safeguards to keep the youngster from coming into touch with the accused and contains provisions for the presence of a parent or guardian throughout the trial.

Points to Ponder:

- **Registration of FIR:** In *Lalita Kumari v. Gov. of Uttar Pradesh and others* (2014), the Supreme Court ordered that if a complaint contains the ingredients of a cognizable

offence, the First Information Report (FIR) shall be registered as soon as possible. At this point, it is unnecessary to question whether the accusations are true.

- **Delay in submitting complaints:** While a delay in filing an FIR does not automatically invalidate the prosecution's case, if the delay lasts longer than three months, adequate justifications should be provided. Although a plausible explanation can lessen the effects of the delay, more convincing evidence may be needed to support the claims.
- **Drug analysis testing:** These tests are carried out under strict guidelines outlined in *Selvi v. State of Karnataka (2010)* on suspects or witnesses rather than victims. Tests for narcotics cannot validate the veracity of claims. Cross-examining the victim usually yields information about her reliability.
- **Arrest:** According to Section 41 of the Code of Criminal Procedure, an arrest is not required unless there is solid proof that there has been evidence of tampering, a threat has been made, other offences are being prevented, or a proper investigation is required. There must be evidence and justifications for the arrest.
- **Investigation completion:** Given the sensitivity of the cases, it is advised that the Delhi police swiftly wrap up their inquiry and deliver their final report to the judge. If the investigation is finished within 60 days of the arrest, the detainee cannot be released on bond for crimes carrying a sentence of less than ten years.
- **The presumption in favour of prosecution:** The POCSO Act presumptively favours prosecution where a victim is a minor. It falls to the accused to establish their innocence. The police must turn in their final report to the court if they cannot discover enough proof to indict the defendant.
- **Approaching the court:** If the victims are unhappy with how the proceedings are progressing, they can ask the Delhi High Court to order the police to promptly wrap up their investigation and submit a status report.

Sedition — Illogical Equation Of Government With State

Context :

After receiving an assurance from the Union Government that this law will be reviewed as soon as possible, the Supreme Court of India issued an order in 2022 staying all ongoing actions as well as the registration of new cases under the sedition statute (S.G. Vombatkere v. Union of India). The Court's stay order took into account how frequently law enforcement agencies were abusing this law.

Section 124A IPC

- Sedition is defined as an offence committed when “any person brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the government established by law in India” through spoken or written words, signs, visible representations, or other means.
- Disloyalty and all hostile emotions are included in disaffection. However, statements that do not incite or seek to incite hatred, contempt, or disaffection shall not be considered violations of this clause.
- This offence is not subject to bail. The range of penalties under Section 124A is three years to life in prison, with the option of an additional fine.
- An individual accused of violating this law is prohibited from working for the government.
- They are forced to live without their passports and are expected to regularly appear in court.



History:

The Indian Penal Code's Section 124A was first adopted in 1870, under British control, to put an end to dissent and protests against the colonial administration.

The main goal was to prevent any voice of dissent or protest from being raised by Indians who spoke out against the British Raj.

Definition:

- Sedition is an offence against the government, not the nation as a whole, according to the definition.

- It entails fostering or attempting to foster hatred, contempt, or disaffection towards the legally-instituted authority.
- Sedition may be expressed orally or in writing, or it may take the form of signals or another form.

Different Interpretations throughout the British Period:

There were two different interpretations of the law of sedition throughout the British period.

According to one view, sedition was characterised as political hostility towards the government or disaffection, as was the case with Bal Gangadhar Tilak.

The opposing view held that sedition had to be accompanied by incitement to violence or disruption, as was the case with Niharendu Dutt Majumdar.

1962's Kedarnath v. State of Bihar Judgment:

- In this case, the constitutionality of sedition was decided by the Supreme Court.
- Sedition is an offence against the state since the government represents the state, and subverting the government puts the state's survival in danger, according to the court, which found that sedition is constitutionally permissible.
- To protect the state's security, Article 19(2) permits restrictions on freedom of speech and expression, including the use of the sedition statute.

Conflict with Freedom of Speech and Expression:

- According to Article 19(1)(a) of the Constitution, sedition, as defined in Section 124A, infringes on the basic right to free speech and expression.
- Since citizens have the freedom to express dissent and the ability to overthrow an inappropriate government, dissatisfaction with a government shouldn't be viewed as a crime in a democratic republic.

Kedarnath judgement

- The Kedarnath judgement of the Supreme Court attempted to defend sedition as a fair restriction, but it did little to lessen the severity of the legislation.
- In the framework of a democratic republic, the court's comparison of the two was irrational.
- The suggestion to include the propensity to instigate disruption in Section 124A does not lessen the strictness of the legislation and closely follows the interpretation of the Tilak decision.

Sedition Law Unconstitutionality:

- The text makes the case that Section 124A of the Indian Penal Code, which deals with sedition, is unconstitutional.
- The Law Commission overlooked the Kedarnath ruling's flaw, which allowed sedition to be protected by the Constitution.

- The Kedarnath judgment's linking of the government with the state is incompatible with the fundamental values of a democratic republic, making any attempt to use sedition as a justifiable restriction under Article 19(2) invalid.

Necessity Of Electricity Distribution Companies

Context

The framework for the disbandment of the State Electricity Boards and the division of generating, transmission, and distribution into distinct businesses was provided by the Electricity Act of 2003. While transmission and distribution remained licenced and regulated operations, electricity generation was delicensed. The legislation's main goals were to encourage competition, safeguard consumer interests, and ensure everyone had access to power.

Electricity Act of 2003

Act Objectives:

- **Consolidation of laws:** The Act unifies the rules governing the production, transmission, distribution, trade, and consumption of electricity.
- **Industry development:** The Act attempts to establish policies that would support the growth of India's electrical sector.
- **Promotion of competition:** The Act aims to advance competition in the electrical industry.
- **Consumer protection:** The Act places a strong emphasis on defending consumers' rights and supplying electricity to all areas.
- **Tariff Rationalization:** The Act intends to provide open rules addressing subsidies and the rationalisation of power rates.
- **Efficiency and environmental considerations:** The Act promotes the adoption of efficient and environmentally benign practices within the electricity sector.
- **Regulatory bodies:** The Act provides for the establishment of a Central Electricity Authority, Regulatory Commissions, and an Appellate Tribunal.

Generation:

- **Delicensing power generation:** The Act delicensed all forms of electricity production, except for nuclear and sizable hydroelectric projects.
- Suppliers and distributors are required to produce 10% of the power they distribute from renewable and unconventional sources.
- **Techno-Economic clearance:** The Act does away with the Central Electricity Authority's necessity for techno-economic clearance for the majority of power facilities, except for significant hydroelectric projects.

- **Direct sale of electricity:** Power generators may sell power directly to licensees or customers with the approval of the state regulatory commission.
- **Surcharge provision:** The Act permits regulatory authorities to apply a surcharge to make up for State Electricity Boards' loss of cross-subsidy revenue.

Distribution:

- **Distribution in rural regions** was no longer permitted under the Act.
- **Urban distribution:** A licencing system is put in place for distribution.
- **Implementation errors:** Only 16 states have specified what rural regions are, thus roughly one-third of the nation is still waiting for rural distribution changes to be put into place.

Private Sector Participation

- The Act promotes private sector involvement in the production and distribution of electricity.
- Electricity can be sold directly to customers by Independent Power Producers (IPPs), encouraging competition and enhancing IPP creditworthiness.

Regulatory commissioners:

- To regulate the operation of the electricity industry, the Act creates regulatory commissioners at the federal and state levels.
- The commissions handle consumer protection, dispute resolution, and tariff regulation.

Points to Ponder:

- **2003 Electricity Act:** By dividing generating, transmission, and distribution into distinct companies and fostering competition, consumer protection, and widespread access to electricity, the Act set the groundwork for the reorganisation of the Indian electrical sector.



- **Private funding of generation:** The Act encouraged more private funding for the development of additional generating capacity. Lower pricing for electricity was obtained through long-term power purchase agreements (PPAs) following competitive procurement.

- **Growth of renewable energy:** The Act, which was predominantly supported by private investment, enabled rapid growth in the renewable energy sector. India has

one of the lowest costs in the world for solar power supply.

- **Compared to the UK model:** Some proponents of India's electrical sector reform proposed using a fully competitive, deregulated market model. This strategy was deemed inappropriate for India due to disparities in cost structures and the possibility of significant price shocks.
- **Cross-subsidy and open access:** The Act established the idea of open access, giving consumers with loads of 1 MW or more the option of selecting their power

supplier. To make sure that higher-end consumers subsidise lower-end households, cross-subsidy levies were implemented. Open access adoption is hampered by the Act's mandate to remove cross-subsidies, which has not been fully implemented.

- **Difficulties with Discoms:** Discoms, who is in charge of providing power to consumers, encounter difficulties while trying to determine cost-reflective prices and timely state government subsidies. Solutions like privatisation are needed in some governments to address bad governance and rent-seeking.
- **The importance of Discoms:** Discoms are important because they forecast demand, enter into long-term agreements, and guarantee a steady supply of electricity. They play a crucial role in encouraging investment in generating capacity and accelerating the energy transition.

Wrestlers' Protest And The Shrinking Space For Dissent

Context :



Public demonstrations have long been a driving force behind social and policy change in India, giving people of all backgrounds the chance to express their concerns and fight for their rights. Protests have exploded in recent years with astonishing speed. During the decade that the United Progressive Alliance (UPA) led by Congress was in power, protests created space for a new era of social action. Even though a variety of groups have voiced significant opposition to the Bharatiya Janata Party-led National Democratic Alliance (NDA) government, it has been handled significantly differently from past administrations.

Criminal Law (Amendment) Act, 2013 (Nirbhaya Act)

- **Expanded definition of rape:**
 - The definition of rape was expanded by the Act to encompass behaviours like penetration with any object, not simply the male organ.
 - Additionally, it broadened the spectrum of situations in which sexual acts qualify as rape.
- **Increased penalties for sexual offences:**
 - The minimum sentence for rape was raised from seven to ten years in jail, with the maximum sentence being life.
 - The Act established the provision for the death sentence in rape cases where the victim dies or is left in a chronic vegetative state.
- **New offences made illegal:**

- The Act made several sexual offences illegal, including acid attacks, stalking, voyeurism, and the trafficking of people for sex purposes.
- To address the growing concerns surrounding their occurrence, it added specific provisions and penalties for these offences.
- **Identity and privacy protection for victims:**
 - The Act added clauses to safeguard sexual assault victims' identities throughout the legal procedure.
 - To protect the victim's privacy and prevent societal stigma, it forbade the disclosure of their identity in any form of media.
- **Victim's statement to be recorded:**
 - Under the Act, any female officer, including female police officers, must sensitively record the victim's account.
 - This clause aimed to give victims a secure and encouraging setting in which they could disclose sexual offences and offer their testimonies.
- **Establishment of special fast-track courts:**
 - The Act mandated the creation of these courts to hasten the trial of sexual offence cases.
 - These courts were created to provide victims with prompt justice while cutting down on the backlog of cases involving sexual offences.
- **Enhancing the legal protections against child sexual abuse:**
 - The Act added specific provisions to combat the problem of child sexual abuse, including tougher penalties for crimes committed against children.
 - Additionally, new offences were specified, including aggravated penetrative sexual assault on a child and employing a kid in pornography.
- **Enhanced penalties for repeat offenders:**
 - The Act included enhanced penalties for repeat offenders to stop people who have previously committed sexual offences from doing so again.
 - Longer punishments and tougher oversight of repeat offenders through obligatory registration and reporting requirements were added to the legislation.

Points to Ponder:

- **Impact of demonstrations During the UPA Government:**
 - Protests during the UPA government, like the Nirbhaya demonstrations, attracted a lot of popular support and changed the way policies were approached about sexual assault.
 - The 2013 Criminal Law (Amendment) Act was a necessity for the UPA government to address the problem of sexual assault.
- **protests against the NDA administration:**
 - People believe that the present NDA government treats protests differently than past ones.
 - Such demonstrations frequently carry the label of being "anti-national," and they struggle to win over the people.

- The way the administration handles protests is perceived as demoralising people and instilling a sense of helplessness.
- **Limited Public Support for Current Protests:**
 - The public has not given much support to the wrestlers' protests calling for action against the WFI president and MP Brij Bhushan Sharan Singh.
 - There haven't been any sizable rallies or protests, in contrast to the intense public mobilisation experienced during the Nirbhaya protests.
 - In contrast to prior protests, this one has received little backing from middle-class and women's organisations.
- **Middle-class participation in social activism:**
 - The middle class had actively engaged in demonstrations like the Nirbhaya and Anna Hazare Andolan.
 - Neoliberalism and Hindutva politics are both supported by the middle class in a consistent ideological manner.
 - Their support for protests is influenced by their shifting political allegiances, and at the moment they are staunch supporters of the NDA administration.
- **Challenges and Complexities of Protests:**
 - Majoritarian politics, where the government's narrative is easily accepted even when the law is not obeyed, presents difficulties for protests.
 - The assistance provided by some groups, such as khap panchayats, brings attention to the social dynamics and identity difficulties present in protests.
 - A tighter focus on the issues and a need for intersectional viewpoints are shown by the lack of support from women's groups and civil society organisations.
- **Quiescence and Normalisation of Patriarchy:**
 - Both the middle class and the disadvantaged classes exhibit a sense of complacency.
 - The government faces little public pressure to handle issues like sexual harassment, which reflects society's normalisation of patriarchy.

Tax Law In The Shadow Of The Higher Judiciary

Context :

Indian tax law is based on two fundamental principles. Let's start with the premise that a tax can only be imposed with legal authorization, as stated in Article 265 of the Constitution. Second, any levy should be transparent, consistent, and predictable by the principle of certainty. Both of these principles spring from a broader dedication to the rule of law, particularly to ideals of legitimacy and certainty.

Article 265

- **Power of Law:** Article 265 specifies that only legal power may be used to impose or collect taxes. This means that legislation passed by the Parliament or state legislatures is required to authorise taxes.



legislatures is required to authorise taxes.

- **Protection Against Arbitrary Taxation:** Article 265's clause protects citizens from being subjected to arbitrary or exorbitant taxes. It stops the government from levying levies devoid of justification.

- **Fair and Accountable Taxation:** Article 265 aims to ensure that the Indian tax system functions in a just, open, and accountable way. It encourages the ideas of equality and accountability in the taxing process by requiring levies to be authorised by law.

- **Direct taxes:** Direct taxes are imposed on

people or organisations according to their income, wealth, or property. Income tax, wealth tax, and property tax are a few examples of direct taxes. According to Article 265 of the Constitution, these taxes must be levied with legal sanction.

- **Indirect taxes:** Indirect taxes are levied on both commodities and services. The consumer normally bears the cost of these taxes. GST (goods and services tax), customs fees, and excise fees are a few examples of indirect taxes. Furthermore, as required by Article 265 of the Constitution, these taxes must be levied with legal sanction.
- **Tangkhul v. Simirei Shailei Case:** The Tangkhul v. Simirei Shailei Case involves villages paying a fixed sum to the headman instead of the customary practise of providing free labour. The court determined that because this payment lacked legal authorization, it violated Article 265 and was equivalent to tax collection.
- **Lord Krishna Sugar Mills:** In the Lord Krishna Sugar Mills v. UOI case, the government instituted a promotion system that subjected sugar merchants who fell short of specific export targets to an additional excise fee. The court emphasised the need for tax imposition through parliamentary permission when it determined that the administration lacked the legal capacity to levy this additional excise tax.
- **fiscal system:** Article 265 is a cornerstone of India's fiscal system, which is why it is important. To ensure that the tax system runs within the bounds of the law, it provides the constitutional framework for the levying and collection of taxes.

- Citizens are protected from unauthorised or illegal tax collection by Article 265's provision. It makes sure that only legal means are used to impose taxes, protecting the rights and interests of taxpayers.

Points to Ponder:

- **Principle of Taxation:** Two key tenets of Indian tax law are highlighted in the passage under the heading "Indian Taxation Principles." First, according to Article 265 of the Constitution, taxes can only be levied under the authority of the legislation. To uphold the rule of law and ideals of legality and predictability, taxes should be transparent, uniform, and predictable.
- **Reversal of Well-Reasoned Judgements:** The section highlights worries about the Supreme Court of India overturning High Court decisions that were well-reasoned, which calls into question the adherence to the aforementioned criteria. It explicitly cites two decisions by Justice M.R. Shah as noteworthy examples.
- **ITO vs. Vikram Sujitkumar Bhatia Case:** This case centres on how Section 153C of the Income Tax Act should be interpreted. The clause addresses the circumstances under which actions for search warrants against third parties may be taken. In the past, several High Courts had a strict interpretation of the clause, insisting that the material taken genuinely "belongs" to the third party. The Supreme Court overturned this view, permitting retroactive application of the modified statute to searches made before the change.
- **Union of India v. Ashish Agarwal Case:** In this case, the Revenue sent reassessment notices without the necessary legal authorization. The Court reinstated these notices, which High Courts had ruled were illegal because tax agents behaved honestly and were not aware of the legal change. The Court reinstated these notices despite the absence of parliamentary support by using its authority under Article 142 of the Constitution, which permits it to issue orders for "complete justice."
- **Breach of Statutory Law and Article 142:** It is argued that the Court's use of Article 142, which gives it the authority to issue orders for "complete justice," may violate the law. Concerns have been raised concerning the Court's use of this power after it revived activities without legislative authorization and overturned judgements that were not even on appeal to it.
- **Illusory Promise of Taxation without Legislation:** The passage ends by stating that if the Supreme Court keeps playing the role of the legislature, the promise of taxation without legislation, as protected by Article 265 of the Constitution, will remain illusory, undermining the concepts of legality and certainty in taxation

The next Finance Commission will have a tough task

Context :

In the next months, the government will appoint a Finance Commission to decide how much of the tax money from the Centre should be distributed to States (the vertical share) and how that should be done (the horizontal sharing formula).

Historical Background:

- The Finance Commission was founded by Dr B.R. Ambedkar in 1951 to address the budgetary inequalities between the federal government and the states.
- Several clauses in the Indian Constitution, including Articles 268, 269, 270, 275, 282, and 293, describe how the Union and states might share resources.

Composition of the Finance Commission:



- The Finance Commission is made up of one Chairman and four additional members. There are five people on the commission.
- The President of India appoints each member and sets their terms of service as well.
- The qualifications and selection processes for the Chairman and members are set by the Parliament.
- The Chairman needs to be knowledgeable about public affairs.
- The other members are chosen based on their credentials in administration, accounting, finance, and economics.

Grounds for Disqualifying a Member: A member may be disqualified if they are mentally ill, have outstanding indebtedness, have been found guilty of a morally repugnant act, or if their financial interests interfere with the Commission's ability to carry out its duties.

Functions of the Finance Commission:

- The Finance Commission's duties include recommending how tax revenues should be split between the Union and the states as well as between the states themselves.
- It makes recommendations for the Consolidated Fund of India's grants-in-aid to states and union territories.
- Based on recommendations from state finance commissioners, the Commission offers actions to increase state funding for the operation of panchayats and local governments.
- The Commission may review financial-related issues that the President refers to it and report its findings to the President.
- The report of the Commission and a memo outlining the steps taken in response to its recommendations are presented to both Houses of Parliament by the President.

Advisory Role of the Finance Commission:

- The President of India receives recommendations from the Finance Commission, which serves in an advising capacity.
- The recommendations of the Commission are up to the President to approve or reject, and it is up to the Union Government to carry them out.
- The Commission's advice function is crucial for preserving fiscal federalism in India's balance.

Significance of Finance Commission:

- The advisory role of the Finance Commission is significant because it assures a technical and rational approach to financial issues.
- According to Dr P.V. Rajamannar, the chairman of the Fourth Finance Commission, the government shouldn't reject the recommendations of the commission unless there are compelling justifications.
- The Commission's advisory function assists in maintaining budgetary parity between the Union and states, particularly when there are coalition governments in place.

Report from the 15th Finance Commission:

- The 15th Finance Commission delivered its report for the years 2021–2022 to 2025–2026 in November 2020.
- The research made suggestions regarding tax devolution, local government grants, grants for emergency management, and state performance incentives.
- It also addressed the requirement for a different system to pay for internal and external security.
- The main report, annexes, difficulties facing the federal government, and state budgets were all covered in the four volumes of the study.

Points to Ponder:

- **Appointment of Finance Commission:** A Finance Commission will be appointed in India by the government to decide how tax money will be split between the federal government and the states.

- **Importance of the Finance Commission:** The Finance Commission's importance Since the Planning Commission was eliminated in 2014, the Finance Commission has become essential to India's fiscal federalism. Being the only architect of India's fiscal federalism has considerably enhanced its duty and influence.
- **Vertical Share and Horizontal Sharing Formula:** The vertical share, or the portion of the tax pool that is distributed to the states as a percentage, will be determined by the Finance Commission. The horizontal sharing formula, which defines how the revenue is allocated among the states, will be the main topic of discussion.
- **Horizontal distribution problems:** In the past, Finance Commissions have had trouble balancing the distribution formula. Mathematically speaking, it is impossible to increase one state's funding without decreasing another, which has prompted accusations of unfairness or inefficiency.
- **Population Statistics:** When the previous Finance Commission was asked to utilise the 2011 population data rather than the conventional 1971 figures to assess a state's expenditure needs, there was debate. States that had effectively managed population increase objected to the shift because they felt it penalised them for doing so.
- **Grants for Revenue Deficit:** The Finance Commission provides grants for revenue deficit to states that continue to run deficits even after tax devolution. There are worries that this method would inadvertently encourage states to rely on federal payments rather than increase their resources.
- **Deepening Fault Lines:** Political, economic, and fiscal differences between states have widened recently. The north-south split widens because southern states are frequently thought to perform better than northern states in a variety of indices.
- **Cesses and Surcharges:** Rather than raising taxes, the central government is increasingly turning to the levying of cesses and surcharges. This enables the federal government to keep all extra revenue without distributing it to the states. To restrict the use of such taxes and set a limit on the amount that can be raised through them, the Finance Commission should develop rules.
- **Limiting Freebies:** The Finance Commission should concentrate on how much money the government spends on populist initiatives or "freebies." Although safety nets for the impoverished are crucial, fiscal prudence must be practised. To guarantee long-term fiscal sustainability, guidelines should be offered.
- **Prime Minister's Role:** The role of the prime minister is to demonstrate the value of sound governance over populist promises by acting on the recent statements made by the prime minister regarding the negative financial effects of excessive giveaways.
- **Formalising methods:** To encourage fiscal prudence and sustainability, the Finance Commission should formalise methods to address the problems of cesses and surcharges as well as spending on freebies.

Link Between Peace and Free and Fair Local Body Elections

Context:

The upcoming local body elections in West Bengal, which have been marred by political violence, are facing significant challenges in ensuring free and fair elections

Relevance:

GS-02 (Governance, Challenges in democratic decentralization)

Mains Questions:

Discuss the significance of peace in ensuring free and fair elections and the importance of the deployment of central forces to contribute to maintaining law and order during elections. (250 words)

Prelims:

- Article 324 – Vesting Election Commission with Authority over Elections.
- Article 325 – Ineligibility for Special Electoral Roll Based on Religion, Race, Caste, or Sex.
- Article 326 – Basis of Elections: Adult Suffrage for House of the People and State Legislative Assemblies.
- Article 327 – Parliament's Power to Enact Laws on Legislature Elections.
- Article 328 – State Legislature's Power to Enact Laws on Legislature Elections.
- Article 329 – Restriction on Court Interference in Electoral Matters

Dimension of the Article:

- The article aims to provide a comprehensive understanding of the interdependence between peace and the successful conduct of local body elections-
- Political Violence and its Implications
- The Role of Central Forces
- Challenges Faced by Opposition Parties
- Protecting Democratic Decentralization
- Measures that can be taken:

Political Violence and its Implications

- Instances of political violence leading to fatalities since the notification of the polls.

- The State Election Commission (SEC) and the West Bengal government have approached the Supreme Court to challenge the Calcutta High Court's order, which directed the deployment of central forces in all districts.
- Resource constraints faced by the State government and the SEC highlight the need for external support to ensure the smooth conduct of elections

The Role of Central Forces



- The utilization of central forces during elections can aid in reducing violence and establishing a favourable atmosphere for unrestricted and equitable participation.
- The directive from the Calcutta High Court to deploy central forces, with the expenses covered by the Centre, should have been regarded as a viable resolution worthy of appreciation.
- The significance of central forces in upholding law and order is emphasized by the State Election Commission's previous appeal for their presence during the 2013 elections.

Challenges Faced by Opposition Parties

- Analysis of the 2018 local body polls and the ruling party's victories without contest.
- Reports of intimidation and instances where opposition parties are unable to submit nominations in specific areas, raise doubts about the fairness of participation.
- The Governor's involvement in visiting areas affected by violence and setting up a control room for citizens to register complaints underscores the importance of unbiased monitoring and intervention in the electoral process.

Protecting Democratic Decentralization

- The three-tier panchayat system in West Bengal serves as a representation of democratic decentralization.
- The responsibility of political parties and stakeholders in upholding the integrity of the electoral process.
- The role of the Governor in addressing violence and creating a platform for citizen grievances.

Measures that can be taken:

- Strengthening security arrangements by deploying central forces and allocating necessary resources.
- Ensuring the fair participation of opposition parties through effective monitoring and intervention.
- Promoting awareness and adherence to democratic principles among all stakeholders.

- Facilitating an open and accessible platform for citizens to report grievances and address concerns related to the election process. e. Implementing reforms to curb political violence and establish a culture of peaceful elections.

Conclusion:

The article highlights the crucial link between peace and the conduct of free and fair local body elections and the prevalence of political violence, the significance of central forces, the challenges faced by opposition parties, and the importance of preserving democratic decentralization for a peaceful electoral process.

Strike a fine balance, and have a just civil code.

Context:

- On June 14, the Law Commission of India decided to seek public opinions and proposals regarding the Uniform Civil Code (UCC). This move comes after a five-year hiatus during which the Commission had concluded that the UCC was neither necessary nor desirable.
- The topic of the UCC is highly contentious in India, with ideological and political rivalries surrounding it.

Relevance:

GS-02 (Fundamental Rights, DPSP)

Prelims:

- Uniform Civil Code
- Article 44
- Article 25
- Article 14.

Mains Questions:

- Discuss the concept of personal laws and the dilemma between personal and religious autonomy versus the state's authority to reform familial relations in the context of the Uniform Civil Code in India. (250 words)
- Analyse the implications of cultural diversity and multiculturalism in the formulation of the Uniform Civil Code, emphasizing the importance of unity without compromising individual and community rights. (250 words)

What is Uniform Civil Code?

- The Uniform Civil Code (UCC) aims to establish one law for the entire country, applicable to all religious communities in personal matters like marriage, divorce, inheritance, adoption, etc.



- Article 44 of the Constitution emphasizes the state's endeavour to secure a UCC for all citizens in India.
- Article 44 is part of the Directive Principles of State Policy (DPSP), which are fundamental principles in governance but not enforceable by any court.
- In India, there are already uniform codes in place for various civil matters, including the Indian Contract Act 1872, Civil Procedure Code, Transfer of Property Act 1882, Partnership Act 1932, Evidence Act 1872, etc.
- Despite these uniform civil laws, there is still diversity due to numerous amendments made by different states.

Dimensions of the article:

- **Autonomy versus Authority.**
- **Unity More than Uniformity**
- **Hurdles on the Path Ahead**

Autonomy versus Authority

- The question of personal laws revolves around the conflict between personal and religious autonomy and the state's authority to reform familial relations. Advocates argue that each religious group should seek its reforms, citing the cultural autonomy enjoyed by these groups. This has led to the adoption of internal law reforms or voluntary adoption of the UCC in certain cases. However, it is essential to note that recent laws such as those addressing inter-faith marriages, commonly referred to as "love jihad" laws, violate the spirit of the Special Marriage Act.
- Moreover, regional differences exist within personal laws. For instance, Kerala abolished the Hindu Joint Family in 1975, while Muslim marriages and divorces are registered under different laws in various states. Adoption is permissible for Kashmiri Muslims but regulated differently in other regions.
- Currently, not only Muslims but also Hindus, Jains, Buddhists, Sikhs, Parsis, and Jews are governed by their respective personal laws. The determination of which personal law applies to an individual or group is based on their religious identity. Even the reformed Hindu Personal Law under the Hindu Marriage Act, of 1955, mandates certain rituals and practices. Interestingly, when two Hindus marry under the Special Marriage Act, they continue to be governed by Hindu Personal Law. However, if two Muslims marry under the same act, they are no longer governed by Muslim Personal Law.

Unity More than Uniformity

- The Indian Constitution reflects a culmination of India's integrative traditions rather than being the starting point. It prohibits discrimination in all forms and upholds cultural accommodation through Article 29(1), which safeguards the distinctive culture of all citizens. It is essential to question whether practices such as polygamy or arbitrary unilateral divorce, even in anger or while intoxicated, can be considered part of the culture of Indian Muslims.
- While unity is of greater significance than uniformity, the proposed UCC must embody India's "mosaic model" of multiculturalism, acknowledging and preserving its diverse cultural fabric. The homogenization of religious identities, as witnessed during British colonial rule, must not overshadow the flourishing diversity within Hindu and Muslim communities.
- The Indian Constitution accommodates and celebrates group differences, adopting both integrationist and restricted multicultural approaches. While affirmative action policies align with the former approach, state assistance to minority cultures is often criticized as appeasement. Therefore, it is necessary to strike a balance between cultural accommodation and the pursuit of substantive equality and gender justice goals enshrined in the Constitution. A just code that promotes equality should be the primary objective, rather than a mere uniform law.

Hurdles on the Path Ahead

- It is crucial to recognize that when a community feels threatened, collective esteem becomes tied to the community, leading to stronger community allegiance. Hence, it is hoped that the Law Commission of India will not contribute to reactive culturalism among different communities, including Muslims. The Muslim community should understand that Muslim Personal Law (MPL) and Islam are not synonymous. MPL, derived from Anglo-Muhammadan law, is not entirely divine and can be reformed.
- The path ahead toward secularization of socio-religious-cultural practices faces inevitable challenges. The Commission must strike a delicate balance, eliminating only those practices that contradict constitutional benchmarks. As political philosopher Iris Young argued, the value of social difference is relational and a product of social processes. Therefore, the Commission must navigate the complexities and ensure the elimination of unjust practices while respecting cultural diversity and individual rights.

Way Forward:

- As the Law Commission undertakes the task of formulating recommendations for the Uniform Civil Code, it should prioritize preserving India's multicultural diversity and ensuring justice, equality, and gender rights.
- Balancing the autonomy of different religious groups with the state's authority to reform familial relations is a complex endeavour. The Commission should engage with communities, progressive jurists, and religious leaders to foster dialogue and identify discriminatory and oppressive aspects of personal laws.
- By promoting inclusive reforms and upholding constitutional principles, the Commission can pave the way for a just and harmonious society.

Conclusion:

India's journey toward preserving its multicultural diversity encounters challenges as it addresses the issue of the Uniform Civil Code. While personal and religious autonomy must be respected, it is imperative to ensure that personal laws are consistent with constitutional principles of equality and justice. The pursuit of unity should not overshadow the importance of diversity and cultural pluralism. The Law Commission of India's recommendations should strike a balance, eliminating discriminatory practices while respecting community identities and rights. By upholding the mosaic model of multiculturalism, India can achieve a just and inclusive society that embraces its rich cultural heritage.

Laying the foundation for a future-ready digital India

Context:

The Ministry of Electronics and IT has initiated consultations on the "Digital India Bill" to address the need for a new law that replaces the outdated Information Technology (IT) Act, which has been in effect for 23 years. The primary objective is to update the existing legal framework to effectively tackle emerging challenges in the digital realm, such as user harm, competition, and misinformation.

Relevance:

GS-03 (Cyber security, IT and Computers)

GS-02 (Government Intervention and Policies)

Prelims:

- Digital India Act, 2023
- Information technology act (IT Act) of 2000
- Cyber security
- Digital personal data protection Bill

Mains Questions:

Discuss the significance of classifying digital intermediaries into different categories and assigning specific responsibilities and liabilities. How can this approach help in regulating technology and ensuring a safer online environment?

Dimensions of the article:

- Shortcomings of the Current Legal Regime
- International Frameworks on Proportionate Regulation of Intermediaries

- Focus Areas for India's Digital India Bill

I. Shortcomings of the Current Legal Regime

- **Broad and ambiguous definition of “intermediaries”:** The IT Act defines an “intermediary” as any entity between a user and the Internet, but the lack of specificity in this definition has confused. This broad definition encompasses a wide range of services, including video communications, matrimonial websites, email services, and online comment sections on websites. Such a broad categorization



fails to differentiate between different types of intermediaries and their respective roles and responsibilities.

- **Classification of intermediaries:** The IT Rules further classify intermediaries into three main categories: Social Media Intermediaries (SMIs), Significant Social Media Intermediaries (SSMIs), and Online Gaming Intermediaries. However, these classifications do not adequately address the diverse nature of digital platforms and their associated risks. Consequently, the rules impose stringent obligations on various intermediaries, treating

ISPs, websites, e-commerce platforms, and cloud services similarly. This approach fails to consider the varying degrees of risk and harm associated with different types of intermediaries.

- **Stringent obligations for most intermediaries:** The current legal regime imposes stringent obligations on intermediaries, including a 72-hour timeline for responding to law enforcement requests and content takedown requests. While these obligations are important for maintaining online safety and addressing illegal activities, they are applied uniformly to different types of intermediaries without considering the differences in their nature of services. This results in increased costs of compliance and unnecessary liability for intermediaries that pose lower risks.
- **Inadequate differentiation:** The current legal framework treats licensed intermediaries such as Microsoft Teams or customer management solutions like Zoho in the same manner as conventional social media platforms. This approach overlooks the fact that licensed intermediaries often have a closed user base and present a lower risk of harm from information going viral. Treating these intermediaries similarly to social media platforms not only increases their cost of doing business but also exposes them to greater liability without significantly reducing the risks associated with the internet.

II. International Regulatory Frameworks on Proportionate Regulation of Intermediaries

- **The European Union's Digital Services Act:** The Digital Services Act introduced by the European Union provides a developed framework for regulating intermediaries. It introduces exemptions and creates three tiers of intermediaries: hosting services, online platforms, and “very large online platforms.” Each tier has increasing legal obligations based on the size and nature of the intermediary.
- **Australia's classification system:** Australia has adopted an eight-fold classification system, including separate industry-drafted codes for social media platforms and search engines. This system requires intermediaries to conduct risk assessments

based on the potential exposure to harmful content such as child sexual abuse material (CSAM) or terrorism. The regulatory approach is tailored to the specific risks associated with different types of intermediaries.

III. Focus Areas for India's Digital India Bill

- **Granular classification framework:** Instead of a product-specific classification, a more future-proof approach is needed. The bill should establish a classification framework that defines a few distinct categories of intermediaries and requires them to undertake risk assessments. This approach will allow for adaptability as technology evolves and new types of intermediaries emerge.
- **Differentiation and proportionate obligations:** To minimize the burden on intermediaries, the bill should clearly distinguish between communication services (where end-users interact with each other) and other types of intermediaries like search engines and online marketplaces. The obligations placed on intermediaries that are not communication services should be proportionate, considering their risk profile. While lesser obligations may be applicable, intermediaries should still be required to appoint a grievance officer, cooperate with law enforcement, identify advertising, and take down problematic content within reasonable timelines.
- **Risk assessment for communication services:** Communication service intermediaries, such as social media platforms, should conduct risk assessments based on factors such as the number of active users, potential harm, and the likelihood of harmful content going viral. Large communication service platforms could be subject to special obligations such as appointing India-based officers and setting up in-house grievance appellate mechanisms with independent external stakeholders to enhance confidence in the grievance process.
- **Periodic review and industry consultation:** The effectiveness of the proposed framework relies on defining metrics for risk assessment and appropriate thresholds. These metrics should be periodically reviewed in consultation with industry stakeholders to ensure their relevance and effectiveness in addressing evolving challenges.

Way Forward

- To establish accountability and online safety while minimizing the legal obligations of a large number of intermediaries, the following steps should be considered:
- Exemption for micro and small enterprises: Micro and small enterprises, along with caching and conduit services, should be exempted from major regulatory obligations. This approach recognizes their limited resources and ensures that compliance does not hinder their growth.
- Circuit breakers and alternative approaches: Alongside traditional content takedown mechanisms, alternative approaches such as circuit breakers to slow down the spread of harmful content should be explored. These mechanisms can help mitigate the virality of harmful content without imposing excessive burdens on intermediaries.

Conclusion

The Digital India Bill presents an opportunity to redefine the legal and regulatory framework governing technology in India. By addressing the shortcomings of the current regime,

adopting a proportionate approach, and ensuring periodic review and consultation, the bill can establish a regulatory environment that promotes accountability, online safety, and business growth. It is essential to strike a balance between the obligations placed on intermediaries and the evolving nature of technology to create a safer and thriving Internet ecosystem.

Unravelling the Constitutional Conundrum: An Analysis of the Delhi Services Ordinance

Context :

The legal battle between the Delhi government and the central government over control of services in the National Capital Territory (NCT) has been an enduring saga, spanning eight years and multiple rounds of litigation. Recently, the Supreme Court of India ruled in favour of the Delhi government, marking a significant milestone in the struggle.

Relevance:

GS-02 (Parliament, Indian constitution)

Prelims:

- Parliament
- Ordinance

Mains Questions:

How does an ordinance impact the cooperative federalism model envisioned by the Constitution? Discuss with suitable examples. (150 words)

What is an Ordinance?

- Article 123 of the Indian Constitution grants President certain law-making powers to promulgate Ordinances when either of the Houses of Parliament is not in session during urgent situations.
- Under the Constitution of India, the issuance of ordinances by Parliament is not permissible. However, when a legislative session has not yet commenced, an ordinance remains in effect as law and carries the same force as an Act of the legislature.
- The ordinance needs to be ratified by Parliament within six weeks of its reassembly.
- The maximum validity of an ordinance promulgated by the President is six months and six weeks from the date of its promulgation.



- Similarly, under Article 213 of the Constitution, the Governor of a state can also issue ordinances when the state legislative assembly is not in session.

Cooperative Federalism:

- Cooperative federalism refers to a collaborative approach between the central government and

state governments in India, emphasizing shared decision-making, coordination, and cooperation in policy formulation and implementation.

- It promotes a spirit of partnership and teamwork, recognizing that both the central and state governments have distinct roles and responsibilities while working towards common goals for the welfare and development of the country.
- Cooperative federalism fosters intergovernmental relations through mechanisms such as the Inter-State Council, National Development Council (now replaced by NITI Aayog), and various forums for consultation, dialogue, and consensus-building between different levels of government.
- It emphasizes the importance of financial devolution, where the central government provides funds to state governments through schemes like the Finance Commission and centrally sponsored schemes, enabling states to address their unique developmental needs.
- Cooperative federalism also ensures the effective implementation of constitutional provisions like Article 263 (Inter-State Council) and Article 282 (Power of the Union to grant aid to states), which facilitate cooperation, coordination, and resolving intergovernmental disputes.
- Cooperative federalism in India aims to strike a balance between the autonomy of state governments and the need for a strong central government.

Dimensions of the Article:

- Unveiling the Constitutional Quandary
- The Significance of Services in Representative Democracy
- The Triple Chain of Accountability
- Constitutional Provisions and Delhi's Special Status
- The Deliberate Disruption: Unpacking the Delhi Services Ordinance

Unveiling the Constitutional Quandary

- The Delhi Services Ordinance, designed to curtail the authority of the elected Delhi government and restore control over services to the central government, raises profound questions about the principles that underpin democracy.
- While the central government justifies this move by invoking the need to balance interests and pointing to Article 239AA of the Constitution, these arguments fail to

address the fundamental flaw of the ordinance: its violation of democratic principles, representative governance, and a responsive administration.

The Significance of Services in Representative Democracy

- Services play a crucial role in the functioning of a modern polity, bridging the gap between policy formulation and implementation.
- The control and accountability of services directly impact the effective realization of policies and promises made by elected representatives.
- By default, the authority over services is vested in the directly elected government to ensure the alignment of vision, policy implementation, and public accountability.

The Triple Chain of Accountability

- The concept of the “triple chain of accountability” was recognized by the Supreme Court in its May 2023 judgment.
- This principle establishes the accountability of civil servants to the cabinet, the cabinet to the legislative assembly, and the legislative assembly, in turn, to the electorate.
- Any disruption of this triple chain fundamentally undermines the core constitutional principle of representative government.

Constitutional Provisions and Delhi’s Special Status

- Article 239AA of the Constitution already recognizes Delhi’s special status as the national capital.
- It explicitly restricts the legislative and executive authority of the Delhi government in certain fields, such as public order, land, and the police. However, it does not deprive the Delhi government of control over services.
- The constitutional provisions ensure the preservation of the triple chain of accountability, whereby bureaucrats are accountable to the elected government, which is accountable to the legislative assembly, which, in turn, is accountable to the people.

The Deliberate Disruption: Unpacking the Delhi Services Ordinance

- The Delhi Services Ordinance disrupts the triple chain of accountability by completely removing services from the jurisdiction of the Delhi government and placing them under the control of the central government.
- Unlike the flexibility intended by Article 239AA, the ordinance attempts to usurp exclusive power over services, undermining the principles of representative democracy and responsible governance enshrined in our constitutional order.
- Its arbitrary nature, lacking any compelling reason or determining principle, further raises questions about its constitutionality.

Way Forward:

To restore the balance of power and safeguard democratic principles, it is imperative to review and reconsider the Delhi Services Ordinance. The need for a collaborative approach that respects the unique status of Delhi while upholding representative governance is crucial.

A comprehensive dialogue between the central government, the Delhi government, and other stakeholders is necessary to find a balanced solution that respects constitutional principles and ensures effective governance.

Conclusion:

The Delhi Services Ordinance's enactment has escalated the ongoing battle between the Delhi government and the central government, posing significant challenges to the principles of representative governance and accountable administration. By examining the constitutional provisions and the potential repercussions of the ordinance, it becomes evident that it undermines the very foundations of our democratic system. As the legal battle continues, the Supreme Court's intervention will determine the fate of this protracted struggle, which has far-reaching implications for the future of governance in the National Capital Territory.

Free Of Manual Scavenging

Context:

The Union Social Justice and Empowerment Ministry now claims that only 508 of the country's 766 districts have been declared free of manual scavenging, despite claims made over the past few years that the practice had been eradicated and the only threat left was the hazardous cleaning of sewers and septic tanks.

Points to Ponder:

- Contrary to earlier statements that manual scavenging had been eradicated, the



Union Social Justice and Empowerment Ministry in India have indicated that **only 508 of the nation's 766 districts** have been deemed free of the practice.

- The **Ministry** distinguishes **physical scavenging** from **dangerous septic tanks and sewage cleaning**. About **58,000 manual scavengers** were found in studies done in **2013 and 2018**, however, the Ministry insisted that these surveys no longer reflect the reality of manual scavenging.

- In a brochure listing the successes of the government under the Narendra Modi administration, the Ministry cited "508 districts have reported themselves as manual scavenging-free" as one of its accomplishments.
- According to evidence from states and municipal bodies, manual scavenging no longer occurs, according to Social Justice Minister Virendra Kumar. The identified manual scavengers were given access to centres for skill development and were each given a **one-time monetary payment of 40,000**.
- The **NAMASTE scheme**, which aspires to **completely mechanise sewer work**, has fused with the rehabilitation programme for manual scavengers.
- The **NAMASTE scheme** received a **100 crore dollar allocation** from the **Union Budget for 2023–2024**, but the rehabilitation scheme received no separate funding.
- The Housing and Urban Affairs Ministry and other ministries are working together to implement the mechanisation plan. The rules for the programme still need to be completed.
- The **NAMASTE scheme** mandates that more than **4,800 urban local bodies around the nation identify** and profile all septic tank/sewer employees, give them specialised training and safety gear, and sign them up for Ayushman Bharat health insurance.
- The programme also provides capital subsidies to **workers who agree to mechanise their jobs and affiliate with local organisations**.
- To increase the safety and dignity of sanitation employees, the government wants to end deaths from manual scavenging and encourage mechanisation. However, work is still being done to put the plan into action and ensure complete mechanisation across the country.

NAMASTE scheme

- **Objective:** The NAMASTE programme aims to provide sanitation workers in metropolitan India with a safe, dignified, and long-term means of subsistence.
- **Joint Initiative:** The Ministry of Social Justice and Empowerment (MoSJE) and the Ministry of Housing and Urban Affairs (MoHUA) together launched the programme.
- **Enabling Ecosystem:** NAMASTE wants to establish an environment that supports sanitation workers as vital members of the team responsible for running and maintaining the sanitation system.
- **Occupational Safety:** The program's main goal is to increase the occupational safety of sanitation employees by giving them access to safety equipment, training, and machines.
- **Sustainable Livelihood:** NAMASTE works to give sanitation employees chances for a sustainable way of life by promoting alternative career paths and minimising their vulnerabilities.
- **Alternative Livelihoods:** The programme has a strong emphasis on giving sanitation workers access to alternative livelihood support and entitlements, allowing them to find chances for skilled wage jobs and self-employment.
- **Perspective:** NAMASTE seeks to improve how the public feels about sanitation employees and to increase the demand for reliable sanitation services.
- **Outcomes:**
- **Zero fatalities:** The scheme aims to achieve zero fatalities in sanitation work across India.
- **Skilled workforce:** The objective is to ensure that all sanitation work is performed by skilled workers.

- **No direct contact:** NAMASTE envisions that no sanitation worker should come in direct contact with human faecal matter.
- **Empowerment through collectivization:** Sanitation workers will be collectivized into Self-Help Groups (SHGs) and empowered to run sanitation enterprises.
- **Access to alternative livelihoods:** All sewer and septic tank sanitation workers (SSWs) should have access to alternative livelihood options.
- **Strengthened supervisory and monitoring systems:** National, state, and Urban Local Body (ULB) levels will have strengthened systems for enforcement and monitoring of safe sanitation work.
- **Awareness and demand:** The scheme aims to increase awareness among individuals and institutions to seek services from registered and skilled sanitation workers.
- **Cities Included:** All cities and towns with a population of over one lakh, the capital cities and towns of states and union territories, as well as a few cities from hill states, islands, and tourism hotspots, will be included in the first phase of NAMASTE's coverage of 500 cities.
- **Enumeration:** The plan includes a mechanism for identifying Sewer/Septic Tank Workers (SSWs) who are performing risky cleaning tasks. Support and actions for sanitation employees and their families will be made easier by the data gathered.
- **Benefits of the Insurance Scheme:** The Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) would cover the designated sanitation workers and their families to give them a safety net. The NAMASTE plan will pay the premium for AB-PMJAY.
- **Assistance with Subsistence:** NAMASTE will encourage mechanisation and business growth. Sanitation workers, SHGs, and private sanitation service organisations (PSSOs) will receive funding support and subsidies to buy cars and other equipment for sanitation. Sanitation workers will be given advice and opportunities to strengthen their skills to pursue new career paths.

Why did the govt impose a ceiling on wheat stocks?

Context:

- The amount of wheat that merchants, wholesalers, retailers, large chain shops, and processors may hold is regulated by the Union Government. The goal is to maintain supply to stabilise the price of the necessary good.
- 3,000 metric tonnes can be held by traders and distributors. merchants and large chain merchants can each store up to 10 metric tonnes, while the latter can store up to 3,000 metric tonnes across all of their depots.
- For the agricultural year 2022–2023, the Agricultural Ministry predicts wheat production would reach a record 1,127.43 lakh metric tonnes.

Limits on Wheat Stock:

- Traders/Wholesalers: The maximum amount of wheat that traders and wholesalers may hold in stock is 3,000 metric tonnes.
- Retailers and Big Chain Retailers: Retailers are permitted to store up to 10 metric tonnes of wheat at each location, while big chain retailers are permitted to store up to 3,000 metric tonnes of wheat at all of their depots.
- Processors are permitted to stock up to 75% of their installed yearly capacity.

Reporting Requirements

- Entities including traders, wholesalers, retailers, big-chain stores, and processors are required to report their stock positions and keep the Department of Food and Public Distribution portal updated with any changes.
- These entities have 30 days from the notification date to reduce the number of shares they hold if it exceeds the prescribed limitations.

Open Market Sale Scheme (OMSS).

- The government intends to sell 15 lakh tonnes of wheat from the central pool through the Open Market Sale Scheme (OMSS).
- E-auctions will be used to sell wheat to producers of wheat products, individual dealers, flour mills, and bulk buyers.
- The goal is to keep wheat retail prices under control.
- The first shipment of wheat will be sold in lots of 10 to 100 metric tonnes, and depending on market conditions and demand, additional deliveries might be made.
- To lower rice prices, the government also plans to sell some of it through OMSS; the amount for the first round of the e-auction will soon be chosen.

Concerns about wheat production

- Unseasonal rainfall, hailstorms, and warmer temperatures in some areas have sparked worries about the total wheat output.

- Higher pricing for wheat may result from lower output.
- Prices that are higher than what the government pays for purchases could hamper its efforts to keep supply adequate.

Price of wheat today:

- On June 14, wheat's daily average retail price was 29 cents per kilogramme, up from 27.54 cents per kilogramme a year earlier.
- The price per quintal at the wholesale level was \$2,593.5, up from \$2,557.89/quintal the month before and \$2,423/quintal a year before.

Government Procurement and Stock:

- For the current Rabi Marketing Season (RMS) 2023–2024, the government set a goal of acquiring 341.5 lakh metric tonnes of wheat for the Central Pool.
- 261.99 lakh metric tonnes of wheat had been purchased as of June 12.
- According to Reuters, slower government purchases in recent days as local prices rose could result in a reduction of a fifth in India's wheat purchases in 2023 compared to the earlier estimate.
- In June, the government had 313.9 lakh metric tonnes more wheat in the central stock than it did in the same month last year (311.42 lakh metric tonnes).

Wheat Production Estimates:

- The Ministry of Agriculture estimates wheat production for the agricultural year 2022-23 to be a record 1,127.43 lakh metric tonnes.
- This represents an increase of 50.01 lakh metric tonnes compared to the previous year.
- The optimistic projection is based on the increased area of wheat cultivation and expectations of better yield.

Pradhan Mantri Garib Kalyan Anna Yojana

Context :

The government decided to restrict the supply of food grains through the Open Market Sale Scheme (Domestic) to 100 tonnes to curb inflation in the market.

Pradhan Mantri Garib Kalyan Anna Yojana



- The Indian government introduced the **PMGKAY** food security benefits programme in March 2020, at the height of the COVID-19 pandemic.
- The programme attempts to use the **Public Distribution System** to deliver food grains to India's poorest residents.
- The **Ministry of Consumer Affairs, Food and Public Distribution, with the Ministry of**

Finance serving as the nodal ministry, oversees its operation. It is run by the Department of Food and Public Distribution.

- Priority households are covered by **PMGKAY**, including those with **ration cards** and **Antyodaya Anna Yojana** beneficiaries.
- Each qualified family is given 1 kg of dal (lentils) and 5 kg of rice or wheat per person (depending on regional dietary preferences).
- The program's funding comes from the Union Budget, which has set out **Rs. 2 lakh crores for the fiscal year 2022–2023**.
- Due to its scope and reach, it is regarded as the largest food security programme in the world.
- Prime Minister Narendra Modi extended the programme till November 2020 due to its effectiveness and success.

Obstacles faced:

- PMGKAY was first introduced for April through June 2020, with an anticipated cost to the exchequer of 1.70 lakh crore.
- It was anticipated that 800 million recipients would gain from the extension, which aimed to ensure that nobody went hungry while the pandemic was active.
- An **extra 90,000 crore was spent because of the delay**.

- Initially, PMGKAY was introduced for April through June 2020 at an estimated cost of 1.70 lakh crore to the government's coffers.
- The delivery of free grain, however, ran into problems **because of localised corruption**.
- Goa and Telangana were **two states that failed to deliver any grain**, while other states only distributed 1% of their allotted grain.
- **Corruption among village council members and food distributors** was noted as a significant barrier in the distribution process.
- Concerned by the state of affairs, the Union Minister of Consumer Affairs, Food, and Public Distribution emphasised that the problem was being treated seriously.
- Another element implicated in the **failure of grain distribution is a lack of migrant labour**

National Food Security Act, 2013

- **Aim of the act:** The act's main objective is to give subsidised food grains to around two-thirds of India's 1.4 billion inhabitants, which represents a sizable chunk of the country's population.
- **Enactment:** On September 12, 2013, the act was ratified, taking effect retroactively from July 5, 2013.
- **Entitlement:** The statute transforms current food security initiatives into enforceable entitlements. It includes initiatives like the Public Distribution System (PDS), Integrated Child Development Services programme, and Midday Meal Scheme. Additionally, maternity benefits are acknowledged.
- **Coverage:** All eligible users are covered by the Midday Meal Scheme and the Integrated Child Development Services Scheme because they are universal programmes. About two-thirds of the population is served by the Public Distribution System (PDS), with varied coverage percentages for rural and urban areas (75% in rural areas and 50% in urban areas).
- **Subsidized Prices:** Beneficiaries of the Public Distribution System are eligible to receive 5 kilogrammes (11 lb) of grains at discounted costs per person each month. The following are the cereal prices that are specified:
 - A) Rice at \$3 (3.8) per kilogramme
 - B) Wheat for US\$2 (US\$2.5) per kilogramme.
 - C) Millet, coarse grains, for \$1 (1.3 US) per kg
- **Free Cereals:** Daily free cereals are available to pregnant women, breastfeeding moms, and certain age groups of children.
- **Controversies:** The 2013 National Food Security Act has generated debate. It was presented to the legislature in December 2011, made official by the president as an ordinance in July 2013, and signed into law in September 2013. At various times, various states have carried out the act's application.
- **State Implementation:** For instance, starting on November 17, 2015, the government of Odisha implemented the legislation in 14 districts. On December 24, 2015, the government of Assam did the same.

Human-Animal Conflicts: Arikompan Case

Context :

Arikompan, an elephant from Kerala, was recently relocated to the **Kalakkad Mundanthurai Wildlife Sanctuary in Tamil Nadu**, which has refocused attention on the factors that determine how successful such operations are.

Recent events:

- The recent translocation of **Arikompan**, an elephant from **Kerala, to the Kalakkad Mundanthurai Wildlife Sanctuary** in Tamil Nadu has brought back into focus the variables that dictate the success of such operations.
- The attempt is two-fold:
 - A) **to give the elephant a second chance at a life in the wild**
 - B) **to provide villagers peace of mind from the threat of attacks for food.**

Human-Animal conflict:

- When human interests and wild animal activity overlap, it can lead to **unpleasant interactions and conflicts between the two species.**
- It usually happens when animals intrude on **human settlements or when humans and animals fight over resources like land, food, and water.**
- Because humans overuse resources, there is typically a **lack of resources in the forests, especially water.**

Types of Human-Animal Conflict

- **Crop raiding:** Animals like elephants, wild boars, or monkeys may break into fields of crops and damage them, causing farmers to suffer financial losses.
- **Livestock Predations:** Predators may attack and kill livestock, costing farmers and herders money. Examples of predators include wolves, lions, and tigers.
- **Animal attacks on humans:** Under some conditions, animals may directly endanger human safety. Injuries or deaths may come from confrontations with large carnivores like bears, leopards, or crocodiles, for example.
- **Habitat destruction:** Animals may lose their historic ranges as human populations rise and intrude on natural environments. As animals go for food and shelter in human-populated regions, this may result in more contact between humans and animals.
- **Road accidents:** Road accidents can occur when animals stray onto highways and roads and collide with moving vehicles. This puts both people and animals at risk.
- **Conflicts over conservation:** Sometimes, efforts to save threatened or endangered species or their ecosystems lead to disputes with nearby communities whose livelihoods depend on those same resources.

Solutions for human-animal conflicts:

- **Habitat management:** By giving animals enough room to roam and limiting their contact with people, preserving and restoring natural habitats can help decrease the frequency of disputes.
- **Planning for land use:** Carefully defining protected areas, buffer zones, and wildlife corridors can help reduce conflicts between people and animals.
- **Using deterrents and electric fencing:** Animals can be kept out of agricultural fields or populated areas by using physical barriers like electric fences or noisemakers.
- **Plans for compensation and insurance:** Farmers and herders may find it easier to manage their finances if compensation programmes or insurance plans are put in place to cover livestock losses or crop damage.
- **Community involvement and education:** Promoting alternative livelihood options, educating local communities about wildlife behaviour, and including them in conservation activities can develop a positive attitude and lessen disputes.
- **Translocation:** Conflict mitigation and resolution Creating conflict management techniques, such as trained response teams or moving problem animals, can help reduce hazards and identify long-term fixes.
- Translocation may not work always as a long-term fix



Elephant Translocation Challenges:

- **Recapturing or Deaths:** Four out of the last five elephants released into the Mudumalai Tiger Reserve (MTR) have either been recaptured or have passed away.
- **Cross-Border Movement:** A few translocated elephants, including Vinayagan, Pandalur Makhna-2, and Crowber, traversed state boundaries and entered the Bandipur Tiger Reserve. The Kerala or Karnataka Forest Departments were able to recapture these elephants.
- **Unfamiliar Environment:** There is a possibility that the elephant from Hosur that was released in the Sathyamangalam Tiger Reserve perished after falling since it was not familiar with the area.

Successful Translocation:

- **Rivaldo's Case:** Rivaldo, a tusker captured by the forest department within a kraal, was successfully released in the **Mudumalai Tiger Reserve's central region**. He returned to his home range on foot but in a different region of the relocation area. The forest department was closely watching him as he did this.

Recommendations from conservationists:

- **Multiple approaches:** To reduce unfavourable interactions between people and elephants, conservationists advise a variety of approaches. The establishment of

coexistence zones around elephant habitats where bitter plants like lime, tea, and coffee can be grown is one example of this.

- **Restoration of Elephant Habitats:** Restoring elephant habitats is essential for lowering conflicts. Elephants' natural behaviours can be encouraged and the need for interactions with human settlements diminished by providing acceptable and ample habitat.
- **Negative Conditioning:** Elephants who penetrate farms and populated areas should be subjected to negative conditioning, according to policymakers. Elephants may be discouraged from crop-raiding by making the costs outweigh the advantages.
- **Kind Solutions:** Conservationists propose relocating elephants to elephant camps, where they may be cared for in a controlled environment, as opposed to frequent translocations that may result in trauma. The demands of the elephants must be taken into account and each one must be evaluated individually.

Uniform Civil Code (UCC) And Effects On Tribals

Context :

The Adivasi Samanwai Samiti (ASS) brought together representatives from over 30 tribal organisations from **Jharkhand** to discuss the Uniform Civil Code (UCC) on Sunday. They concluded that the UCC might weaken tribal customary laws and rights. In **Meghalaya**, a tribal council has unanimously adopted a resolution opposing the application of the proposed Uniform Civil Code (UCC) in territories under its control.

What is Uniform Civil Code?

- The UCC is a plan to create and put into effect a set of personal laws that would apply to all Indian people regardless of their gender, sexual orientation, or religion.



- **Present Situation:** Currently, religious scriptures in India serve as the basis for personal law, leading to various legal systems for various religious communities. These laws address topics including inheritance, adoption, marriage, divorce, and maintenance.

- **Background information:** Personal laws were first imposed on Hindus and Muslims during the British Raj. Because they were worried that community leaders would object, the British government refrained from interfering in this area.

- **Exception of Goa:** The state of

Goa, which was ruled by the Portuguese during colonial times, is an exception and

still adheres to common family law, known as the Goa Civil Code. As a result, it is currently the only state in India to have a unified civil code.

- **Hindu Code Bills:** The government of India passed the Hindu Code Bills after gaining its independence to codify and update the personal laws of several sects of Indian faiths, including Jainism, Buddhism, Hinduism, and Hinduism. Christians, Jews, Muslims, and Parsis, on the other hand, were exempt and considered as separate communities.
- **Shah Bano Case:** The Shah Bano case in 1985 helped the UCC gain notoriety. In this instance, a Muslim woman who had recently divorced was demanding maintenance. The discussion focused on how to ensure that certain laws apply to all citizens while also preserving their right to engage in religious activities.
- **Opposition & Dissension:** The adoption of a standard civil code has been a divisive topic. The political left wing, Muslim organisations, and conservative religious organisations that support the preservation of Sharia law and religious customs have all opposed the UCC.
- The Indian constitution permits religious organisations to run their affairs and ensures citizens' right to practise their religion freely (**Articles 25–28**). The need for a unified civil code is suggested by Article 44 of the constitution, which emphasises the need for the state to implement **directive principles and common law when creating national policy**.

Where do the tribals in central India stand in implementing UCC?

- Under the umbrella of **Adivasi Samanwai Samiti (ASS)**, representatives from more than 30 tribal organisations from Jharkhand gathered in Ranchi to discuss the Uniform Civil Code (UCC).
- The tribal bodies expressed worry that the UCC's adoption may weaken their rights and customary rules, endangering their ability to maintain their traditional identity.
- They decided to take action and ask the Law Commission to revoke the UCC proposal because they think it may jeopardise their cultural and legal customs.
- The tribal bodies also decided to protest the **Law Commission's** next UCC consultation and voice their disapproval of the draught code.
- It was emphasised that in Scheduled Areas, where common law does not apply, the **Indian Constitution's sixth Schedule** applies.
- Tribes who live in Scheduled Areas are regulated by their own customary rules, which explains why laws like the **Hindu Marriage Act** and the **Indian Succession Act** do not apply to them.

Where do the tribals in North Eastern India Stand in implementing UCC?

- **Tribal Council Opposition:** In Meghalaya, the Khasi Hills Autonomous District Council (KHADC) approved a resolution opposing the application of the proposed Uniform Civil Code (UCC) inside its territorial limits.
- **UCC's objectives:** The UCC seeks to create a standard body of personal rules that would govern all Indian citizens, regardless of their religious affiliations. It covers a variety of topics, including succession, adoption, inheritance, and marriage.
- **Concerns of the Khasi Community:** Pyniaid Sing Syiem, the main executive member of the KHADC, voiced worry that the UCC will adversely affect the Khasi

community's customs, traditions, practises, inheritance, marriage, and religious freedom.

- **Matrilineal System:** In Meghalaya, the Khasis, Garo, and Jaintia communities all adhere to this system. The youngest daughter inherits the family's property under this system, and children adopt their mother's last name.
- **Khasi Community Dominance:** The KHADC primarily administers the areas where the Khasi community predominates. As a result, the resolution adopted by the council reflects the Khasi community's resistance to the UCC's adoption.
- **Protection under the Sixth Schedule:** To safeguard and defend the interests of the Khasis, the resolution implores the Union government to refrain from enforcing the UCC within the KHADC's territorial jurisdiction. This proposal is based on the rights granted to tribal territories under the Indian Constitution's Sixth Schedule.
- **Other Autonomous District Councils' Opposition:** The UCC is also opposed by the Garo Hills Autonomous District Council and the Jaintia Hills Autonomous District Council, representing the Garo and Jaintia populations.

NHRC sends notice to Maharashtra

Context :

The **National Human Rights Commission (NHRC)** sent a notice to the **State government** requesting a **detailed report** on the matter from the Chief Secretary and the Director-General of Police within four weeks after the **Maharashtra police allegedly freed 11 labourers who were allegedly kept chained by contractor in the Osmanabad district.**

Bonded Labour System Abolition Act 1976

- An Act to provide for the abolishment of the bonded labour system to stop the economic and physical exploitation of the weaker groups of the population, as well as for things related to or incidental thereto.
- **Abolition of Bonded Labour:** With the Act's declaration that the system of bonded labour was no longer in use, all bonded labourers were released from their bonds and were no longer required to do bonded labour.
- **Customs and Agreements Are Nullified:** The Act nullified any custom, agreement, or other documents that enforced the need for bonded labour.
- **Extinguishment of Bonded Debt:** Bonded labourers were released from the weight of their debts by the Act's extinguishment of the need to repay bonded debt.
- **Freedom of Property:** Bonded labourers' property was free of any liens or encumbrances stemming from their bonded labour.
- **Protection from Eviction:** As part of the payment for their bonded labour, freed bonded labourers were not forced to leave the homes they owned or other residential properties they had occupied.



- **District Magistrates' responsibilities:** District Magistrates were given specified tasks to complete to carry out the Act's provisions.
- **Establishment of Vigilance Committees:** To monitor and guarantee the efficient implementation of the Act, vigilance committees were necessary to be established at the district and sub-divisional levels.
- **Offences & Penalties:** Violation of the Act's terms was a crime subject to legal sanctions. The Act stipulated that such offences could result in up to three years in prison and fines of up to 2,000 rupees.
- **Powers of Judicial Magistrates:** The Act mandated that Executive Magistrates be given the authority of Judicial Magistrates to try crimes covered by the Act. For certain offences, summary trial procedures could be used.
- **Cognizability and Bail:** Every offence covered by the Act was classified as either cognizable (meaning it could be investigated without a warrant) or bailable (meaning the accused may be freed on bail).

What is NHRC?

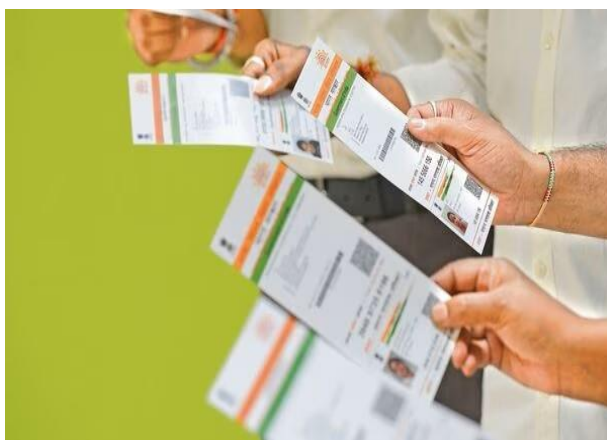
- According to the **Protection of Human Rights Act, of 1993**, which was later revised in 2006, the **NHRC of India is an independent statutory organisation that was founded on October 12th, 1993.**
- On October 12, 2018, **NHRC celebrated its Silver Jubilee (25 years).** Its corporate **headquarters are in New Delhi.**
- It serves as the **country's watchdog for human rights**, which are those that are guaranteed by the **Indian Constitution** or enshrined in international accords and are upheld by Indian courts. These **rights relate to life, liberty, equality, and the dignity of the individual.**
- It was created per **the Paris Principles**, which were accepted in Paris (October 1991) for the **promotion and protection of human rights**, and approved by the **United Nations General Assembly** on December 20, 1993.

Registration of birth and death by Aadhaar authentication allowed

Context :

The Office of the Registrar-General of India (RGI) is now able to authenticate Aadhaar cards as part of the nation's birth and death registration process thanks to permission from the Centre. Nevertheless, it is not required.

What is Aadhaar?



➤ Definition and Purpose:

- Aadhaar is a 12-digit unique identification number issued to residents of India and certain foreign nationals.
- It is obtained voluntarily and is based on biometric and demographic data.
- The Unique Identification Authority of India (UIDAI) is responsible for collecting and managing the data.

➤ Legal Framework:

- The Aadhaar (Targeted Delivery of

Financial and Other Subsidies, Benefits and Services) Act, 2016, provides legislative backing to Aadhaar.

- Before this act, the UIDAI operated as an attached office of the Planning Commission (now NITI Aayog).

➤ Scope and Limitations:

- Aadhaar is considered proof of residence, not proof of citizenship.
- It does not grant any rights to domicile in India.
- It is not a valid identification document for travel to Nepal and Bhutan.

➤ Supreme Court Rulings:

- The Supreme Court of India has issued several rulings on Aadhaar.
- In September 2013, the court stated that Aadhaar is voluntary, and no person should suffer for not having it.
- The court has affirmed the voluntary nature of Aadhaar in subsequent rulings and addressed privacy concerns.

➤ Right to Privacy:

- In August 2017, the Supreme Court declared the right to privacy as a fundamental right, impacting the Aadhaar system.
- A constitutional bench of the Supreme Court heard cases related to Aadhaar, considering privacy, surveillance, and exclusion from welfare benefits.

What is the recent change made in the Aadhar?

- **Introducing Voluntary Basis:** Aadhaar authentication is optional while registering births and deaths. It is done voluntarily, allowing people the option to choose Aadhaar authentication or not.
- **Purpose of Authentication:** The Aadhaar authentication aims to confirm the identification of the people taking part in the registration procedure. It authenticates the parent, informant, and child's identities during birth. It confirms the identity of the parent, spouse, and informant in cases of death.
- **Yes or No Authentication:** The Registrar, who oversees the registration procedure, can undertake Aadhaar authentication in one of two ways: yes or no. This means that, without disclosing any further personal information, the authentication will check if the supplied Aadhaar number is real or not.
- **Guidelines for State Governments and Union Territories:** Concerning the usage of Aadhaar authentication, State governments and Union Territories must follow the rules established by the Ministry of Electronics and Information Technology (MEiTY). These rules guarantee that Aadhaar authentication is applied consistently and uniformly across different locations.
- **Previous Regulations and Notifications:** In 2020, the government issued regulations declaring that seeking entities could accept Aadhaar authentication. This was done to encourage ease of living, promote good administration, and stop the leakage of public monies. A proposal justifying the usage of Aadhaar authentication must be prepared by the competent Ministry or States and submitted to the Centre for further referral to the Unique Identification Authority of India (UIDAI).

Cabinet clears NRF Bill to offer strategic direction to research

Context :

On Wednesday, the National Research Foundation (NRF) Bill, 2023, was passed by the Union Cabinet. According to a press release from the Department of Science and Technology (DST), the legislation aims to create the NRF as an apex body to provide "high-level strategic direction" to scientific research in the nation under the National Education Policy (NEP) at an estimated cost of 50,000 crores between 2023 and 2028.

What is the National Research Foundation Bill, of 2023?

- **Objective:** The NRF Bill's main goal is to make the NRF the leading organisation for scientific research in India, giving research initiatives a high-level strategic direction that is in line with the National Education Policy (NEP).



- **Funding:** Between 2023 and 2028, the NRF is anticipated to get a budget of 50,000 crore. The private sector is anticipated to invest almost 36,000 crore in research financing, compared to the government's contribution of 10,000 crore over five years.
- **Administration:** The NRF will be administered by the Department of Science and Technology (DST), which will also be in charge of overseeing operations and execution.
- **Governance:** The NRF will be governed by a board of distinguished scientists and professionals. The Union Ministers of Science, Technology, and Education will serve as ex-officio vice presidents and the Prime Minister will be the ex-officio president of the Board. The executive council in charge of overseeing the operation of the NRF would be presided over by the Principal Scientific Adviser to the Government of India.
- **Repeal of SERB:** The Science and Engineering Research Board (SERB), formed by Parliament in 2008, will be replaced by the NRF. The NRF will incorporate SERB, streamlining the system for supporting research.

- **Equity in Research Funding:** The NRF seeks to correct the current imbalance in which public universities receive a smaller percentage of funding (about 10%) than prominent institutes like the IITs and IISc.

National Research Foundation

- **Establishment and QAd Cost:**

- The National Research Foundation (NRF) is a proposed organisation that is intended to be set up in India to assist and encourage research and development activities.
- The National Education Policy's (NEP) proposals served as the foundation for the creation of the NRF.
- The NRF is anticipated to cost 50,000 crore in total between 2023 and 2028.
- Over five years, the government aims to contribute Rs. 10,000 crore.
- The business sector is anticipated to contribute over 36,000 crores as research investments.

- **DST's function:**

- The NRF will have a department called "administrative" called the Department of Science and Technology (DST).
- This indicates that the DST will operate under the auspices of the NRF and that its duties and responsibilities will be in line with those of the NRF.
- Initiatives for research and development under the NRF are likely to receive support and coordination from the DST.

- **The body that regulates:**

- A Governing Board will be in charge of the NRF's operations and decision-making procedures.
- The ex-officio President of the Board will be the Prime Minister of India, demonstrating the significance and high level of involvement of the government in the NRF.
- The ex-officio Vice-Presidents of the Board shall be the Union Ministers of Science & Technology and Education.
- The Board is anticipated to comprise eminent academics and experts from a range of fields, adding a variety of viewpoints and knowledge.

- **Executive Council:**

- An Executive Council will oversee how the NRF operates.
- The Executive Council will be presided over by the Principal Scientific Adviser to the Government of India, who would emphasise how scientific knowledge influences the NRF's policies and decisions.
- The NRF's objectives will be put into effect effectively thanks to the Executive Council's formulation of policies, strategic judgement, and implementation decisions.



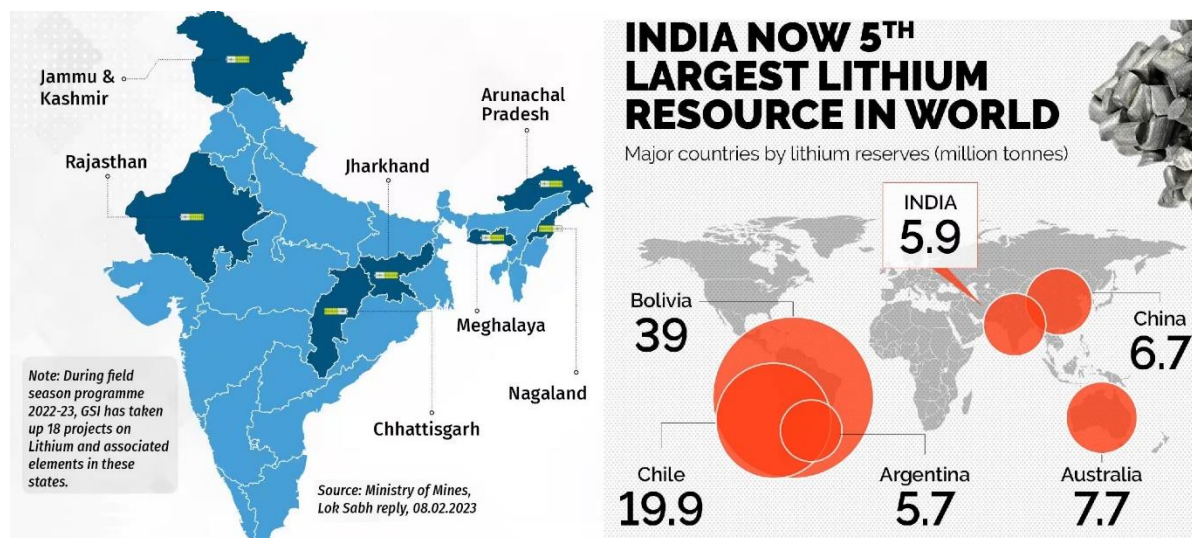
DEFENCE AND SCIENCE AND TECHNOLOGY

Who Should Own The World's Lithium?

Context:

- According to academics, the continuous shift to low-carbon economies, the quick development of artificial intelligence (AI), and the rollout of 5G networks will significantly alter regional and global geopolitics.
- The histories of Chile and Bolivia, the two South American nations with the biggest known lithium reserves, are particularly instructive.
- A significant portion of India's mineral wealth is extracted from areas that have extremely high rates of poverty, environmental damage, and low governance. If India's development of rare minerals is to achieve its many objectives, effective and attentive sector management should be of the utmost importance.

Lithium:



- **Occurrence:** Although it is extremely uncommon, lithium can be found in trace levels in the Earth's crust. Numerous minerals, including spodumene, petalite, and lepidolite, contain it. Brine deposits that contain lithium are also present in some areas.
- Lithium has **low melting and boiling points** and is very reactive with both air and water. It has a low density and is soft enough to cut with a knife. A good conductor of heat and electricity is lithium.
- **Applications:** Lithium is used in a variety of significant industries, most notably the battery industry. Rechargeable lithium-ion batteries, which are frequently found in electronic gadgets like smartphones, laptops, and electric cars, make substantial use of them. Other uses for lithium include the manufacture of ceramics, glass, lubricants, and pharmaceuticals.
- **Health and Medicine:** Bipolar illness is one mental health disease for which lithium has been utilised as a medicine. It serves as a mood stabiliser and can aid those with bipolar illness in lessening the frequency and intensity of manic episodes.

- **Energy Storage:** Because of their high energy density and long cycle life, lithium-ion batteries are frequently employed for energy storage. They have transformed portable electronics and are rapidly being employed in grid-level storage, electric vehicle batteries, and renewable energy storage systems.
- **Environmental Impact:** Concerns about the effects of lithium mining on the environment have been sparked by the rising demand for lithium-ion batteries. Lithium mining and processing may harm the environment, causing habitat destruction and water contamination. Making lithium production and recycling procedures more sustainable, however, work is being done in this area.

Points to Ponder:

➤ **Lithium industry in India:**

- Interest in India's domestic lithium production has soared following the discovery of sizable lithium reserves in Jammu and Kashmir.
- The market for electric vehicles (EVs) in India is expanding quickly, and lithium battery demand is rising.
- The Indian EV market was estimated at \$383.5 million in 2021, and by 2030, it is anticipated to grow to \$152.21 billion.
- India now imports a lot of its lithium batteries, so building up indigenous stocks is essential for ensuring energy security and minimising reliance on foreign sources.

➤ **Ownership Of Lithium in India :**

- India's Supreme Court has declared that the land's owner has rights to everything that is beneath it, including the minerals.
- However, other places, such as woods, hills, mountains, and revenue wastelands, are owned by the government.
- If it is thought necessary, the government has the power to forbid private parties from mining important minerals.
- To ensure ethical mineral extraction, it's critical to find a balance between private ownership and public regulation.

➤ **Management of lithium reserves in different nations:**

- **Chile:** Chile has recognised lithium as a strategic resource and has given two businesses, SQM and Albemarle, the sole right to produce lithium.
- The "National Lithium Strategy" that Chile's president unveiled in 2023 emphasises public-private partnerships to control environmental damage, share profits fairly, and advance indigenous research in lithium-based products.
- **Bolivia:** Under the previous president Evo Morales, Bolivia first nationalised its lithium business but encountered difficulties in attaining commercial-scale production.
- Luis Arce, the president at the moment, wants to work with other Latin American nations to create a regional lithium strategy that is advantageous to their economies.
- **Mexico:** Lithium was recently declared a national resource in Mexico by President Andrés Manuel López Obrador, who views it as a resource that belongs to the country and its people.

➤ **Considerations and a multi-pronged strategy:**

- Countries in Latin America and South America are managing their lithium reserves in various ways, with differing levels of private sector involvement.
- The mobilisation of indigenous communities seeking responsibility from both companies and governments has an impact on the conduct of these governments.
- To maintain social well-being, environmental safety, and national energy security, India must place a priority on competent management, cautious regulation, and responsible development.
- Responsible practises and sustainable development are crucial, especially in light of the difficulties posed by mining in places with high levels of poverty and loose regulations.

Half of the electricity to be from renewable sources by 2027

Context :

While India may have committed to the world to have half of its installed electricity come from renewable sources by 2030, a **Central Electricity Authority (CEA)** estimate of the country's **estimated power consumption** released on Wednesday indicates that this **objective may be met sooner, by 2026–2027**.

Points to Ponder:

- India's goal of obtaining half of its installed electricity from renewable sources by 2030 may be accomplished earlier than anticipated, by 2026–2027, according to the Central Electricity Authority (CEA) in India.
- The **National Electricity Plan (NEP)**, a **five-year plan by the CEA**, evaluates the issues, **projected growth, and electricity demands of India**.
- The NEP predicts that the **percentage of non-fossil-based capacity will rise to 57.4%** by the end of **2026–2027** and may perhaps reach 68.4% by the end of 2031–2022. As of April 2023, this represents a **huge increase from the current level of almost 42.5%**.
- It's vital to remember that generated power is not equivalent to installed capacity. The efficiency of various energy sources varies, and not all sources are always accessible.
- **Solar and wind energy** are both renewable energy sources, however, only solar electricity is available during the day.
- Considering these variables, the NEP predicts that by 2026–2027 and 203–31, respectively, the share of electricity produced by renewable sources will be around 35.04% and 43.96%.
- The NEP's goals have been labelled as ambitious but doable by outside experts.

- The recent declaration by the Indian government that **it will install 50 GW of renewable energy capacity annually reinforces the viability of meeting the renewable energy targets.**

OTT Seek Satellite Bandwidth

Context:

OTT streaming companies argued in favour of using more satellite bandwidth to connect with viewers.

Points to Ponder:



- **Importance of satellite-based distribution:** According to AVIA, the media sector is crucial in supplying millions of Indians with entertainment, information, education, and religious engagement. They contend that satellite-based distribution is necessary to reach these consumers both today and in the future. According to AVIA, huge nations all over the world experience similar difficulties, thus India is not an outlier in this sense.
- **Opposition to auctioning satellite frequency assignments:** AVIA and other major satellite service providers around the world are opposed to the idea of auctioning off satellite frequency assignments. They stress that, in contrast to terrestrial communications, the satellite spectrum is a resource that is shared by several satellite operators. The international guidelines established by the ITU permit the reuse of satellite frequencies many times at the same geographic location. According to AVIA, eliminating the current broad reuse of spectrum resources through auctioning and giving exclusive rights to a single user will significantly reduce the amount of spectrum that is available for India.

- **Impact on satellite spectrum availability:** AVIA expresses worry that the spectrum resources available to India in comparison to the current situation would be reduced by auctioning satellite frequency allocations. The shared nature of satellite spectrum utilisation would be undermined by giving one user exclusive rights, possibly resulting in inefficient use of the spectrum and reducing the overall capacity for satellite-based distribution.
- **Encouragement for Satellite system:** The government should concentrate on promoting satellite broadband systems, which rely on constellations of Internet-connected spacecraft, according to AVIA. These technologies can assist in bringing Internet connectivity to rural locations with little or undeveloped terrestrial infrastructure. In regions like Lakshadweep that are currently without terrestrial or submarine connections connecting them to mainland networks, AVIA uses the example of satellite broadband backhaul moment. India can close the digital divide and boost connections in remote areas by supporting the growth and extension of satellite broadband infrastructure.

Good And Bad

Context :

Artificial intelligence (AI) that can generate fresh data is known as generative AI. Even though they are capable of more, generative AI is widely employed in the world today to generate text, graphics, and code in response to user requests. Their extensive use greatly exaggerated their capabilities, inspiring first wonder and then concern.

Artificial intelligence (AI)

- **The study of intelligent computers that can carry out tasks that traditionally require human intelligence is the focus of the discipline of artificial intelligence (AI),** a subfield of computer science.
- A branch of AI called "**machine learning**" enables computers to learn from experience and get better over time without having explicit programming instructions. It entails the creation of algorithms capable of data analysis, pattern recognition, and prediction or decision-making.
- A branch of machine learning called **deep learning is concerned with creating artificial neural networks that are modelled after the human brain.** These neural networks have numerous interconnected layers and are capable of automatically learning data representations and extracting intricate features.



- The area of artificial intelligence known as **natural language processing** is concerned with how computers and human language interact. It involves activities like text generation, sentiment analysis, language translation, and speech recognition.
- Important **ethical questions** are raised by the quick development of AI. **Privacy concerns, algorithmic prejudice, employment displacement, and societal effects are a few of them.** A major concern is ensuring the ethical and responsible development and application of AI.

Concerns:

- **Falsification of Data:** The passage emphasises how generative AI can produce plausible but incorrect information, making it challenging to tell the difference between true and altered data.
- **Lack of Transparency:** AI models' inner workings, especially those supported by neural networks, can be puzzling. Concerns concerning accountability and comprehension of the hazards involved with these approaches are brought up by this lack of openness.
- **Use of Copyrighted Data:** AI models frequently draw on enormous datasets, some of which may contain copyrighted data. The paragraph makes the argument that using this data without the right authority causes moral and legal issues.
- **Human Dignity and Privacy:** The author stresses the significance of taking into account human dignity and privacy when creating and applying AI. Carefully considering the potential effects on people's rights and autonomy is necessary.
- **Protection Against Misinformation:** Because AI can provide plausible but inaccurate information, there is a risk that misinformation and disinformation will proliferate, which can have serious societal repercussions.

Way Forward:

- **Open-Source AI Risk Profile:** According to the passage, the Indian government needs to create and update an open-source AI risk profile regularly. This would entail evaluating the potential risks connected to AI technologies and disseminating transparent data to the general public, researchers, and policymakers.
- **Sandboxed R&D Environments:** The paragraph suggests the use of sandboxed research and development environments to test potentially dangerous AI models. Researchers might examine and assess AI systems in these safe conditions without worrying about unanticipated harmful effects.
- **Promotion of Explainable AI:** The passage highlights the need for developing explainable AI, which refers to AI systems that can provide understandable explanations for their decisions and actions. This would enhance transparency, accountability, and the ability to detect and address biases or unethical behaviour.
- **Definition of Intervention Scenarios:** The passage suggests that policymakers should define specific scenarios in which intervention in AI systems is necessary. By anticipating potential risks and harmful outcomes, policymakers can establish guidelines and regulations to safeguard against these risks.
- **Maintaining Oversight:** The passage highlights how critical it is to keep an eye out for potential problems and to oversee the deployment of AI. This would require regulatory authorities or governmental organisations to regularly monitor AI

technology and their effects on society, ensuring that moral norms are being followed and spotting any concerns

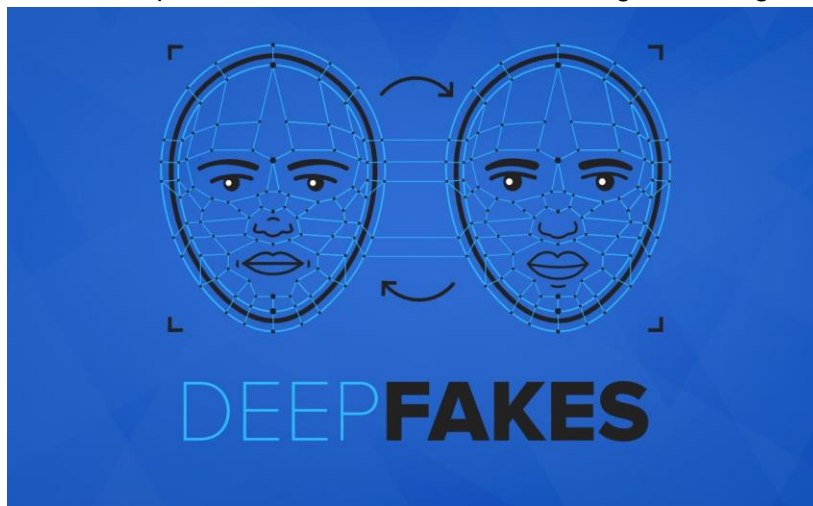
Dealing With Deep Fakes

Context:

A **deep fake** is a piece of work created by a machine using deep learning that contains **misleading information**. Because deep fakes seek to deceive us into believing something is true by distorting reality, it is beneficial to maintain the definition of deep fakes in front of us.

Points to Ponder:

- When deep learning algorithms are used to create media (such as photographs or videos), **deep fakes are produced that contain inaccurate or deceptive information**.
- Deepfakes **can provide more convincing and realistic outcomes than conventional photo editing methods like Photoshop**.
- Deepfakes have been used for bad things including making **fake movies of famous people, breaking into facial recognition software, and producing "revenge porn."**



By passing off the modified video as genuine, deep fakes can corrupt reality and convince people to believe something they shouldn't.

• Deepfakes pose questions regarding our capacity to distinguish between **authentic and**

false information, particularly given the development of chatbots that closely resemble human intelligence.

- Deep learning technology does, however, have some advantageous uses, such as improving creativity across **multiple professions and restoring voices for those with speech impairments**.
- Replicating the sounds or pictures of historical individuals like **Andy Warhol, Anthony Bourdain, and Tupac Shakur** are examples of beneficial uses of deep learning.
- Similar to previous technology like kitchen knives or nuclear reactors, the redeemability of deep learning depends on how it is used.

- To **control the usage of deep fakes**, punish those who do so in bad faith, and include democratic processes in shaping the technology's future, regulations and legislation are required.
- People should be given the **basic moral right to be shielded from deepfakes' manipulation of their voice and image**.
- For people to be able to tell real content from fake, they must have scientific, digital, and public literacy.
- With the use of its already-existing surveillance network, **China has imposed restrictions on deep fakes, demanding authors' consent and the use of watermarks**.
- In the absence of rules, self-control is essential to preventing the abuse of deepfakes.

Why is India rethinking its anaemia policy?

Context:

The National Family Health Survey (NFHS-6) due to start on July 6 will no longer ask questions about anaemia. After health professionals questioned the accuracy of the technique being used to estimate haemoglobin levels, an omission was made.

What causes anaemia?

- A lower-than-usual level of red blood cells or a drop in the quantity of haemoglobin inside the red blood cells are symptoms of anaemia.
- Red blood cells include a protein called haemoglobin, which is in charge of transporting oxygen from the lungs to the body's tissues.
- Low haemoglobin levels or insufficient red blood cells impair the blood's ability to carry oxygen, which can cause symptoms including weariness, weakness, dizziness, and shortness of breath.
- The most frequent nutritional cause of anaemia is iron deficiency. Haemoglobin production depends on iron, and a lack of iron in the diet can cause haemoglobin levels to drop and anaemia to develop.
- Anaemia can also be caused by other things, like vitamin B12 and folate deficiencies and other chronic illnesses.
- Anaemia prevalence assessment is essential for planning and implementing public health interventions.
- The Diet and Biomarkers Survey in India (DABS-I) was implemented in India by the Health Ministry to determine the prevalence of anaemia.
- The DABS-I survey was recently introduced to map the population's food, nutrition, and health status in both urban and rural areas.
- The survey seeks to deliver precise predictions of the prevalence of anaemia in India.

- To successfully address anaemia and enhance population health generally, tailored treatments and programmes will be easier to implement with accurate data on anaemia prevalence.

What prompted the change?

- The adoption of WHO cut-off points for anaemia diagnosis in India could result in an overdiagnosis of anaemia, which would mean that some people might receive the label of anaemic when they truly don't have a serious health issue.
- The study by the Indian team also revealed variations in the capillary blood from a finger prick blood collection method employed in the National Family Health Survey (NFHS). This technique could dilute the blood and result in artificially low haemoglobin readings.
- A venous blood sample, which is not currently used in the NFHS, is the suggested approach for obtaining a more accurate haemoglobin result.
- The statistics on India's population, health, and nutrition provided by the NFHS can be combined with the data gathered from the dietary survey. A more thorough grasp of the nation's nutritional environment is made possible by this combination.
- Policymakers and healthcare professionals can learn more about the unique nutritional requirements and inadequacies in various regions by combining the data from DABS-I and NFHS. At both the national and regional levels, this information can direct the creation of tailored initiatives and programmes to address nutritional deficiencies, including anaemia.
- The dietary survey can offer helpful information, but it's vital to remember that correct laboratory testing, clinical symptoms, and physical examination should all be taken into account when diagnosing anaemia. The results of the dietary survey can support the diagnostic procedure and direct interventions and preventative measures, but they shouldn't serve as the sole basis for the diagnosis of anaemia.

Global Order As Technology's Much-Needed Pole Star

Context :

Since the Dot-com bubble burst in 2000, the speed and scale of technological advancement have fundamentally and irreversibly changed our civilizations and way of life. Without a doubt, this has made life easier, but it has also created difficult problems that necessitate revisiting some fundamental ideas in politics and administration.

Challenges to the notion of the nation-state

- **Physical Boundaries Could Be Eroding:** The concept of territorial sovereignty could be challenged by technology, notably in the area of cyberattacks. As a result of the expansion of global networks and the internet, actors can now influence and have an impact across boundaries virtually. As a result, nation-states face difficulties addressing externalities that originate outside of their territorial bounds, which poses threats to their economic and political viability.



- **Enforceability of Law:** The virtual character of technology and its capacity to cross geographic boundaries make it more difficult to enforce regulations. Without international collaboration or generally acknowledged rules, it can be difficult to acquire evidence and enforce jurisdiction when activities taking place in the virtual world violate the laws of a particular nation-state. The applicability of nation-specific regulation is further complicated by the universal nature of technology, making enforcement difficult.
- **Governance and Regulation:** The ineffectiveness of nation-states in administering and regulating emerging technologies has been brought to light by their emergence. Non-state actors currently operate outside of traditional administrative and regulatory frameworks, including multinational businesses, non-governmental organisations, and supranational organisations. This change casts doubt on nation-states' ability to maintain the pace of technological advancements and undermines their monopoly on delivering governance.
- **The dominance of the Private Sector:** Thanks to technology, private non-state actors are now able to offer goods and services that were previously only available through government and military organisations. For instance, private businesses like Apple or Google Maps now have a disproportionate amount of authority over the creation of topographical maps, which was once the purview of governmental organisations. The traditional role of nation-states as the primary conduits of governance and regulation is being further challenged by this transfer of power and authority from the public to the private sector.

Governing complexities and technology

- **Economic Power of Tech Giants:** Google, Amazon, Facebook, Apple, and Microsoft are the five largest American tech giants, and their combined valuation exceeds Germany's GDP, symbolically demonstrating their enormous economic might. This is primarily attributable to their management and use of data, which has emerged as a vital raw material in the era of the internet.
- **Influence of Meta-platforms:** These tech behemoths, known as meta-platforms, possess a previously unheard-of capacity to gather, examine, and fine-tune enormous volumes of data. Due to its size and resources, it can create complex algorithms that can affect or even control people and their behaviour.
- **Borderless nature of technology:** The globalisation and anonymity of the actors involved in technology pose problems for conventional notions of sovereignty, jurisdiction, and regulation. Since internet corporations' influence and impact cross international boundaries, it is challenging for individual nations to enact laws and safeguard the privacy of their residents.
- **Need for a Principle-based Global Order:** Establishing a principle-based global order for technology is necessary because it would help rising economies and address issues with enforceability. To ensure that all nations have a reliable system to regulate technology and safeguard their interests, this directive would set principles and norms relating to data privacy, the free movement of data, and regulatory frameworks.
- **Role of digital health:** The use of digital health technologies has become more common, particularly in the control of a worldwide epidemic like COVID-19. However, a data-sharing ecosystem that preserves privacy permits open data flow, and functions under a generally recognised legal framework is necessary for a digital health framework to be effective. Without such a structure, developing nations could have trouble navigating the shifting notions of their sovereignty and utilising digital health technology to their full potential.
- **Data Laws and Privacy Laws:** India understands the need for data transfer and privacy legislation to protect the information of its residents and foster trust in online services. However, without a more extensive global regulatory architecture that is regarded and embraced by all nations, implementing these rules on its own might not be adequate.
- **India's Leadership Opportunity:** As the G-20's current chair, India has the chance to lead efforts to create a rules-based international order for technology. India can play a significant role in influencing international discussions and collaborations regarding the regulation of digital assets, cross-border data flow, and other technology-related issues, just as it has demonstrated leadership in green initiatives like the International Solar Alliance and the Coalition for Disaster Resilient Infrastructure.
- **Collaboration and Consensus-building:** It would need considerable international collaboration and consensus-building to develop and put into effect a global regulatory framework for technology. It entails cooperating with nations that have various priorities and interests to create rules, regulations, and standards that handle the problems brought on by technology while taking into account the worries and aspirations of all parties.

Getting railway safety back on track after Odisha

Context :

After a train accident involving the 12841 Shalimar-Chennai Coromandel Express, the 12864 Sir M. Visvesvaraya Terminal Bengaluru-Howrah Superfast Express, and a goods train on June 2 in the Balasore district of Odisha, there have been countless television debates. However, the crucial question of how the Indian Railways might work to ensure that such catastrophes are never repeated is one that many panellists have been unable to answer persuasively, aside from the usual clichés.

Odisha Train Tragedy



- **Details of the Accident:** Two express trains and a goods train were involved in the accident, which happened in the Balasore district of Odisha. The Yashwantpur-Howrah Express's two carriages derailed close to the Bahanaga train station, colliding with the Coromandel Express as it approached. As a result, roughly 17 coaches derailed, some of which collided with a freight train's waggons.
- **Casualties:** Over 350 people were hurt in the collision, and at least 70 passengers were thought dead. As victims were being pulled out from under the derailed carriages, it was anticipated that the death toll would grow.
- **Accident Cause:** The incident's precise cause was not discovered immediately. To ascertain the cause, railway officials were awaiting the results of preliminary investigations.
- **Earlier Mishap:** This mishap was rated as one of the worst in recent memory. It is mentioned that the Coromandel Express also experienced an accident in 2013, which occurred in the Jaipur district, around 50 kilometres from the current disaster scene.
- **Government Response:** The Odisha government deployed multiple teams, including senior Secretaries and a Minister, to manage the situation. Doctors from

neighbouring districts and premier medical colleges were mobilized to provide medical assistance to the injured.

- **Assistance and Reactions:** Prime Minister Narendra Modi, Odisha Chief Minister Naveen Patnaik, and West Bengal Chief Minister Mamata Banerjee expressed grief over the accident. The Railways Minister announced compensation for the deceased and injured. Tamil Nadu Chief Minister M.K. Stalin dispatched a team to aid Tamils affected by the accident and promised necessary assistance.
- **Coordination:** To coordinate with railway officials and the Odisha government in providing rescue and relief to the affected passengers, the West Bengal government dispatched a delegation consisting of a Minister and an MP.

Possible reasons for this accident

- **Enhancing Access Control:** The event made clear the necessity for more robust protections against unauthorised access and interference with train signalling systems. Implementing several digital authorizations to access equipment and limiting the physical movement of staff members who aren't authorised maintainers could be one approach. To increase security, this would necessitate investigating cutting-edge technology and utilising mobile devices and IT applications.
- **Safety culture and training:** Fostering a safety culture within the Indian Railways is essential, with a focus on the value of adhering to protocols and procedures. All railway employees, including maintainers and signal operators, should get the proper training and awareness programmes to ensure that they are aware of the potential repercussions of their actions and the importance of their duties in guaranteeing passenger safety.
- **Strict Accountability:** If the inquiry finds that the maintainer's unsafe entry or shortcuts caused the accident, it is crucial to establish if these occurrences were one-offs or a pattern throughout the zone. Individuals who are found to be at fault should face harsh punishment, and high management should be held responsible for oversight and enforcement of safety measures failings.
- The Indian Railways should give upgrading the infrastructure for track and signalling systems priority. Investments in cutting-edge systems and technologies, like the Kavach complete signalling system, can improve rail safety and expand the number of trains that can run simultaneously. Track and signalling projects must be completed more quickly and with enough financing to ensure safer operations.
- **Continuous Monitoring and Auditing:** It is crucial to regularly monitor, audit, and inspect railway equipment, operational procedures, and infrastructure to spot possible risks and take immediate action to remedy them. Putting in place a reliable system for documenting and investigating near-misses and safety occurrences can give important information for anticipatory safety improvements.
- **Collaboration and International Best Practices:** The Indian Railways can benefit from understanding what is done internationally to ensure the safety of trains. Collaboration with well-known international railway operators and organisations can aid in knowledge acquisition and the use of successful tactics to raise safety standards.

Effective ways to tackle similar incidents:

- **Establish a comprehensive maintenance programme** that includes **routine inspections of rails, switches, bridges, and other infrastructure elements**. Regular maintenance and inspection. **Defects like worn-out rails or broken switches can be found and fixed to avoid potential derailments.**
- modernised monitoring techniques **Use cutting-edge technologies** to continuously check the **state of the tracks**, such as **track geometry vehicles and wayside monitoring systems**. By spotting anomalies like track misalignment or excessive wear, these technologies enable prompt maintenance and lower the danger of derailments.
- Set appropriate speed limits based on the **condition of the tracks, curves, and gradients**. Speed restrictions are particularly important in areas with known vulnerabilities or temporary track conditions, such as construction zones or areas prone to landslides.
- **Install and maintain a robust signalling system** to ensure clear and accurate communication between trains, trackside equipment, and dispatchers. This can help **prevent collisions, provide warnings about track conditions, and facilitate prompt response in case of emergencies.**
- Establish a **comprehensive maintenance programme** that includes routine inspections of rails, switches, bridges, and other infrastructure elements. Regular maintenance and inspection. Defects like worn-out rails or broken switches can be found and fixed to avoid potential derailments.
- **modernised monitoring techniques Use cutting-edge technologies** to continuously check the state of the tracks, such as track geometry vehicles and wayside monitoring systems. By spotting anomalies like track misalignment or excessive wear, these technologies enable prompt maintenance and lower the danger of derailments.
- PTC systems use advanced technology, such as GPS and computer algorithms, to monitor and control train movements. They can automatically intervene to prevent over speeding, unauthorised entry into work zones, or train collisions, significantly reducing the risk of derailments.
- Identify and mitigate human factors that can contribute to derailments, such as fatigue management programs for train operators, adherence to safety protocols, and effective communication between crew members.

Male-centric medicine is affecting women's health

Context:

Despite a growing corpus of evidence that insists on physiological differences (beyond the reproductive organs) between the sexes, the male model of medicine is flourishing, as is the tendency to treat women as smaller men. There is also a wealth of research on the genetic and epigenetic variations between men and women.

Points to Ponder:

- **Mandatory inclusion:** To lessen health disparities, the U.S. NIH Revitalization Act of 1993 required the participation of women and minorities in clinical studies. Equal representation has, nevertheless, been difficult to achieve.
- **Medical male role model:** Despite expanding knowledge of physiological differences outside of reproductive organs, the male model of medicine has been perpetuated by the propensity to treat women as smaller versions of males. This ignores how particular women's healthcare requirements are.
- **Generic drugs and gender disparity:** Gender discrepancies in clinical trials have greater repercussions in India, a big producer and consumer of generic medications. Women's bodies can react to generic medications differently, and their underrepresentation in clinical trials has led to problems including insufficient dosages.
- **Disparities in diagnosis and treatment:** Women frequently experience discrepancies in the diagnosis and treatment of medical illnesses. Women are more likely than men to experience depression and anxiety, for instance, but prejudice and stereotypes can impede accurate diagnosis and treatment, harming their general well-being.
- **Sex-specific illnesses and research gaps:** Research gaps in sex-specific conditions including polycystic ovarian syndrome, endometrial or breast cancer, and pregnancy-related problems are present. The knowledge of these disorders is hampered by inadequate financing and research, which therefore restricts effective healthcare interventions.
- **Obstacles to maternal health:** Due to pregnant women's continued underrepresentation in clinical trials and research, little is known about their unique healthcare requirements. Pregnancy and labour problems, this increases the risk of avoidable fatalities.
- **Funding disparities:** Disparities in funding may prevent adequate funding for research on problems that disproportionately impact women, such as migraine, endometriosis, and anxiety disorders. This reveals a lack of emphasis on and support for research on women's health.
- **Equitable healthcare:** Egalitarian Healthcare should take into account women as a separate group, with race, age, and class acting as subcategories. Understanding and effectively meeting women's healthcare demands calls for equal time, money, and research efforts.
- **Intervention in policy:** India has progressive laws about women's health, including the freedom to access abortion. To close the current gaps, however, legislative

actions are required to prioritise sex-specific medical research and assure its execution.

- **G-20 presidency opportunity:** Opportunity presented by India's G-20 presidency: Now is a good time to draw attention to the problem of gender inequality in clinical trials and healthcare. The Sustainable Development Goals for women's health can be aligned to further raise awareness and encourage action to reduce these inequalities.

Are non-communicable diseases increasing in India?

Context :

- According to the most recent official predictions for diabetes and other non-communicable diseases, 31 million additional Indians will develop diabetes in the next four years (2019–2021), and approximately 40% of the population will have abdominal obesity.
- Stress, a lack of physical activity, and an excessive intake of junk food are all contributing factors to the expanding NCD epidemic in Indians.
- Numerous initiatives have been put in place to improve the health infrastructure, promote early detection, and offer suitable and timely healthcare facilities for treatment.

Findings of the study :

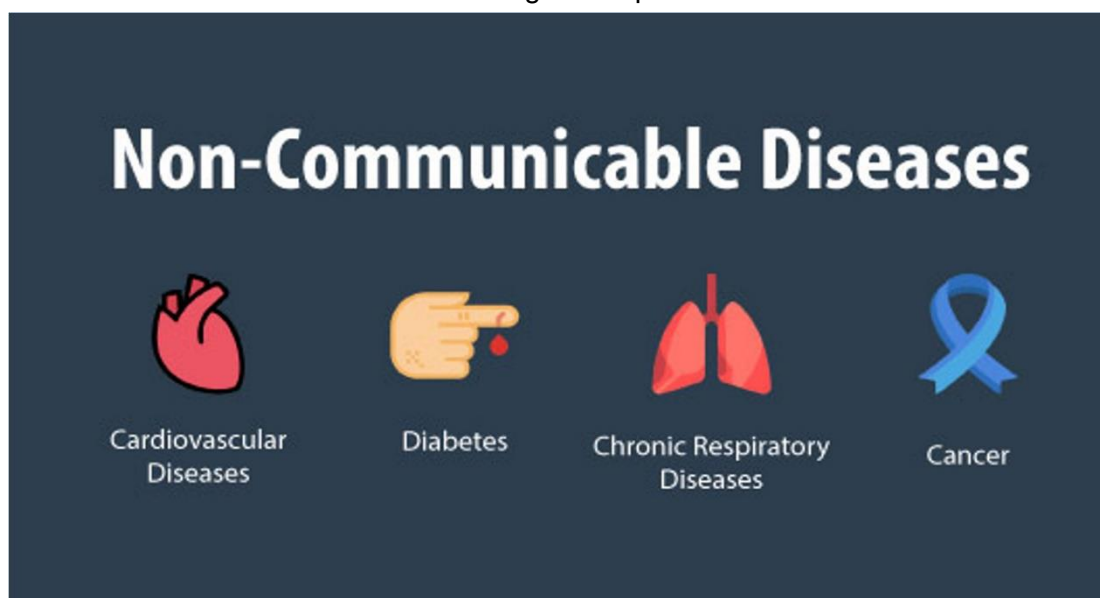
- India has 101 million people with diabetes and 136 million people with prediabetes.
- 315 million people in India have high blood pressure.
- 254 million people in India have generalized obesity.
- 351 million people in India have abdominal obesity.
- 213 million people in India have hypercholesterolemia.
- 185 million people in India have high low-density lipoprotein (LDL) cholesterol

Points to Ponder:

- **High prevalence of diabetes and prediabetes:** According to the report, there are 101 million cases of diabetes and 136 million cases of prediabetes in India. These figures suggest that the prevalence of diabetes and prediabetes is higher than previously thought. The **increased prevalence of diabetes** in India is a growing concern, and this research emphasises the urgent need for efficient prevention and management techniques.
- **Increased prevalence of metabolic NCDs:** According to the study, diabetes and other metabolic **NCDs like hypertension, obesity, and dyslipidaemia** are significantly more prevalent in India than previously thought. This raises the

possibility of a serious public health issue and highlights the requirement for all-encompassing actions to address these diseases on a national scale.

- **Disparities between urban and rural areas:** At present, prediabetes was the only metabolic NCD for which urban regions had greater prevalence than rural ones. If not controlled, the report foresees a future explosion of diabetes in rural India. This conclusion emphasises the value of specialised interventions and the establishment of healthcare infrastructure in rural regions to prevent an increase in diabetes cases.



- **Varieties between states and regions:** The study showed variances in the prevalence of metabolic NCDs among India's various states and regions. **Goa, Puducherry, and Kerala were among the states with higher prevalence rates of certain diseases like diabetes, hypertension, obesity, and dyslipidaemia.** The adoption of specialised policies and actions to meet the unique demands of each region can be guided by an understanding of these variances.
- **Implications for national policies and interventions:** The study's findings have significant ramifications for national policies and initiatives in India as a whole. The urgency of state-specific policies and treatments is emphasised to combat the growing epidemic of metabolic NCDs. For these disorders to be effectively managed, the healthcare system must put a strong emphasis on **early diagnosis, prevention, and referral to the proper healthcare facilities.**
- **The dual problem of malnutrition and obesity:** **Malnutrition and obesity are two problems** that India must simultaneously address, according to experts. Despite the abundance of food, metabolic NCDs are becoming more prevalent due to variables such as fast food intake, sedentary lifestyles, lack of sleep, inactivity, and stress. It is critical to address these variables through wellness-focused activities, such as promoting a nutritious diet and regular exercise.
- **Initiatives from the government:** The Indian Health Ministry has highlighted diabetes, cancer, chronic respiratory diseases, and cancer as the top four NCDs to be concerned about. Programmes have been put in place to improve healthcare infrastructure, develop human resources, promote health, and increase public awareness of NCD prevention, early diagnosis, and appropriate healthcare referrals to combat these disorders.

Preventive Measures:

- **Healthy Diet:**
 - Consume a balanced diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats.
 - Limit the intake of processed and sugary foods, salt, saturated and trans fats, and excessive alcohol.

- **Regular Physical Activity:**
 - Engage in moderate-intensity aerobic exercises, such as brisk walking, swimming, or cycling, for at least 150 minutes per week.
 - Include strength training exercises to improve muscle strength and flexibility.

- **Avoid Tobacco and Alcohol:**
 - Quit smoking and avoid exposure to second-hand smoke.
 - Limit alcohol consumption and follow recommended guidelines.

- **Maintain a Healthy Weight:**
 - Maintain a healthy body weight through a combination of healthy eating and regular physical activity.
 - Aim for a body mass index (BMI) within the normal range (18.5-24.9).

- **Manage Stress:**
 - Practice stress management techniques like relaxation exercises, deep breathing, meditation, or engaging in hobbies.
 - Seek support from friends, family, or professionals if needed.

Ensuring Drug Safety in India: Challenges, Implications, and the Way Forward

Context:

The safety and quality of drugs manufactured in India have been a matter of concern in recent years after several reports of drugs produced in India causing harm and even deaths to patients worldwide.

Relevance:

GS Paper 2 – Governance, Public Health, accountability and regulatory reforms.

Prelims:

- Drug Regulation in India
- Functions of the Central Drugs Standard Control Organization (CDSO)

Mains:

- Critically analyse the challenges faced by the Indian drug regulator in ensuring the safety and quality of drugs manufactured in India. What measures should be taken to address these challenges effectively?
- Discuss the implications of the recent incidents involving Indian-made drugs causing harm to patients worldwide. Examine the role of the drug regulator and the pharmaceutical industry in ensuring drug safety. Suggest measures to strengthen drug regulation in India.

Dimensions of the Article:

- Challenges in ensuring drug safety in India
- Measures to strengthen drug regulation
- Challenges and measures to overcome:

Challenges in ensuring drug safety in India:

- **Lack of stringent regulatory measures:** The Indian drug regulator has been criticized for its inadequate oversight and regulatory enforcement, allowing substandard drugs to enter the market.
- **Limited capacity for inspections and quality control:** The sheer volume of drug manufacturing facilities in India poses a challenge in conducting regular inspections and ensuring adherence to quality standards.
- **Corruption and influence of the pharmaceutical industry:** Instances of regulatory capture and corruption within the drug regulatory system have compromised the safety and quality of drugs.

- **Inadequate coordination between regulatory agencies:** There is a need for better coordination between different regulatory agencies involved in the drug approval and monitoring process.

Measures to strengthen drug regulation:

- **Strengthening regulatory infrastructure:** The Indian drug regulator should invest in building its capacity for inspections, testing, and quality control. Adequate resources and trained personnel should be allocated to ensure effective oversight.



- **Enhancing transparency and accountability:** The regulator should adopt transparent processes, including publishing inspection reports and regulatory decisions. Mechanisms for reporting adverse drug reactions and holding manufacturers accountable should be established.
- **Strengthening international collaborations:** Collaborating with international regulatory bodies and sharing information on drug safety can help improve the quality of drugs exported from India.
- **Stringent penalties for non-compliance:** Imposing severe penalties, including criminal charges, for manufacturing and selling substandard or counterfeit drugs can act as a deterrent.

Challenges and measures to overcome:

- **Lack of political will:** Overcoming political interference and ensuring the independence of the drug regulator is crucial for effective regulation. Measures such as institutional autonomy and clear guidelines for appointments can help address this challenge.
- **Industry resistance:** The pharmaceutical industry may resist stricter regulations due to concerns over increased compliance costs. Engaging in dialogue with industry stakeholders and demonstrating the long-term benefits of ensuring drug safety can help overcome this resistance.

Conclusion:

Ensuring the safety and quality of drugs manufactured in India is of paramount importance. The recent incidents involving Indian-made drugs causing harm to patients highlight the

need for urgent action. The Indian drug regulator must prioritize the well-being of patients over industry interests and take proactive measures to strengthen drug regulation.

Towards Self-Sufficiency: Exploring Strategies for Establishing a Semiconductor Fab in India

Context:

The semiconductor industry plays a crucial role in the technological advancement of nations, and India has recognized the importance of establishing a domestic semiconductor fabrication plant (fab) to reduce its dependence on imports and strengthen its strategic position.

Relevance:

GS-02 (Government policies & interventions), GS-03(Growth and Development)

Prelims:

- Semiconductors
- Critical infrastructure
- Fab industry

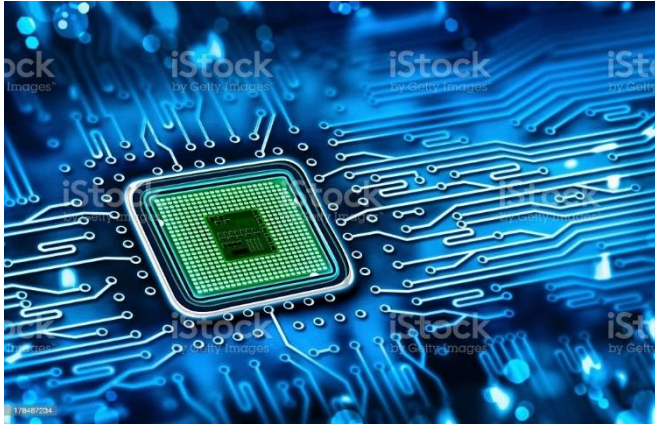
Mains Questions:

a) Discuss the challenges faced by India in establishing a semiconductor fabrication plant. What lessons can be learned from China's semiconductor industry? (Word limit: 250 words)

b) Analyse the feasibility of setting up Assembly, Testing, Packaging, and Marking (ATMP) units as a stepping stone towards establishing a full-fledged semiconductor fab in India. (Word limit: 250 words)

What are semiconductor chips?

- Semiconductors are materials with conductivity between conductors and insulators.
- They can be pure elements like silicon or compounds like gallium arsenide.
- Semiconductor chips are the basic building blocks of modern electronics and information technology products.



- They are essential components in automobiles, household gadgets, and medical devices.
- The COVID-19 pandemic has increased the demand for semiconductor chips as more activities shift online.
- Shortages of semiconductor chips have caused disruptions in various industries, leading to pent-up demand and subsequent supply shortages.

Need for Promoting Semiconductor Industry:

- Semiconductor chips are essential for the functioning of electronic products and drive the development of information and communication technologies (ICT).
- They play a crucial role in critical infrastructures, such as communication and power transmission, with implications for national security.
- Developing the semiconductor industry has a multiplier effect across various sectors of the economy and strengthens integration into the global value chain.
- Only a few countries, including the United States, Taiwan, South Korea, Japan, and the Netherlands, dominate the semiconductor manufacturing industry.

Dimensions of the Article:

- Challenges in Establishing a semiconductor fab in India
- Lessons from China's semiconductor industry
- Feasibility of ATMP units and the way forward

Challenges in establishing a semiconductor fab in India:

- India's attempts to set up a semiconductor fab have faced significant challenges. The first attempt in 2007, through the Special Incentive Package (SIP), did not yield any response.
- The subsequent Modified SIP in 2012 showed promise, with two consortia approved by the Cabinet and substantial investment and incentives offered. However, both consortia failed to mobilize resources effectively. Several factors contribute to these challenges:
- **High costs and complexity:** Semiconductor fabrication involves high costs and complexity, particularly with the progress of miniaturization and adherence to Moore's law. This has led to a decline in the number of participants in the industry, making it difficult to attract investors for a fab in India.
- **Global competition:** China, backed by massive government support and lower manufacturing costs, rapidly developed its semiconductor fab industry and gained a strategic advantage in chip-making. The US and its allies have subsequently restricted the transfer of advanced fab-related technology to China. India needs to contend with these global competitors in chip warfare.
- **Ecosystem development:** Establishing a chip manufacturing ecosystem in a greenfield location presents a major challenge. It requires extensive infrastructure, including the availability of chemicals, gases, clean water, and skilled manpower.

Additionally, the art of chip-making and ensuring high-quality production with satisfactory yields is crucial for the success of a fab.

Lessons from China's semiconductor industry:

- China's semiconductor industry provides valuable lessons for India. China started late in the fab industry but acquired loss-making fabs worldwide and developed its fab ecosystem. India can learn from this approach by considering the following strategies:
- **Acquiring existing fabs:** Acquiring existing fabs offers advantages such as relatively lower costs, stabilized technology, established supply chains, and existing product lines and markets. This approach enables India to build the fab ecosystem, train human resources, and save funds that can be invested in advanced research and development (R&D) for state-of-the-art fabs in the future.
- **Assembly, Testing, Packaging, and Marking (ATMP) units:** Setting up ATMP units can serve as a stepping stone towards establishing a full-fledged fab. These units focus on packaging chips and can help develop the necessary fab ecosystem while generating value. China has over 100 ATMPs, indicating their effectiveness in developing the semiconductor industry.

Feasibility of ATMP units and the way forward:

- While ATMP units can contribute to ecosystem development, their value in actual chip-making is limited. Therefore, India must carefully assess the feasibility and long-term strategic value of ATMP units as a stepping stone towards a full-fledged fab. It is essential to strike a balance between establishing ATMPs and investing in R&D for advanced fab technologies.
- **To overcome the challenges and establish a successful fab in India, the government should consider the following measures:**
 - **Robust policy support:** The government should provide a **conductive policy environment that incentivizes investment in fabs, encourages R&D, and fosters collaboration** between academia, industry, and research institutions. This support will attract domestic and foreign investors, enhance technology transfer, and promote indigenous innovation.
 - **Skill development and research:** Investments should be made in skill development programs and research initiatives to nurture a skilled workforce and develop indigenous chip design capabilities. **Collaborations with global chip manufacturers and research institutions** can facilitate knowledge exchange and technological advancements.
 - **Infrastructure development:** To attract investments, the government should focus on developing world-class infrastructure, including industrial parks, reliable power supply, efficient logistics, and high-speed internet connectivity. Special economic zones can be established to provide a conducive ecosystem for semiconductor manufacturing.

Conclusion

- Establishing a semiconductor fab in India is a critical step towards achieving self-sufficiency in chip manufacturing.
- While previous attempts have faced challenges, India can learn from China's success and explore alternative strategies such as acquiring existing fabs and setting up ATMP units. However, it is crucial to strike a balance between short-term gains and long-term objectives.
- The government should provide robust policy support, prioritize skill development and research, and invest in infrastructure to attract investments and foster innovation. By implementing these measures, India can overcome its dependence on semiconductor imports, enhance its strategic position, and contribute to the global semiconductor industry.

Overkill: The Manipur government's decision to extend net shutdowns lacks merit

Context:

The decision of the Manipur government to extend internet shutdowns in the state. It highlights the negative impact of such shutdowns on economic activities and livelihoods while questioning the government's justification for the bans. The editorial also refers to the Supreme Court's ruling on the suspension of internet services as a violation of fundamental rights.

Relevance:

GS-02 (Government Policies & Interventions)

Mains Questions:

- Analyse the impact of internet shutdowns on economic activities and livelihoods. How can governments strike a balance between maintaining law and order and ensuring citizens' fundamental rights? (250 words)
- Discuss the significance of the Supreme Court's ruling on the suspension of internet services as a fundamental right. How can this ruling guide policymaking in addressing public emergencies while upholding citizens' rights? (250 words)

What is an Internet Shutdown?

- **Definition of Internet Shutdown:**

- Internet shutdowns are deliberate actions taken by governments or entities on behalf of governments to disrupt access to and use of information and communications systems online.
- Shutdowns can involve complete blocks of internet connectivity or limited access through throttling bandwidth or restricting mobile services to 2G.

➤ **Purpose and Reasons for Internet Shutdowns:**

- Governments employ internet shutdowns for various reasons, citing concerns such as civil society movements, security measures, and electoral proceedings.
- Shutdowns severely hinder the sharing and viewing of videos, live broadcasts, and journalistic work, impeding human rights monitoring and reporting.

➤ **Impact of Internet Shutdowns:**

- Complete or limited access to the internet affects the ability of individuals to use online services effectively.
- Throttled or restricted access makes it challenging to engage in meaningful internet activities, rendering it difficult to fully utilize the internet's potential.

➤ **Crippling Effects on Freedom of Expression:**

- In violation of the fundamental right to freedom of speech and expression guaranteed



under Article 19(1)(a) of the Indian Constitution. This provision ensures that every citizen has the right to express their opinions, ideas, and thoughts freely, both online and offline.

- Furthermore, Article 19(2) of the Indian Constitution provides for reasonable restrictions on the right to freedom of speech and expression. However, internet shutdowns can be argued to be disproportionate and not meet the test of reasonableness.
- The Supreme Court of India has consistently emphasized the importance

of protecting the freedom of expression as a cornerstone of democracy. In landmark judgments such as *Shreya Singhal v. Union of India* (2015), the Court has recognized the significance of the Internet as a medium for exercising free speech and held that any restrictions on access to the Internet must meet the standards of necessity and proportionality.

➤ **Negative Impact on Human Rights:**

- Internet shutdowns hinder the exercise of fundamental human rights, including the right to freedom of speech and access to information.
- Restrictions on internet access prevent individuals from enjoying their rights fully and limit their ability to participate in democratic processes.

Dimensions of the article:

- The need for balanced measures.

- Violation of fundamental rights.
- Addressing the situation in Manipur.
- Beleaguered leadership and ethnic identities.

The need for balanced measures:

- The adverse effects of Internet shutdowns on economic activities and livelihoods: Internet shutdowns have a severe impact on various economic sectors, including e-commerce, online businesses, and digital services. With limited or no internet access, businesses are unable to operate effectively, leading to financial losses and job insecurity for individuals who depend on these sectors for their livelihoods. The shutdowns hinder the growth of the digital economy and impede the overall development of the state.
- Restrictions on accessing vital services, such as e-commerce, hamper development: In today's interconnected world, the internet plays a crucial role in accessing essential services, including healthcare, education, and banking. Internet shutdowns disrupt these services, negatively affecting the well-being and progress of the citizens. Students are unable to access online educational resources, patients face challenges in receiving telemedicine services, and individuals find it difficult to carry out online transactions. Such restrictions hinder socioeconomic development and exacerbate existing inequalities.
- The government should seek alternative measures to address threats to law and order: While maintaining law and order is a legitimate concern for any government, resorting to prolonged internet shutdowns as a solution is an overreach. There are alternative measures available, such as targeted surveillance, intelligence-driven operations, and increased coordination between law enforcement agencies. A comprehensive approach that combines effective policing, community engagement, and dialogue can better address the root causes of violence and restore peace.

Violation of fundamental rights:

- The Manipur government's extension of internet shutdowns lacks legal merit: The orders seeking to extend the shutdowns in Manipur do not explicitly invoke public emergency or public safety, as required by Section 5(2) of the Telegraph Act, 1885 and Telegraph Rules. The government's justification of citing threats to "law and order" and "anti-social elements" without proper evidence raises concerns about the misuse of power and undermines the rule of law.
- The Supreme Court's ruling in *Anuradha Bhasin vs Union of India* (2020) emphasizes the importance of upholding citizens' rights: The apex court's judgment established that the indefinite suspension of internet services is a violation of the fundamental right to freedom of speech and the freedom to carry out commercial work using the internet. The ruling highlights the need for proportionality and a time-bound approach in imposing restrictions, ensuring that they do not extend beyond what is necessary to address the situation at hand.
- The principle of proportionality and necessary duration should guide the imposition of internet suspensions: Any restriction on fundamental rights, including internet shutdowns, should be proportionate to the threat and limited in duration. The government should consider less intrusive measures that target specific areas or individuals involved in unlawful activities rather than imposing a blanket shutdown.

affecting the entire population. This approach strikes a balance between maintaining law and order and safeguarding citizens' rights.

Addressing the situation in Manipur:

- Restoring confidence among stakeholders and engaging civil society actors: Rebuilding trust and confidence among all stakeholders, including different communities and civil society organizations, is essential for long-term peace and stability. The government should actively involve these actors in the decision-making process and engage in open dialogue to address grievances and concerns.
- Facilitating inter-community dialogue to reduce tensions and isolate extremists: The tensions between Meiteis and Kukis in Manipur require a focused effort towards fostering inter-community dialogue. Building platforms for meaningful discussions and encouraging cultural exchanges can help bridge the divide and foster a sense of unity and shared identity. It is crucial to isolate and address the concerns of extremists who incite violence or promote hatred, ensuring they are held accountable for their actions.
- Pursuing a step-by-step approach towards restoring peace and normalcy: Instead of relying solely on internet shutdowns as a substitute for addressing the underlying issues, the government should adopt a step-by-step approach. This involves comprehensive law enforcement strategies, intelligence-based operations, and socio-economic initiatives aimed at promoting inclusivity and addressing the grievances of marginalized communities. Rebuilding trust and social cohesion requires a holistic approach that goes beyond temporary measures.

Beleaguered leadership and ethnic identities:

- The challenges posed by a leader who has lost the confidence of colleagues: The effectiveness of governance and decision-making is greatly influenced by the leadership's credibility and ability to garner support. In Manipur, the beleaguered Chief Minister's lack of confidence among his colleagues raises concerns about the government's capacity to address the situation effectively. It highlights the need for stable and capable leadership to steer the state towards peace and development.
- The need for community representatives to rise above ethnic identities for peacebuilding: Manipur's diverse ethnic landscape presents a unique challenge in achieving lasting peace. Community representatives must rise above their ethnic identities and work towards inclusive solutions that prioritize the well-being of all citizens. Encouraging inter-community cooperation, promoting cultural understanding, and ensuring equal representation in decision-making processes can help overcome divisions and foster harmony.
- Sporadic violence and the plight of displaced individuals require urgent attention: The persistence of sporadic violence in Manipur is indicative of the underlying issues that need to be addressed urgently. The government must prioritize the safety and well-being of displaced individuals, ensuring their timely return and rehabilitation. Providing adequate support, both in terms of physical infrastructure and psychosocial assistance, is crucial for rebuilding lives and restoring normalcy.

Way forward:

- The Manipur government should heed the Manipur High Court's decision and put an end to the internet shutdowns. Instead of relying solely on blanket bans, the government needs to adopt a comprehensive approach that addresses the underlying issues contributing to the unrest. This involves restoring confidence among stakeholders, engaging with civil society actors, isolating extremists, and pursuing a step-by-step approach towards peacebuilding.
- Furthermore, community representatives must transcend their ethnic identities and work towards long-term solutions that promote harmony and inclusivity. By striking a balance between maintaining law and order and upholding citizens' fundamental rights, the government can ensure the restoration of peace and normalcy in Manipur.

Conclusion:

The extension of internet shutdowns in Manipur lacks legal merit and violates citizens' fundamental rights. The government should focus on implementing effective strategies to restore peace and normalcy instead of relying solely on blanket bans. By adopting a balanced approach that addresses the underlying issues, engages all stakeholders, and upholds citizens' rights, the government can ensure the restoration of peace and create an environment conducive to the overall development of Manipur.

Boosting Indigenous Fighter Jet Engine Manufacturing: The India-US Defence Deal

Context:

The ongoing official State Visit to the US by the Indian Prime Minister has highlighted a significant defence deal between General Electric (GE) Aerospace and Hindustan Aeronautics Limited (HAL) for the joint production of fighter jet engines in India.

Relevance:

GS-02 (Bilateral agreements involving/ affecting India's interest)

Mains Questions:

Examine the potential impact of the deal on India's quest for self-reliance in defence and its efforts to counter China's influence in the region. (250 words)

Dimensions of the Article:

- Significance of the India-US Defence Deal.

- Implications for India's Defence Sector.
- Geopolitical Implications.

Significance of the India-US Defence Deal:

➤ Strengthening Indigenous Aerospace Capabilities:

– The collaboration between GE Aerospace and HAL for joint production of fighter jet engines in India is a significant step towards enhancing the country's indigenous aerospace capabilities.



– The technology sharing aspect of the deal allows HAL to acquire critical technology from GE Aerospace, enabling the manufacture of GE-F414 jet engines that will power the indigenous Light Combat Aircraft (LCA) Teja's Mk-II.

➤ Unprecedented Technology Transfer:

– The deal marks an unprecedented level of technology transfer, with reports suggesting

that the US has agreed to transfer approximately 80% of the technology value to India.

– This technology transfer will not only enhance India's defence manufacturing capabilities but also contribute to the growth of the domestic aerospace industry by promoting research, development, and innovation.

➤ Strategic Partnership between India and the US:

– The deal highlights the strengthening of the defence partnership between India and the US, as the US recognized India as a major defence partner in 2016.

– Such strategic partnerships facilitate the sharing of critical military equipment and technology, paving the way for further collaborations and cooperation in the defence sector.

Implications for India's Defence Sector:

➤ Overcoming Challenges in Indigenous Aero-Engine Development:

– India's quest for indigenous aero-engines has been a long-standing goal, with previous efforts facing technical limitations and inadequate resources.

– The collaboration with GE Aerospace brings advanced technology and expertise, overcoming the challenges faced by India in developing suitable engines for indigenous fighter aircraft.

➤ Boosting Self-Reliance in Defence:

– The joint production of fighter jet engines aligns with India's goal of achieving self-reliance in defence manufacturing.

– By reducing dependence on imports for critical components, India can enhance its strategic autonomy and reduce vulnerabilities in the defence sector.

➤ **Strengthening Domestic Aerospace Industry:**

– The technology transfer and collaboration with GE Aerospace will have a cascading effect on the domestic aerospace industry, fostering research, development, and innovation.

– The increased participation of Indian companies in the production of fighter jet engines will create employment opportunities, promote skill development, and contribute to the growth of the economy.

➤ **Enhancing Defence Preparedness:**

– The joint production of fighter jet engines will enhance the operational readiness and combat capabilities of the Indian Air Force.

– The advanced technology and performance characteristics of the GE-F414 engines will contribute to the development of next-generation indigenous fighter aircraft, ensuring India's defence preparedness in the evolving security landscape.

Geopolitical Implications:

➤ **Countering China's Influence:**

– The India-US defence deal for joint production of fighter jet engines holds significance in countering China's growing influence in the region.

– Strengthening defence cooperation with the US enhances India's deterrence capabilities and reinforces its position as a regional power.

➤ **Reducing Dependence on Russian Hardware:**

– The collaboration with GE Aerospace offers an alternative to India's traditional dependence on Russian hardware for fighter jet engines.

– This diversification of supply sources reduces reliance on a single country, mitigates geopolitical risks, and provides flexibility in defence procurement.

➤ **Fostering High-Tech Cooperation:**

– The India-US defence deal fosters high-tech cooperation between the two countries, encouraging joint research, development, and innovation in the defence sector.

– This collaboration not only enhances India's technological capabilities but also strengthens diplomatic ties and strategic partnerships.

Way Forward:

The India-US defence deal for joint production of fighter jet engines signifies a significant leap in advancing India's indigenous aerospace capabilities and self-reliance in defence manufacturing. To maximize the benefits of this collaboration, India should focus on continuous research, development, and innovation, along with promoting a conducive ecosystem for the growth of the domestic aerospace industry. Furthermore, nurturing

strategic partnerships with other countries and investing in cutting-edge technologies will be crucial in maintaining India's technological edge and ensuring its national security.

India-U.S. partnership: the defining relationships of the 21st century.

Context:

- During Prime Minister Narendra Modi's state visit to the United States, U.S. President Joseph Biden expressed his belief that the India-U.S. partnership will be one of the defining relationships of the 21st century.
- This visit witnessed the announcement of new agreements and partnerships in various sectors, including defence cooperation, semiconductor industry investments, and advancements in quantum computing and AI. These developments have further strengthened the ties between India and the U.S.

Relevance:

GS-02 (Bilateral agreements)

Mains Questions:

1. Analyse the significance of Prime Minister Narendra Modi's state visit to the United States in strengthening India-U.S. relations. (150 words)
2. Discuss the key agreements and partnerships announced during Prime Minister Narendra Modi's visit to the United States and their potential implications for India. (150 words)

Dimensions of the article:

- **Defence Cooperation:** A Trailblazing Agreement
- **Semiconductor Industry Investments:** Fuelling Technological Advancements
- **Advancements in Quantum Computing and AI:** Driving Innovation
- **Mineral Security Partnership:** Ensuring Supply Chain Security
- **Cooperation on Critical and Emerging Technologies:** Addressing Global Challenges
- **Space Exploration:** Realizing Ambitions



Defence Cooperation: A Trailblazing Agreement

- The state visit showcased a groundbreaking deal between India and the U.S. for the co-production of jet engines in India. This agreement, described as “trailblazing” by the White House, signifies a remarkable level of technology transfer.
- It not only enhances India’s defence capabilities but also deepens the defence partnership between the two countries.
- This development holds immense significance in strengthening bilateral ties and promoting defence collaboration.

Semiconductor Industry Investments: Fuelling Technological Advancements

- The collaboration between India and the U.S. in the semiconductor industry is a crucial step toward India’s aspirations in the technology sector. This partnership will bolster India’s manufacturing capabilities, contributing to its goal of becoming a global hub for semiconductor production.
- The agreement holds the potential to accelerate India’s economic growth and create numerous employment opportunities, thus solidifying India’s position as a leading player in the global technology landscape.

Advancements in Quantum Computing and AI: Driving Innovation

- The partnership between India and the U.S. in quantum computing and advanced AI ushers in a new era of collaboration in cutting-edge technologies.
- This cooperation will stimulate innovation and research within India, fostering technological advancements and positioning the country as a key player in emerging technologies.
- The developments in quantum computing and AI open up vast opportunities for India to lead the way in these transformative fields.

Mineral Security Partnership: Ensuring Supply Chain Security

- India's decision to join the 11-nation mineral security partnership, with a particular focus on critical minerals, is of strategic importance.
- With China's dominance in critical minerals, this partnership ensures a diversified and secure supply chain for India. It also aligns with India's vision of self-reliance and strengthens its position in the global mineral market.
- This agreement fortifies India's resource security and reduces dependency on a single source.

Cooperation on Critical and Emerging Technologies: Addressing Global Challenges

The emphasis on critical and emerging technologies, especially in the clean energy sector, reflects the shared commitment of India and the U.S. to tackle global challenges. This cooperation promotes research collaboration, technological advancements, and investments in clean energy. By leveraging each other's strengths, India and the U.S. aim to drive innovation, foster sustainable development, and address pressing issues such as climate change.

Space Exploration: Realizing Ambitions

- India's participation in the Artemis Accords for cooperation in space exploration, along with the NASA-ISRO partnerships for human spaceflight, showcases India's growing aspirations in the field of space.
- These agreements pave the way for collaboration in space research, technology, and exploration, propelling India's space ambitions to new heights.
- The advancements in space exploration highlight India's determination to excel in the cosmic domain.

Way Forward:

To further strengthen the India-U.S. relationship, it is crucial to address areas of discord, such as differences in policies toward Russia's actions in Ukraine and confrontations with China. Additionally, concerns raised by U.S. lawmakers regarding democracy and human rights in India should be acknowledged and addressed. Prime Minister Modi can effectively address these concerns by emphasizing the importance of human values and democratic principles during a press conference on his return. Sustained engagement, regular dialogue, and a focus on mutual understanding and cooperation are essential for the future of this partnership.

Conclusion:

Prime Minister Narendra Modi's state visit to the United States has solidified the India-U.S. partnership and opened up new avenues for collaboration. The agreements and partnerships announced during this visit demonstrate a shared commitment to strategic cooperation, technological advancements, and addressing global challenges. To harness the full potential of this partnership, it is imperative to address areas of discord and concerns regarding democracy and human rights. By strengthening the bilateral relationship, India and

the U.S. can play a significant role in shaping the 21st century and establishing a more prosperous and secure world.

A New Regime: India's Approach to New Drugs and Vaccines

Context:

- In recent developments, the Drug Controller General of India has granted clearance, under the provisions of 'emergency use authorization,' to a new mRNA vaccine for COVID-19. Developed by Pune-based Gennova Biopharmaceuticals, this vaccine demonstrates efficacy against the dominant Omicron variant.
- The approval of GEMCOVAC-OM holds significance as it showcases India's capability to produce mRNA vaccines, known for their potential in rapid production and scalability, which could be valuable in combating future viruses.

Relevance:

GS-02 (Government Policies and Interventions in various sectors)

Prelims:

- **Types of Vaccines**
- **Virus Strain and mutation**
- **Spike Protein**

Mains Questions:

Evaluate the challenges associated with the emergency use authorization regime for drug and vaccine approvals and propose measures to ensure safety and monitor adverse reactions. (150 words)

Dimensions of the article:

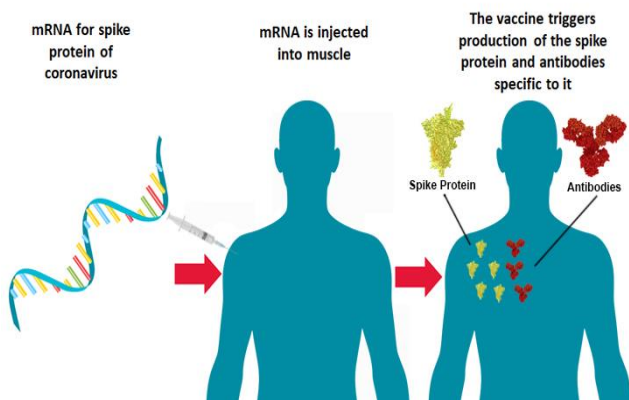
- Progressive Testing and Emergency Use Authorizations
- The Need for a Streamlined Regulatory Process
- Balancing Flexibility and Safety

Progressive Testing and Emergency Use Authorizations:

- Traditionally, vaccines undergo a series of testing stages, progressing from laboratory experiments to animal trials and finally expanding human test cohorts. These stages ensure the safety and efficacy of the vaccine, disqualifying those that cause harm or fail to outperform existing alternatives.
- However, the COVID-19 crisis necessitated a departure from this risk-averse approach, prompting global drug regulators to allow vaccine manufacturers to combine multiple stages while evaluating efficacy. This flexibility, inherent in the framework of 'emergency use authorizations (EUA),' enabled the expedited evaluation of experimental formulations.
- While the U.S. Food and Drug Administration (FDA) has a long-standing history of evaluating novel drug and vaccine candidates, India's regulatory system has primarily focused on assessing formulations already approved abroad. This distinction highlights the historic challenges of mistrust, arbitrary decrees, and lax regulations that have plagued clinical trials in India.

The Need for a Streamlined Regulatory Process:

- Although the New Drugs and Clinical Trials Rules of 2019 facilitated EUA for COVID-19 vaccines in India, the country's credible regime of phased clinical trials and independent regulation for new drugs is still in its nascent stages.



- India needs to establish a streamlined regulatory process that eliminates non-essential steps, accelerates approvals, and remains vigilant in monitoring the safety and adverse reactions associated with new drugs and vaccines.

Balancing Flexibility and Safety:

- While maintaining the ability to expedite critical interventions, India must prioritize safety and ensure a robust system for monitoring adverse reactions from new drugs and vaccines. This necessitates striking a delicate balance between the need for accelerated approvals and thorough safety evaluations.
- By adopting a hawk-eyed approach toward potential adverse reactions, India can instil confidence in the public and prevent any unwarranted harm caused by hasty regulatory decisions. Developing a comprehensive mechanism for post-authorization surveillance and addressing any emerging safety concerns should be integral to the regulatory framework.

Way Forward:

- To enhance India's approach to new drugs and vaccines, several measures can be implemented.
- Firstly, there should be a concerted effort to establish an **independent and robust regulatory authority** that can conduct thorough assessments of novel formulations.

This includes building the capacity to evaluate the safety and efficacy of emerging technologies such as mRNA vaccines.

- Secondly, **enhancing public trust in clinical trials** requires transparent and evidence-based decision-making processes. Stringent regulations must be implemented to ensure ethical conduct, minimize arbitrary decrees, and eradicate any historical flaws that have plagued India's clinical trial landscape.
- Lastly, **continuous monitoring and surveillance systems** must be established to proactively identify and address any adverse reactions or safety concerns associated with newly approved drugs and vaccines.

Conclusion:

India's recent authorization of Gennova Biopharmaceuticals' mRNA vaccine marks a significant milestone in the country's vaccine landscape. While the emergency use authorization regime provided the flexibility needed during the COVID-19 crisis, **India must develop a streamlined regulatory process that prioritizes safety and vigilance against adverse reactions.** By focusing on a balanced approach that combines accelerated approvals with robust monitoring systems, India can foster public trust, advance healthcare innovation, and effectively address future health challenges.

Submarine Deal From Germany

Context:

German Defence Minister Boris Pistorius spoke with Indian Defence Minister Rajnath Singh on the status of a deal for the purchase of six sophisticated conventional submarines by the Indian Navy under Project-75I.

Project-75I.

The **Indian Navy** initiated **Project 75** India, a strategic submarine construction program to **create advanced Scorpene-class diesel-electric submarines in India.** The initiative, which is one of **India's largest defence deals**, aims to **improve the Navy's capability in underwater warfare.** The Indian government authorized the **program in 1997**, and the first submarine **was launched in 2015.** Project 75 has so far produced six submarines: INS Kalvari, INS Khanderi, INS Karanj, INS Vagsheer, INS Vela, and INS Vagir.

History of the project:

- India signed a deal with French defence contractor DCNS in 1998 to build four Scorpene-class attack submarines. This served as the foundation for Project 75.
- However, following the end of the Kargil War in 1999, the Government of India devised and approved a new thirty-year strategy.

- Since independence, India has prided itself on self-sufficiency, and the new strategy is based on the same principle.
- This strategy included two parallel manufacturing lines, one under the pre-existing Project 75 and the other under the new Project 75 India. (more popularly known as Project 75i).

Points to Ponder:



- **Purchase of Submarines:** The progress of a deal for the purchase of six modern conventional submarines by the Indian Navy under Project-75I was the main topic of debate.
- **German Company Support:** To win the submarine contract, Minister Pistorius spoke persuasively on behalf of the German firm ThyssenKrupp Marine Systems (TKMS). He emphasised that the German manufacturing sector, in particular, had a stellar reputation.
- **Flagship Project:** Minister Pistorius described the submarine agreement as a potential "flagship project" for collaboration between Germany and India. This means that the agreement might act as a notable illustration of bilateral cooperation.
- **Military Cooperation to be Intensified:** Minister Pistorius stated a desire to increase military cooperation with the Navy as well as other services like the Air Force. This suggests a greater desire to broaden the range of defence cooperation between the two nations.
- **Make in India Initiative:** The "Make in India" project, which aims to stimulate indigenous manufacturing and draw international investment, has the endorsement of the German Defence Minister. He emphasised that cooperation between businesses from both countries would be necessary for the initiative's organisation and implementation.
- **Competition:** Minister Pistorius confirmed that there were rivals in the race for the submarine contract. He implied that TKMS will face competition from other

businesses for the contract by saying that the final result will depend on which company wins.

- **Federal Government Support:** Minister Pistorius emphasised that the German federal government supports the country's defence industry's efforts, although he is unable to sign contracts. He gave his word that he would keep providing help.
- **Position of Strength:** Minister Pistorius voiced hope for the German industry's prospects of getting the submarine contract. He expressed faith in TKMS and its future by saying that their position is pretty good.
- **Investment in Defence Corridors:** Defence Minister Rajnath Singh requested German investments during the negotiations in the defence corridors of Tamil Nadu and Uttar Pradesh. This reflects India's desire to draw in outside capital to expand its defence manufacturing capabilities.
- **First Visit since 2015:** The fact that this was the first visit by a German defence minister to India since 2015 underscores the significance of the talks and the possibilities for bolstering bilateral defence cooperation between the two nations.

Iran unveils new 'hypersonic missile'

Context:

As tensions over its nuclear programme with the United States remain high, Iran said on Tuesday that it has developed a hypersonic missile that could fly at 15 times the speed of sound, adding a new weapon to its arsenal.

Fattah Hypersonic Missile



- **Iran's Islamic Revolutionary Guard Corps (IRGC)** developed the **Fattah hypersonic long-range ballistic missile**.
- The Iranian Leader of the Islamic Revolution chose the name "**Fattah**," which in Arabic means "**victory**."
- Fattah is a **two-stage, precision-guided, solid-fuelled missile** with a **1400 km range**.
- Its maximum speed is between **Mach 13 and Mach 15**.
- The missile has a **moveable nozzle** that allows it to travel in all directions as well as a **spherical engine that burns solid fuel**.
- Even at supersonic speeds, Fattah may manoeuvre in and out of the environment, making it challenging to catch.

- Iran believes that it can **outmanoeuvre any missile defence system**, including the Iron Dome, due to its excellent manoeuvrability and speed.
- It can also hit **anti-ballistic missile defence systems**.
- Fattah has **AI capabilities**, according to the IRGC Chief.
- The missile, which represents a significant advancement in Iranian missile technology, was unveiled on November 10, 2022.
- A system that could intercept the Fattah missile would take decades to create, according to Brigadier General Amir Ali Hajizadeh, the commander of the IRGC-ASF.

Hypersonic Missiles

- Projectiles that can travel at least five times the speed of sound, or **Mach 5, are considered hypersonic missiles**. That translates to 6,174km (3,836 miles) per hour or 1.7km (1.05 miles) every second.
- These speeds are previously **attained by several ballistic missiles**, but this new class of weapon stands apart from the competition because it can **follow a less predictable path to its target after re-entering the atmosphere**.
- Due to this, it is much more challenging to be picked up by **radar systems and destroyed by defence shields**.
- More nations are attempting to develop hypersonic weapons in the hopes that they will provide them with a military advantage, but the obstacles are still great.
- One reason is that friction from the upper atmosphere generates extraordinarily high temperatures, and the missile's rapid speed creates superheated particles that surround it and interfere with radio communications.
- Only Moscow is believed to have conducted a combat test of any of the hypersonic missiles that **China and Russia have so far showcased**. Although it lags slightly behind its two rivals, the **United States** has also tested hypersonic missiles.

Chandrayaan-3 is to be launched in mid-July

Context:

S. Somnath, the head of the Indian Space Research Organisation (ISRO), announced on Thursday that the organisation intended to launch the Chandrayaan-3 moon mission in the middle of July.

Points to ponder:

- A follow-up mission to Chandrayaan-2, Chandrayaan-3 is intended to show that it is possible to safely land and rove on the lunar surface.
- A Lander module (LM), Propulsion module (PM), and Rover make up the mission. It will be launched from SDSC SHAR, Sriharikota, by the GSLV-Mk3 (Geosynchronous Satellite Launch Vehicle Mark 3).
- While the PM delivers the LM to an orbit around the moon that is 100 km in diameter and then separates from it, the LM and Rover have scientific payloads that will conduct experiments there.



- **The mission objectives of Chandrayaan-3 are as follows:**
 - To demonstrate a safe and soft landing on the lunar surface.
 - To demonstrate the roving capabilities of the Rover on the Moon.
 - To conduct in-situ scientific experiments on the lunar surface.
- **The Lander payloads include:**
 - Chandra's Surface Thermophysical Experiment (ChaSTE): Measures thermal conductivity and temperature on the lunar surface.
 - Instrument for Lunar Seismic Activity (ILSA): Measures seismicity around the landing site.
 - Langmuir Probe (LP): Estimates plasma density and its variations.
 - Laser Retroreflector Array: Accommodated from NASA for lunar laser ranging studies.

- **The Rover payloads include:**
 - Alpha Particle X-ray Spectrometer (APXS): Derives the elemental composition in the vicinity of the landing site.
 - Laser-Induced Breakdown Spectroscopy (LIBS): Analyses the chemical composition of the lunar surface.
 - From the launch vehicle injection through the final lunar orbit, the PM transports the LM. The Spectro-polarimetry of Habitable Planet Earth (SHAPE) payload, which investigates the spectral and polarimetric measurements of Earth from the lunar orbit, is also a part of it.

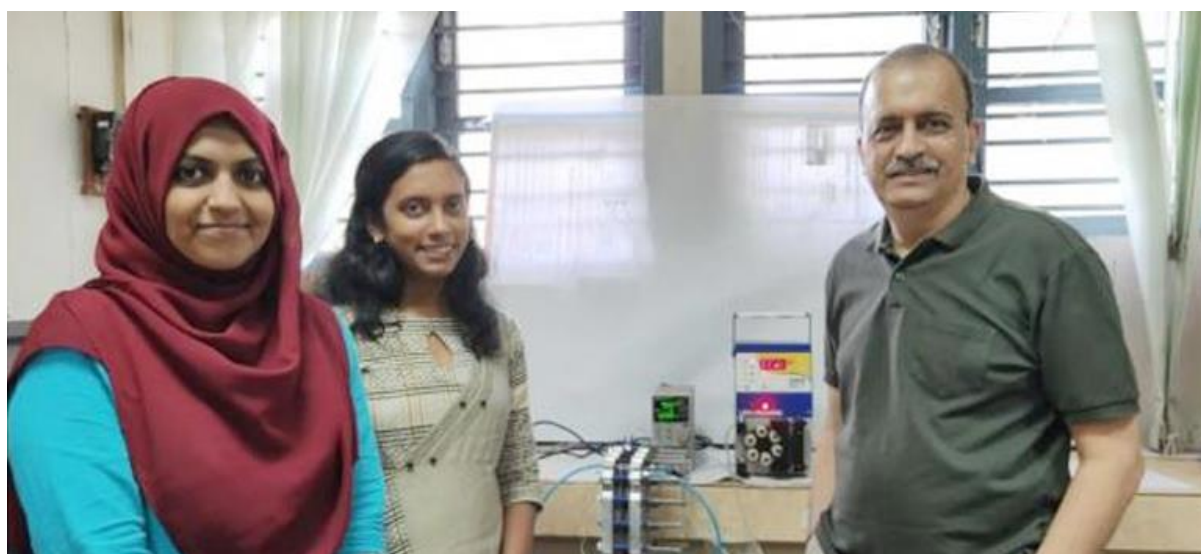
- **The LM incorporates advanced technologies for safe landing, including:**
 - **Altimeters:** Laser and RF-based altimeters for measuring altitude.
 - **Velocimeters:** Laser Doppler Velocimeter and Lander Horizontal Velocity Camera for measuring velocity.
 - **Inertial Measurement:** Laser Gyro-based Inertial referencing and Accelerometer package for precise measurement.
 - **Propulsion System:** Throttleable liquid engines (800N), attitude thrusters (58N), and Engine Control Electronics.
 - **Navigation, Guidance & Control (NGC):** Powered Descent Trajectory design and associated software elements.
 - **Hazard Detection and Avoidance:** Lander Hazard Detection & Avoidance Camera and Processing Algorithm.
 - Numerous experiments on the Lander, including the Integrated Cold Test, Integrated Hot Test, and Lander Leg Mechanism Performance Test on a Lunar Simulant Test Bed, have been designed and executed to demonstrate the advanced technology.

IIT-M Generates Hydrogen From Seawater Using Solar Energy

Context:

IIT-Madras physics department researchers have created key elements for a highly efficient, economically viable method of **electrolyzing saltwater** to produce **hydrogen**. The findings were released in the ACS Applied Energy Materials journal.

Points to Ponder:



- The **traditional alkaline water electrolyser method** uses **fresh water for electrolysis**, consumes a **lot of energy**, and **necessitates an expensive oxide-polymer separator**.
- The **IIT-Madras team** created an **electrolyser** that is more **environmentally friendly** and **utilises less freshwater** by using **alkaline salt water** as the **electrolyte** rather than **pure or fresh water**.
- To **prevent corrosion**, which is a frequent problem when using seawater, they employed a **carbon-based support material** for the electrodes **instead of metals**.
- To increase the production of **both hydrogen and oxygen** even in the **presence of impurities and chemical deposition on the electrodes**, the researchers designed and created transition metal-based catalysts that can catalyse both the oxygen and hydrogen evolution events.
- When **saltwater is used for electrolysis**, **hypochlorite production** at the **anode** can result in **corrosion** of the electrode support material and a **decrease in the amount of oxygen generated**. This problem is addressed by the team's catalysts, which are more selective towards the oxygen evolution process than hypochlorite production.
- The group created a **cellulose-based separator** that **permits hydroxide ions** to move from the **cathode to the anode** but **inhibits hydrogen and oxygen from crossing** across. This separator is reasonably priced and does not degrade in seawater.

- Under one sun irradiation at 26 degrees Celsius, the researchers optimised several parameters to obtain a seawater splitting voltage of 1.73 V at 10 mA/sq.cm, or about 12% solar-to-fuel conversion efficiency.
- They showed how to directly use photovoltaic power for saltwater electrolysis, producing 250 ml of hydrogen per hour in a smaller electrolyser (16 sq cm in size) and about a litre per hour in a bigger electrolyser (391 sq cm in size) at an applied voltage of 2 V.
- Additionally, the team created a stack of three cells with a production rate of hydrogen of about four litres per hour at an applied voltage of two volts per cell.
- These developments provide a highly effective, affordable, and environmentally friendly way to produce green hydrogen from seawater electrolysis, which could help develop renewable energy sources and lessen dependency on fossil fuels.

Army Air Defence widens wings

Context:

- The current evolution of the Army Air Defence (AAD) is influenced by the **Indian Army's reorientation** from the western boundaries to the northern borders in the wake of the **2020 standoff with China**, as well as lessons learned from the ongoing war in Ukraine.
- **The Akashteer Project**
- The **Automated Air Defence Control & Reporting System**, or "**Project Akashteer**," will give the **Indian Army's Air Defence** units a native, cutting-edge capacity that will allow them to successfully function in concert. **Akashteer** would make it possible to **monitor low-level airspace** above **Indian Army battle zones** and **efficiently manage Ground Based Air Defence Weapon Systems**.

Sarang Systems

- **Defence Electronics Research Laboratory** in **Hyderabad** created the **Sarang**, an **upgraded Electronic Support Measure system** for **Indian Navy helicopters**, as part of the **Samudrika programme**. Over three years, the **programme will create over two lakh man-days of work**.
- Both initiatives would promote involvement from **Indian Electronics and related sectors**, particularly **MSMEs that serve as BEL's subcontractors**.



Points to Ponder:

- Following the **2020 standoff with China**, the **Indian Army** has changed its emphasis from the western borders to the northern frontiers, which has caused the **Army Air Defence (AAD) to change its focus**.
- Lessons from the **continuing conflict in Ukraine** have also informed how the **AAD has changed**.
- To create a thorough picture of air defence for monitoring, tracking, and engaging air defence assets, **Project Akashteer**, a networking and automation programme akin to the **Indian Air Force's Integrated Air Command and Control System network**, is now being developed.
- The **Akashteer project** intends to **connect all AAD radars and command centres, eradicating overlaps or duplications, and integrating all weaponry**. It will also make it possible to **communicate with the network of the Indian Air Force**.
- The **requirements for air defence** on the **northern frontiers** differ from those on the **western front**. There is a need for **mobile weapon systems** and **lightweight radars** that can be **deployed in difficult terrain** and **meet infantry needs**.
- Lessons learned during the **conflict in Ukraine** have brought to light new threats to air defence, such as **swarm drones, loitering munitions, unmanned aerial vehicles (UAVs), and cruise missiles**.
- To properly combat these threats, the **Indian Army** is purchasing **MANPADS** with **laser beam-riding** and **night vision capabilities**.
- **Radar modules** based on **gallium nitride** are being examined because they would be **lighter**, which is **essential for deployment** in mountainous areas.
- The **Army** is concentrating on countermeasures against **loitering munitions**, such as active **electronically scanned array radars, high-rate gun systems, enhanced optic sights, and fragmented ammo**.
- A deal with Bharat Dynamics Limited for two regiments of enhanced **Akash surface-to-air missile (SAM)** systems designed for mountain warfare was signed in March 2023, **totalling around Rs. 8,160 crores**.
- Given that the **Akash SAM systems** are already in production and domestic capability has been built, delivery and induction of the systems are anticipated to occur within the next few years.

- The war in Ukraine has resulted in a global shortage of parts and equipment for air defence systems, which could potentially slow down the rate of introductions. Radar chip shortages, which are primarily imported, could cause delays in production and delivery.

Navy showcases twin-carrier operations

Context:

Indian Navy showcases **multi-carrier operations**, including **INS Vikrant**, and **INS Vikramaditya**, with over 35 aircraft in the Arabian Sea, marking a milestone in maritime security and power projection in the Indian Ocean.

INS Vikrant

- The Indian Navy's **first indigenous aircraft carrier** is called INS Vikrant.
- The **original INS Vikrant**, which served the Indian Navy from **1961 to 1997**, is the inspiration for the current INS Vikrant.
- In 2009, work on the new INS Vikrant got underway.
- **Cochin Shipyard Limited in Kochi**, Kerala, designed and constructed it.
- The carrier is around 262 metres long with a displacement of about 40,000 tonnes.
- The top speed is 28 knots.
- A variety of aircraft, including **fighter planes, helicopters, and support aircraft**, can be flown by INS Vikrant.
- For **short take-off but arrested recovery (STOBAR) operations**, it has a ski-jump take-off ramp.
- For take-off and landing, the carrier is outfitted with arrestor wires and aircraft launch mechanisms.
- Fighter planes like the **MiG-29K/KUB** and helicopters like the **Kamov Ka-31 and Ka-28 are among the planned aircraft for INS Vikrant**.
- It has close-range defence weapons systems.

INS Vikramaditya

- The Indian Navy's flagship ship is an aircraft carrier named INS Vikramaditya.
- For the Soviet Navy, it was initially constructed as the Admiral Gorshkov.
- In 2013, India bought the ship and commissioned it into the Indian Navy.
- It bears the name of the mythical Indian ruler Vikramaditya.
- The **approximate displacement for the INS Vikramaditya is 45,000 tonnes**.
- It measures about 284 metres in length.
- The ship is propelled by a mixture of gas turbines and diesel engines.
- It has a **top speed of more than 30 knots**.
- A spacious flight deck and a ski-jump ramp are both on the INS Vikramaditya.

- **Arresting gear cables are installed for recovering aircraft during landing.**
- Up to 30 aircraft, including several **helicopters and MiG-29K fighters**, can be carried by the ship.
- Multi-role fighters, helicopters for airborne early warning, and helicopters for anti-submarine warfare are all part of its aircraft complement.
- The INS Vikramaditya improves the Indian Navy's capacity for maritime security and force projection.
- It stands for India's expanding naval influence and presence in the Indian Ocean.



Points to Ponder:

- **Multi-carrier Operations:** In the Arabian Sea, the Indian Navy demonstrated its multi-carrier operations, which included the coordinated deployment of two aircraft carriers, INS Vikramaditya and INS Vikrant, as well as a variety of ships, submarines, and aircraft.
- **Technology:** The drill highlighted India's maritime technology prowess by showcasing the flawless integration of the two aircraft carriers and the varied fleet. This demonstrates India's marine operations capability and its dedication to maritime security.
- **Naval prowess:** The multi-carrier demonstration highlighted India's naval prowess and its efforts to increase maritime security and project strength in the Indian Ocean and beyond. It demonstrated the Indian Navy's dedication to defending national interests, upholding regional stability, and encouraging collaborative relationships in the marine sector.
- **INS Vikramaditya:** The Russian-built aircraft carrier INS Vikramaditya, with a displacement of 44,500 tonnes, was a key player in the exercise. It sailed out of the dockyard after a protracted overhaul, demonstrating its readiness for operational deployment.
- **INS Vikrant:** In September of the previous year, the Indian Navy commissioned INS Vikrant, a native aircraft carrier. With a 42,800-ton displacement, it contributes

significantly to the multi-carrier operations. By the end of the current year, INS Vikrant would be completely operational, according to the Navy Chief.

- **Floating Sovereigns:** The INS Vikramaditya and INS Vikrant are both referred to as "floating sovereign airfields." They serve as launch pads for a range of aircraft, including MH-60R, Kamov, Sea King, Chetak, and Dhruv helicopters, as well as MiG-29K fighter fighters.
- **Mission Flexibility and Response:** These transportable bases provide a quick reaction to new threats and boost mission flexibility. The aircraft carriers' mobility allows for long-distance air operations and the protection of national interests around the world.
- **Native Aircraft Carrier (IAC)-2:** According to the Navy Chief, preparations are being made to approach the government about building a second indigenous aircraft carrier, known as IAC-2, with improvements. This upcoming carrier, which will probably replace the INS Vikramaditya, will help to further improve India's naval prowess.
- **Periodic Maintenances:** INS Vikrant will go through periodic maintenance during the warranty period to get it ready for full operational readiness. This maintenance will be carried out by the product's maker, Cochin Shipyard Limited.

What does the alleged CoWIN data leak reveal?

Context :

A bot on the messaging app Telegram is reportedly returning the personal information of Indian individuals who enrolled with the COVID-19 vaccine intelligence network (CoWIN) portal for vaccination purposes, according to claims that surfaced on June 12. Upon entering phone numbers, the bot poured out personal information such as name, Aadhaar, and passport numbers.

Indian Computer Emergency Response Team

Background:

- The Indian government's Ministry of Electronics and Information Technology houses the CERT-IN (Indian Computer Emergency Response Team) office.
- It was founded in 2004 under the Ministry of Communications and Information Technology and Section (70B) of the Information Technology Act, 2000.
- The National Critical Information Infrastructure Protection Centre (NCIIPC) within the National Technical Research Organisation (NTRO) and the National Disaster Management Authority (NDMA) under the Ministry of Home Affairs are two organisations with whom CERT-IN shares overlapping tasks.

Functions:



- **Nodal Agency:** CERT-IN is the nodal organisation for dealing with phishing and other cyber security concerns in India.
- **Security Directives:** To improve their security and lessen cyber risks, essential departments and organisations are issued security directives and advisories by CERT-IN.
- **Coordination:** To coordinate and address the country's cyber security and threats, CERT-IN collaborates with the Office of National Cyber Security Coordinator, the National Security Council, and the National Information Board.
- **Collaboration:** To improve cyber security, CERT-IN works with other national and international organisations. For instance, it collaborated with Singapore's Cyber Security Agency to stage the exercise "Synergy," which intended to improve global cooperation and resilience against ransomware assaults.
- **Reporting and Analysis:** To acquire insights into new trends, vulnerabilities, and attack patterns, CERT-IN gathers and analyses data on cyber security incidents. It is essential for comprehending India's cyber threat landscape.
- **Incident Report:** In the event of a cyber security incident, CERT-IN offers a coordinated response that includes incident handling, analysis, and recovery support. It helps businesses lessen the effects of cyberattacks.
- **Capacity building:** To improve the cyber security expertise and understanding of people and organisations all over India, CERT-IN runs training courses, workshops, and awareness campaigns.
- **Research and development:** To investigate new technologies, tools, and methods to counter increasing cyber threats, CERT-IN engages in research and development initiatives.
- **International Collaboration:** To exchange knowledge, best practices, and skills in the area of cyber security, CERT-IN actively takes part in international projects and collaborations.

Points to Ponder:

The CoWIN portal keeps tabs on several COVID-19 vaccine-related developments in India:

- **Administration of vaccines:**
 - Keeps track of vaccine usage and waste at the federal, state, and local levels.

- keeps a stock of vaccination vials to assure a sufficient supply.
- **Citizen Registration:**
 - Citizens may register for the COVID-19 immunisation through this system.
 - need certain personal information like name, age, and gender, as well as the numbers from identification cards like Aadhaar and passports.
- **Appointment Scheduling:**
 - Based on eligibility and the availability of vaccine slots at various health centres, appointment scheduling assists residents in scheduling their vaccination appointments.
- **Vaccine Certificates:**
 - Digital certificates are issued as proof of immunisation for various diseases.
 - used for things like accessing particular facilities and travelling.
- **Data Exchange:**
 - Combines data from many sources, such as health clinics, vaccine inventories, and vaccination certificates.
 - To reduce redundancy, each data stream operates independently but exchanges data.
- **Regarding the data breach incident:**
 - The Indian Computer Emergency Response Team (CERT-In) evaluated the security architecture of the data breach incident; however, they were unable to locate any proof of a direct breach.
 - Investigations are ongoing into claims that a Telegram bot leaked user information.
 - The latest breach and other data leak cases underscore India's persistent data protection issues.
 - Despite acknowledging the essential nature of the right to privacy, India has not yet created a thorough personal data protection framework.
 - In these situations, establishing a strong data protection framework helps address accountability and secure personal data.

Stockpile count

Context:

In its annual study released on Monday, the **Stockholm International Peace Research Institute (SIPRI)** noted that **China upgraded its nuclear arsenal from 350 warheads in January 2022 to 410 warheads in January 2023.**

Stockholm International Peace Research Institute

- **Establishment:** SIPRI was founded in 1966 and has its headquarters in Stockholm, Sweden. It was established to conduct research and disseminate knowledge on topics about security, disarmament, and peace.
- **Independence:** SIPRI is a stand-alone research organisation. It can retain objectivity in its research and analysis because it is not connected to any political or governmental organisation.
- **Research Focus:** The main areas of research interest for SIPRI include disarmament, arms control, peacebuilding, and conflict resolution. It carries out substantial studies on these subjects and seeks to offer policymakers, academics, and the general public evidence-based analyses.
- **Publications:** SIPRI creates a variety of publications, including the SIPRI Yearbook, which is its flagship. The Yearbook provides a yearly summary of changes in international security, initiatives at arms control, military budget, and arms transfers. It is widely regarded as a reliable source of knowledge on these topics.
- **Information gathering:** SIPRI compiles and keeps up huge databases on military spending, arms transfers, and nuclear weapons. By researchers, decision-makers, and journalists alike, its data is highly valued and frequently cited. **Global Perspective:** SIPRI's research has an international focus and addresses both global and local security challenges. It strives to improve international communication and cooperation while presenting a thorough grasp of security concerns.
- **Collaborations:** To advance peace and security, SIPRI works with governments, international organisations, and civil society organisations. It actively participates in policy discussions and attends conferences and workshops held abroad.
- **Impact:** The research and analysis conducted by SIPRI have had a substantial influence on policy discussions and decision-making procedures about disarmament, arms control, and peacebuilding. Its work is respected for its objectivity and methodical use of evidence.
- **Education and Outreach:** By putting on seminars, hosting training sessions, and publishing research findings, SIPRI also helps with education and outreach initiatives. It aims to increase understanding and awareness of peace and security concerns among different stakeholders.
- **Global Reputation:** SIPRI is highly regarded as a world expert in the study of peace. It has gained respect and power in academic circles, groups that make policy, and international organisations thanks to its knowledge and contributions.



Intercontinental ballistic missile

- A long-range missile called an **intercontinental ballistic missile (ICBM)** is made for transporting **nuclear or conventional warheads** over **extremely long distances**. These missiles can reach targets on various continents and can travel great distances—typically thousands of km.
- Due to their capacity to cause serious harm to an adversary's territory, **ICBMs** are one of the **main elements of a country's strategic nuclear deterrent**.
- **Range:** ICBMs may travel over thousands of kilometres to their intended targets, allowing them to traverse continents or seas. They are made to be launched from one nation and hit a target in a different nation.
- **Speed:** ICBMs can travel at incredible speeds, frequently exceeding Mach 20 (20 times the speed of sound), because of their potent rocket engines. They can elude opposing defences and get to their targets more rapidly thanks to their tremendous velocity.
- **Payload:** ICBM payloads can include nuclear, conventional, or even multiple independently targetable re-entry vehicles (MIRVs) warheads. ICBM nuclear warheads have the power to wreak havoc and broad destruction.
- **Guidance Systems:** To correctly travel and hit their intended targets, ICBMs have highly developed guidance systems. Inertial guidance, star navigation, and satellite-based systems are some examples of these guiding mechanisms.
- **Launch Platforms:** ICBMs are launched from submarines, transportable platforms, or silos that are based on the ground. Mobile platforms and submarines offer enhanced survivability and flexibility, while ground-based silos give a robust and secure launch platform.
- **Strategic Deterrence:** One of the main uses of ICBMs is to act as a deterrent against potential enemies. Enemies may be deterred from attacking owing to the threat of huge reprisal if we have the power to launch deadly nuclear strikes from far-off areas.

India to buy 31 MQ-9 Reaper UAVs

Context :

Defence officials revealed that the Defence Acquisition Council on Thursday approved the purchase of 31 armed MQ-9 Reaper Unmanned Aerial Vehicles (UAVs) from General Atomics in advance of Prime Minister Narendra Modi's trip to the United States. The agreement is currently pending final clearance from the Cabinet Committee on Security and is anticipated to be made public during the visitation the following week.

MQ-9 Reaper Unmanned Aerial Vehicles (UAVs)



- Unmanned aerial vehicle (UAV) General Atomics Aeronautical Systems developed the MQ-9 Reaper, often referred to as Predator B, principally for the United States Air Force (USAF).
- Its capabilities include hunter-killer and long-endurance, high-altitude surveillance.
- Compared to the MQ-1

Predator, the MQ-9 Reaper is larger, heavier, and more powerful.

- The same ground controls as the MQ-1 Predator can be used to control it.
- The turboprop engine on the Reaper has 950 shaft horsepower, which is a significant increase over the piston engine on the Predator.
- Due to its enhanced power, the Reaper can cruise at a speed that is almost three times that of the MQ-1 Predator while towing a payload that is 15 times bigger.
- Aircrew in the Ground Control Station (GCS) keep an eye on the aircraft and manage its operations, including the use of weapons.
- The United States Air Force has utilised the MQ-9 Reaper in several capacities, including intelligence, surveillance, reconnaissance, and a real hunter-killer role.
- When the New York Air National Guard 174th Attack Wing fully adopted the use of unmanned combat aerial vehicles (UCAVs) in 2008, it became the first fighter unit to go from piloted planes to MQ-9A Reapers.
- The USAF operated more than 300 MQ-9 Reapers as of May 2021, and the FY2021 Congressional budget authorised the purchase of 16 more units.
- All new MQ-9 aircraft are anticipated to feature these equipment enhancements, which have been put onto some MQ-9 aircraft to boost performance in high-stress combat scenarios.
- The MQ-9 fleet's anticipated end of service life is 2035.
- Other organisations, like as the United States Customs and Border Protection and the militaries of numerous other nations, also employ the MQ-9 Reaper.
- According to estimates, an MQ-9 will cost roughly \$30 million in 2021 USD per unit.

Points to Ponder:

➤ **Approval and procurement:**

- The Defence Acquisition Council of India has given its approval for the purchase of 31 MQ-9 Reaper UAVs from General Atomics.
- Prime Minister Narendra Modi is likely to announce his visit to the United States. The agreement is awaiting final approval from the Cabinet Committee on Security.

➤ **Cost and Efficiency:**

- Over \$3 billion is expected to be spent on the deal's maintenance, overhaul, and repair costs combined.
- The purchase will be carried out via the U.S. government's Foreign Military Sales mechanism.

➤ **Allocation and Needs:**

- Of the 31 UAVs, 15 will be given to the Navy, while eight each will be given to the Army and Air Force.
- The Navy has the greatest need for these platforms since they will greatly improve its ability to conduct maritime surveillance over the Indian Ocean region.

➤ **Advantages for the Navy:**

- The Navy will be able to use fewer P-8I maritime patrol aircraft by using MQ-9 Reaper UAVs.
- The Navy's maritime surveillance capabilities will be strengthened, and it will be possible to effectively cover the large operational area in the Indian Ocean Region.

➤ **Lease and Flight Hours:**

- The Navy has renewed the leases on two MQ-9A aircraft that were first leased in 2020.
- Since their first flight in November 2020, the rented UAVs have logged 10,000 flight hours and have operated in an area larger than 14 million square miles.

➤ **Collaboration with HAL:**

- General Atomics and Hindustan Aeronautics Ltd. (HAL) announced their partnership at Aero India in February.
- The MQ-9's turbo-propeller engines would receive support from HAL's engine division for the Indian market.
- For upcoming high-altitude, long-endurance UAV projects, the businesses want to build a comprehensive engine maintenance, repair, and overhaul programme.

Monkeypox outbreaks in the Asia-Pacific region

Context :

The World Health Organisation (WHO) ended the Mpox global health emergency more than a month ago. There has been a surge in reported cases from several nations, particularly in Southeast Asia and the Western Pacific Region, even though the total number of cases worldwide is still declining.

Monkeypox

- **Monkeypox** is a **viral disease** brought on by the **monkeypox virus**, a kind of **Orthopoxvirus** genus. There are two **distinct clades: clade I and clade II**.
- A **skin rash** or **mucosal lesions** that might **last 2-4 weeks** are typical symptoms of Mpox, along with **fever, headache, muscle aches, back discomfort, low energy, and enlarged lymph nodes**.
- **Humans can contract the Mpox virus** by coming into **personal contact with a diseased person, contaminated objects, or infected animals**.
- By using **PCR testing on skin lesion samples, Mpox is confirmed in the lab**.
- Supportive care is used to treat measles. In some situations, smallpox vaccines and treatments that have been licenced for use in various nations can be utilised to treat Mpox.
- An **international Mpox outbreak in 2022–2023** was brought on by the **clade IIb strain**.
- By avoiding direct contact with Mpox patients, Mpox can be prevented. For those who are vulnerable, vaccinations can help avoid infection.



Points to Ponder:

- Since January 2022, the **World Health Organisation (WHO)** has recorded approximately **87,000 cases of monkeypox**, including **146 fatalities**.
- While recorded cases have decreased globally generally in recent weeks, there has been an **uptick in several areas, particularly in Southeast Asia and the Western Pacific**.
- **Spain and the United Kingdom** have both **reported new cases in Europe**. However, thanks to vaccine initiatives and greater awareness, the significant outbreaks seen in 2022 have been brought under control.

- **Four cases of monkeypox** were recently **recorded in China**, causing worry about the disease's potential to spread across the nation. In Guangzhou, there were two cases documented and two in Beijing.
- Additionally, Sri Lanka reported two cases involving people who had previously visited Dubai. Monkeypox was discovered earlier this year in Thailand, Taiwan, Pakistan, and Japan, with several individuals having a history of travel to the Middle East. Reports from the Middle East, however, do not point to a rise in the number of cases.
- **Monkeypox's emergence into new areas** is alarming since it shows the **illness is spreading covertly and complicates containment efforts**.
- It has been difficult to identify and record cases in the Middle East because there hasn't been a matching increase in cases that are reported. This emphasises the demand for enhanced reporting systems and a deeper comprehension of the local circumstance.
- **Monkeypox cases have also increased throughout the African continent, especially in Cameroon, the Democratic Republic of the Congo, and Nigeria.**
- Given the rise in globalisation and mobility, an effective response to the monkeypox outbreak depends on international public health initiatives, collaboration, and resource sharing.
- Monkeypox **pathogen genomic surveillance enables contact tracing and evolution tracking**. However, the absence of genomic data from developing nations, notably Asia, makes it difficult to comprehend the disease's spread completely.
- Moving forward, it is **essential to maintain vigilance and be ready for new difficulties**. Monkeypox and other infectious diseases must be managed proactively by preventing infections and safeguarding vulnerable people.

Phonons: Are ‘sound particles’ quantum too?

Context :

Qubits are the fundamental informational building blocks of quantum computers. Using a novel type of beam-splitter, physicists have discovered that packets of vibrational energy (phonons) behave like packets of light energy. Technically, this makes them eligible to function as qubits as well.

Quantum Computers and Qubits:

- A novel sort of computer technology known as a quantum computer uses the concepts of quantum physics to carry out intricate calculations.
- Like the bits in classical computers, qubits are the fundamental building blocks of information in quantum computers.
- Particles (like electrons) or quantum systems designed to behave like particles can both be qubits.
- Qubits can exist in a superposition of states, such as "on" and "off," concurrently thanks to quantum characteristics.

Quantum Computing with Photons and LOQC:

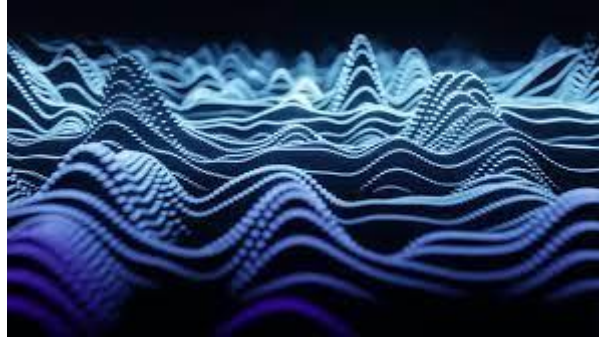
- Linear optical quantum computing (LOQC) is a type of quantum computing that uses photons as qubits.
- To process the information recorded on photons, LOQC uses optical apparatus such as mirrors, lenses, and splitters.
- Due to photons' dual behaviour as particles and waves, interference patterns and intricate calculations are possible.

Exploring Phonons as Qubits:

- Similar to how photons are packets of light energy, phonons are packets of vibrational energy.
- Phonons may be used as informational units in quantum computers, according to research.
- If quantum-mechanical processes can be used to regulate and alter phonons, they might be used as qubits.

Acoustic Beam-Splitter:

- An acoustic beam-splitter was created by the University of Chicago researchers to control phonons.
- The acoustic beam-splitter was a tiny gadget with 16 metal bars that resembled a comb.
- Superconducting qubits were positioned at either end of a lithium niobate channel in which the beam splitter was put.



Phonon Interactions:

- The experiments showed that phonons interacted with the acoustic beam-splitter similar to how photons interact with optical beam-splitters.
- When a phonon was emitted from one side of the channel, it was reflected 50% of the time and transmitted to the other side the other 50%.
- When phonons were emitted simultaneously from both sides, they ended up on the same side.

Validation of Quantum Behaviour:

- The researchers' tests confirmed that phonons exhibit quantum behaviour, consistent with the principles of quantum mechanics.
- This validation suggests that phonons can be utilized as qubits in a quantum computer.

Challenges and Future Prospects:

- Even while the study shows that employing phonons as qubits is possible, there is still a long way to go before it can be used in a working quantum computer.
- The study broadens the quantum computing toolkit, creating additional opportunities and directions for further study.
- As researchers build on these discoveries to create real-world applications of phonon-based quantum computing, more developments and research in this area are anticipated.

India's First mRNA Vaccine Against Omicron Approved

Context :

The **Drug Controller General of India (DCGI)** late on Monday authorised **GEMCOVAC-OM**, India's first locally developed mRNA vaccine for the new coronavirus Omicron strain.

Drugs Controller General of India (DCGI)

- The **Drugs Controller General of India (DCGI)** is the head of the department of the **Central Drugs Standard Control Organization** of the Government of India responsible for the approval of licences of specified categories of drugs such as **blood and blood products, IV fluids, vaccines, and sera** in India
- The **Ministry of Health & Family Welfare** is responsible for the **Indian Drugs Controller General**.
- The DCGI also establishes requirements for the production, marketing, import, and distribution of medicines in India.
- **Rajeev Raghuvanshi** was appointed as the **new Drug Controller General of India**

GEMCOVAC-OM

- The **omicron form (BA.1)** of the **SARS-CoV-2 spike protein** is used as an antigen in the mRNA-based vaccination known as **GEMCOVAC-OM**.
- Individuals 18 years of age and older who have received either **COVAXIN** or **COVISHIELDTM** as a **primary immunisation** are **eligible for the restricted use of GEMCOVAC-OM as a booster in emergencies**.
- COVID-19 may be avoided with GEMCOVAC -OM. The **vaccine is offered as a powder that has been lyophilized**.
- Both GEMCOVAC-19 (against COVID-19) and GEMCOVAC-OM were developed by the Pune-based Gennova Biopharmaceuticals Ltd. While GEMCOVAC-OM has



recently been granted, GEMCOVAC-19 was approved previously.

- According to reports, **GEMCOVAC-OM is stable between 2 and 8 degrees Celsius**, making it suitable for storage in regular refrigerators. It is easier to distribute and administer thanks to this functionality.

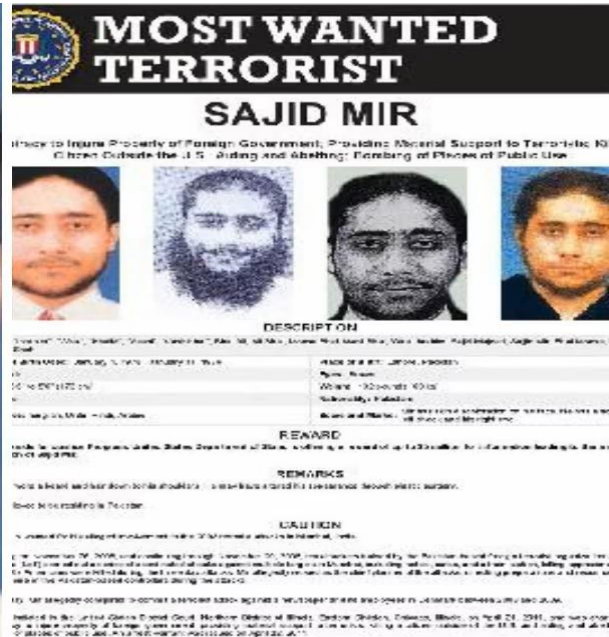
mRNA Vaccine

- **mRNA overview:** mRNA vaccinations introduce a tiny amount of messenger RNA (mRNA) into the body. The genetic code for creating a particular viral protein is found in this mRNA.
- **Cellular uptake:** After being given, the mRNA reaches the body's cells, especially the muscle cells close to the injection site.
- **Protein synthesis:** To create the viral protein, cells follow the instructions stored in the mRNA. Usually, this protein is a piece of the protein that makes up the target virus's outer membrane.
- **Protein Display:** The freshly created viral protein is exhibited on the cell surface as a protein.
- **Immune system recognition:** Because the viral protein on display is not typically found in the body, the immune system recognises it as alien.
- **Antibody Production:** The immune system responds by turning on specialised immune cells known as B cells. These B cells generate antibodies that are designed to attach to the viral protein in particular.
- **Antibody circulation:** When a virus is present, the antibodies are ready to neutralise it and circulate throughout the body.
- **Immune memory:** A subgroup of B cells known as memory B cells continue to be able to recognise the viral protein even after the viral protein has been removed.
- **Rapid response after exposure:** When a person who has received the vaccine is later exposed to the virus, memory B cells quickly identify the viral proteins on the virus's surface.
- **Antibody binding and neutralisation:** The virus is promptly bound by the preexisting antibodies, which stops it from infecting cells and producing dangerous sickness.
- **Activation of the immune system:** After the virus is neutralised, the immune system intensifies its reaction, including the activation of more immune cells such as T cells, to eradicate the pathogen.
- **Protection and averting serious sickness:** The antibodies produced by the vaccination aid in preventing the vaccinated person from contracting a severe illness or its complications by swiftly identifying and neutralising the virus.
- **Long-lasting immunity:** If a person is exposed to the virus again in the future, their immune system will still remember the viral protein, enabling a quick and effective response.

China Blocks UN Proposal To Blacklist Sajid Mir

Context

China on Tuesday prevented India and the United States from designating Lashkar-e-Taiba terrorist Sajid Mir as a global terrorist at the UN. Mir is headquartered in Pakistan. Mir is sought after for his involvement in the 26/11 terrorist strikes in Mumbai.



UNSC 1267 Committee

- **Establishment:** The UN Security Council Resolution 1267 was adopted in 1999, which led to the creation of the UNSC 1267 Committee. Concerns over the Taliban and Al-Qaeda's operations led to the resolution, which was intended to confront the threat posed by these groups.
- **Mandate:** The major responsibility of the committee is to monitor the application of the restrictions set by Resolution 1267. Sanctions against people and organisations connected to the Taliban and Al-Qaeda are among these measures. Asset freezes, travel restrictions and arms embargoes are all part of the sanctions.
- **Sanction List:** The "1267 List" or "Taliban/Al-Qaeda Sanctions List," which lists people and organisations subject to sanctions, is kept up to date by the committee. The details on the targeted people or organisations and the particular sanctions imposed on them are included on the list, which is frequently updated.
- **Composition:** All 15 United Nations Security Council members are represented on the committee. Every member state designates a delegate to the committee, who is frequently a diplomat or counterterrorism specialist.
- **Decision-making:** The committee makes decisions together with the support of all member states because it functions by consensus. This guarantees that the full Security Council will endorse the committee's decisions.
- **Review Procedure:** The committee examines requests for the addition of people or organisations to the sanctions list or for their removal. To decide whether a person or

entity should be delisted or subject to sanctions, it carefully assesses the available information and evidence.

- **Exemptions:** The committee also takes into account petitions for waivers of penalties or other pertinent issues. Exemptions may occasionally be granted for humanitarian causes or where communicating with a person or organisation on the prohibited list is necessary.
- **Evolving Mandate:** The committee's role has changed over time to include addressing new terrorist threats. It now includes additional people, entities, and groups connected to terrorism in addition to the Taliban and Al-Qaeda.
- **Cooperation:** To put the sanctions system into effect, the committee closely collaborates with member nations, international organisations, and other bodies. It promotes international coordination, information sharing, and cooperation to increase the efficacy of counterterrorism measures.
- **Impact on the World:** The sanctions imposed by the UNSC 1267 Committee can impede people's ability to engage in terrorism by limiting their access to resources, restricting their ability to move around, and freezing their assets.
- **Support for Counterterrorism:** The committee is essential in providing support for international counterterrorism initiatives by enacting targeted sanctions and fostering international cooperation. To make it more difficult for terrorist organisations to plan and carry out attacks, it seeks to interfere with their financial networks and operational capabilities.

What happened in the committee?

- Sajid Mir, a terrorist with ties to Pakistan, is wanted for his participation in the 2008 Mumbai terrorist strikes, which resulted in the deaths of over 160 people, including citizens from other countries.
- At the UN, Sajid Mir's designation as a global terrorist under the 1267 Al Qaeda Sanctions Committee of the UN Security Council was jointly requested by India and the US.
- Sajid Mir would have been subject to sanctions like asset freezes, travel restrictions, and arms embargoes as a result of the designation.
- The proposal to name Sajid Mir as a worldwide terrorist was stopped by China, a close ally of Pakistan. This is consistent with China's earlier vetoes of such lists for terrorists located in Pakistan.
- China's persistent obstruction of black listings of terrorists with ties to Pakistan has wider ramifications for global efforts to fight terrorism and hold people accountable for their involvement in terror activities.
- A major area of disagreement during the Financial Action Task Force (FATF) evaluation of Pakistan's progress on the action plan in late 2022 was the matter of China's actions in opposing the request to identify Sajid Mir as a global terrorist.

Financial Action Task Force (FATF)

- **Mandate:** The FATF oversees international efforts to combat money laundering, financing terrorism, and financing the development of new weapons. Its main objective is to establish and advance global norms and regulations to stop these illegal operations.

- **Standards Development:** The FATF carries out research and analysis to comprehend the procedures and strategies used for money laundering and financing terrorism. Using this information, it creates guidelines and recommendations, often known as the FATF Standards or the 40 Recommendations, to assist nations in strengthening their frameworks for combating money laundering and financing terrorism.
- **Global Implementation:** More than 200 nations and regions have made commitments to put the FATF Standards into practice. This dedication is a component of an organised international effort to combat terrorism, organised crime, and corruption. The FATF offers a thorough framework for nations to set up successful mechanisms to combat financial crimes.
- **Collaboration:** The FATF collaborates with various international organizations, including nine FATF Associate Member organizations, the International Monetary Fund (IMF), and the World Bank. These partnerships aim to enhance the effectiveness of global efforts in combating money laundering and terrorist financing.
- **Plenary Meetings:** The FATF Plenary, its decision-making body, meets three times a year. During these meetings, member countries and jurisdictions discuss emerging issues, exchange information and best practices, and make decisions on matters related to money laundering, terrorist financing, and the implementation of the FATF Standards.
- **Accountability:** If a country consistently fails to meet the FATF Standards, the FATF holds it accountable. The country may be designated as a Jurisdiction under Increased Monitoring or a High-Risk Jurisdiction. These designations are informally known as being on "grey" and "black" lists, respectively. Being on these lists can have significant implications for a country's reputation and its access to the international financial system.
- **Headquarters:** The FATF is based in Paris, France. It operates as an intergovernmental organization and serves as a hub for global cooperation in combating money laundering, terrorist financing, and the financing of weapons proliferation.

Lessons For Proposed Indian Submersible Dive From Titan

Context:

Scientists in India who are planning to conduct a similar dive in an indigenous vehicle later next year say that numerous backup safety measures for the crew are already in place, though there may be reviews of the safety systems used. With hope dwindling for those in the Titan submersible's chances of survival.

Why is Titan in the news?

- **The disappearance of Titan:** On June 18, 2023, the submersible named Titan, operated by OceanGate, vanished in international waters in the North Atlantic Ocean, approximately 400 nautical miles off the coast of Newfoundland, Canada. The submersible was part of a tourist expedition aimed at observing the wreck of the Titanic.
- **Communication loss:** Contact with the Titan was severed 1 hour and 45 minutes into its dive to the Titanic wreck site. Authorities were alerted when it failed to resurface at the scheduled time later that day, raising concerns about the safety and status of the submersible and its occupants.
- **Discovery of debris field:** After an extensive search effort lasting nearly 80 hours, a remotely operated underwater vehicle (ROV) located a debris field containing parts of the Titan. The debris field was found approximately 488 meters from the bow of the Titanic. This discovery provided evidence suggesting that the pressure vessel of the Titan had imploded shortly after its descent began, resulting in the instant death of all onboard.
- **Safety concerns and certification:** Before the incident, concerns had been raised about the safety of the Titan. Executives from OceanGate had reportedly chosen not to seek certification for the submersible, arguing that stringent safety protocols could impede innovation. This decision raised questions about the vessel's design, construction, and adherence to safety standards.
- **International search and rescue operation:** The search and rescue operation following the disappearance of the Titan was led by the United States Coast Guard, United States Navy, and Canadian Coast Guard. It involved coordination among various entities, including the Royal Canadian Air Force and United States Air National Guard, a Royal Canadian Navy ship, commercial and research vessels, as well as remotely operated underwater vehicles (ROV)

Why Lessons Can India Learn?

- The Samudrayaan Mission aims to create a self-propelled manned submersible that can carry three people and a variety of research instruments to a depth of 6000 metres in the ocean. Its operational endurance is 12 hours, while its emergency endurance is 96 hours.

- The goal of the expedition is to deploy three people in the "MATSYA 6000" vehicle to a depth of 6000 metres to explore deep-sea resources like minerals.
- The National Institute of Ocean Technology (NIOT), Chennai, is designing and developing the "MATSYA 6000" vehicle for the Ministry of Earth Sciences.
- The Titan disaster can aid India in reassessing its safety protocols and will aid in assuring the crew's safety.
- Rescue operations in the deep water have incredibly low success rates.



Jet engine deal ensures 80% technology transfer to HAL

Context :

General Electric (GE) will transfer 80% of the technology for the American jet engine agreement to Hindustan Aeronautics Limited (HAL), which is an "almost done" arrangement. Critical technology will be incorporated. According to a Defence Ministry official, the first engine would be released three years after the contract is complete.

Jet Engine Deal

- **Overview of the Agreement:** GE and HAL have an ongoing agreement for the production of F414 jet engines for the LCA-MK2 in India. The agreement calls for a sizable technology transfer, with GE giving HAL access to 80% of the engine's technology.
- **Technology Transfer:** This transfer marks a considerable improvement over the 58% technology transfer percentage of the previous agreement from 2012. The transfer of technology encompasses several engine production-related topics, including welding, composite materials, laser drilling, fabrication of turbine blades, nozzle guiding vanes, black machining, forging, and casing machining.
- **Timeline:** Three years after the contract is signed, the first engine is anticipated to be released. The agreement intends to make it possible for the F414-INS6 engine to be completely manufactured in India, with only a small component being produced overseas.
- **Why is it important? :** Transfer of Technology Is Important The remarkable 80% technology transfer illustrates the extent of American trust that India inspires. It surpasses earlier agreements between the two countries for the transfer of technology, making it a noteworthy accomplishment.

- **Approval Process:** International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR) are the regulatory frameworks that must be approved by the U.S. Congress for the sale to go through. Through their strategic trade conversation, India and the US have made an effort to overcome regulatory concerns.
- **Cost and Quantity:** Although the ultimate price of the arrangement hasn't been decided, it's anticipated that it will be indexed to the 2012 agreement. According to that deal, the price for 99 engines now should be less than \$1 billion. There will probably be 120–130 LCA-MK2 planes constructed.
- **Enhanced Capabilities:** The LCA-MK2's capabilities will be greatly improved by the F414 engines. In comparison to the MK1 and MK1A models, the MK2 variant will be longer, have canards, and have a higher payload capacity.
- **Additional Co-Development:** Talks about co-developing a 110KN engine to power the Advanced Medium Combat Aircraft (AMCA)-MK2 are still ongoing. Although a final choice has not yet been made, GE is also regarded as a contender for this deal.



General Electric F414

- **Engine:** GE Aerospace (previously GE Aviation) is the designer and manufacturer of the F414 after-burning turbofan engine. This powerful engine, which belongs to the 22,000-pound (98 kN) thrust category, is appropriate for high-performance military aircraft.
- **Derivation:** The F414 engine is a derivative of the GE F404 turbofan engine. The F404 engine, which has been extensively employed in many different aircraft, including the F/A-18 Hornet, is the foundation for the F414 engine.
- **Purpose:** The Boeing F/A-18E/F Super Hornet, an updated and larger version of the F/A-18 Hornet, is the primary application for the F414 engine. The F414 was specially designed to satisfy the Super Hornet's demands for higher thrust and 7670 improved performance.
- **Improvements:** The F414 engine includes several improvements and upgrades over the F404 engine. These include an afterburner, a bigger fan and core, and increased durability. Increased thrust and better performance as a whole are the results of these advances.

- **Afterburner Capability:** The F414 engine's afterburner is a notable feature. A secondary burner known as an afterburner injects and ignites fuel after the engine's primary combustion chamber. When needed, it gives an extra surge of push, enabling high-speed operations and better manoeuvrability.

Impact on Indian Defence

- **Enhanced Performance:** A new engine can lead to improved performance in military aircraft. It can offer increased speed, range, fuel efficiency, and payload capacity, thereby enhancing the overall operational capabilities of the defence forces.
- **Modernization of Equipment:** Integrating a new engine into existing defence platforms can contribute to their modernization. Upgrading engines can extend the lifespan of ageing equipment, making them more reliable and capable of meeting current and future operational requirements.
- **Strategic Advantages:** The adoption of advanced engines can provide India with strategic advantages by enabling its defence forces to operate in a wider range of environments, including high-altitude regions, extreme weather conditions, and challenging terrains. This can enhance India's military reach and responsiveness.
- **Technological Independence:** Developing or acquiring advanced engines can reduce India's dependence on foreign countries for critical defence technologies. This shift toward indigenously developed engines can enhance self-sufficiency and promote indigenous defence manufacturing capabilities.
- **Research and Development:** The introduction of a new engine often involves significant research and development efforts. Such initiatives can foster innovation, drive technological advancements, and strengthen the country's scientific and engineering capabilities. Additionally, collaboration with foreign engine manufacturers can facilitate knowledge transfer and skill development.

MQ-9 Reaper And The Strengthening Of Armed Forces

Context :

The Defence Ministry expects to send the **Letter of Request (LoR)** to the United States by the first week of July as part of the procedure to finalise the agreement for the purchase of **31 MQ-9B-armed High Altitude Long Endurance (HALE) Unmanned Aerial Vehicles (UAV)**. This would start an acquisition process through the U.S. government's **Foreign Military Sales (FMS) programme**.

MQ-9 Reaper Unmanned Aerial Vehicles (UAVs)

- Unmanned aerial vehicle (UAV) **General Atomics Aeronautical Systems** developed the **MQ-9 Reaper**, often referred to as Predator B, principally for the United States Air Force (USAF).
- Its capabilities include **hunter-killer and long-endurance, high-altitude surveillance**.
- Compared to the MQ-1 Predator, the MQ-9 Reaper is larger, heavier, and more powerful.
- The same ground controls as the MQ-1 Predator can be used to control it.
- The **turboprop engine** on the **Reaper has 950 shaft horsepower**, which is a significant increase over the piston engine on the Predator.
- Due to its enhanced power, the Reaper can cruise at a speed that is almost three times that of the MQ-1 Predator while towing a payload that is 15 times bigger.
- Aircrew in the **Ground Control Station (GCS)** keep an eye on the aircraft and manage its operations, including the use of weapons.
- The United States Air Force has utilised the MQ-9 Reaper in several capacities, including **intelligence, surveillance, reconnaissance, and a real hunter-killer role**.
- When the New York Air National Guard 174th Attack Wing fully adopted the use of unmanned combat aerial vehicles (UCAVs) in 2008, it became the first fighter unit to go from piloted planes to MQ-9A Reapers.
- The USAF operated more than 300 MQ-9 Reapers as of May 2021, and the FY2021 Congressional budget authorised the purchase of 16 more units.
- All new MQ-9 aircraft are anticipated to feature these equipment enhancements, which have been put onto some MQ-9 aircraft to boost performance in high-stress combat scenarios.
- The MQ-9 fleet's anticipated end of service life is 2035.
- Other organisations, like as the United States Customs and Border Protection and the militaries of numerous other nations, also employ the MQ-9 Reaper.
- According to estimates, an MQ-9 will cost roughly \$30 million in 2021 USD per unit.



How does the Foreign Military Sales (FMS) programme work?

- The Defence Ministry of India is expected to issue a **Letter of Request (LoR)** to the U.S. government by the first week of July to initiate the acquisition process through the **Foreign Military Sales (FMS) program**.
- The **Defence Acquisition Council**, chaired by Defence Minister Rajnath Singh, has already granted acceptance of the necessity for the acquisition of 31 MQ-9Bs. Once the LoR is sent to the **U.S. Department of Defence**, a **Letter of Acceptance (LoA)** will be issued, followed by commercial negotiations. The potential sale will also require notification to the U.S. Congress, and the final approval will be sought from the Cabinet Committee on Security.
- The **Foreign Military Sales (FMS) programme** is a key component of U.S. foreign policy and a type of security aid permitted by the **Arms Export Control Act (AECA)**, as amended [22 U.S.C. 2751 et seq.].
- According to Section 3 of the AECA, the United States may sell defence goods and services to other nations and international organisations if the President explicitly determines that doing so will increase national security and advance world peace.
- Under FMS, a Letter of Offer and Acceptance (LOA), also known as a government-to-government agreement, is signed between the U.S. Government and a foreign country.

Economical Benefits for India

- **Indigenous material:** In the MQ-9B deal, India wants to enhance the amount of indigenous material and sourcing. The projected indigenous content is now in the range of 8% to 9%, but India wants to increase it to 15% to 20%. The manufacturer, General Atomics, is supportive of boosting indigenous content, subject to U.S. government approval. Discussions are ongoing.
- **Manufacturing in India:** As per the agreement, some MQ-9B parts would be produced in India. The prospect of producing electronics, sensors, and avionics domestically is also being discussed. In this regard, General Atomics is collaborating with several Indian businesses.
- **Assembly and Maintenance:** According to the joint statement released after negotiations between U.S. President Joe Biden and Indian Prime Minister Narendra Modi, the MQ-9Bs will be assembled in India. A comprehensive worldwide Maintenance, Repair, and Overhaul (MRO) facility will be built by General Atomics in

India to serve the nation's long-term objective of enhancing indigenous defence capabilities.

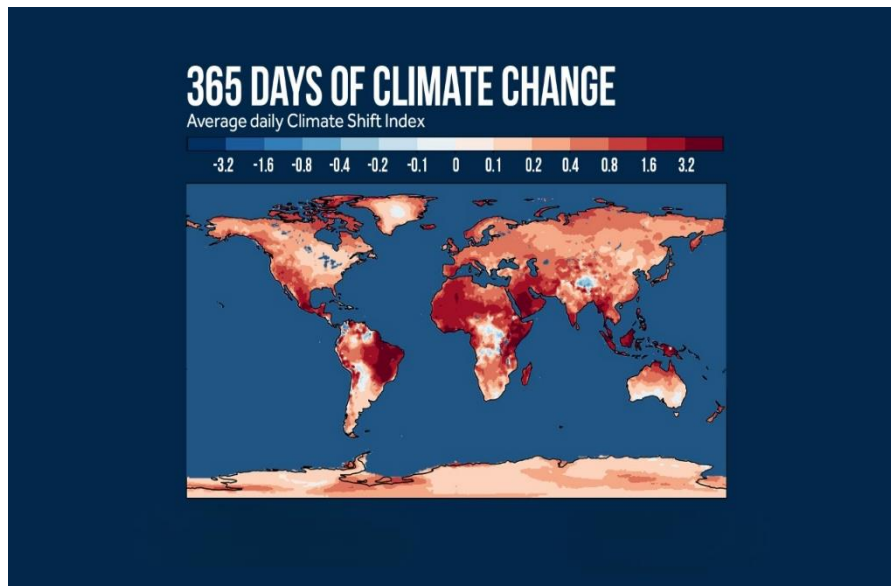
Defence Capabilities Of India

- The MQ-9B UAVs will considerably improve the **Indian Navy's intelligence, surveillance, and reconnaissance (ISR) capabilities** in the Indo-Pacific region, hence it is of particular interest to them. At a substantially cheaper cost per hour, the MQ-9B provides around **80% of the functionality of a sizable human-flown maritime patrol aircraft**.
- With the current stalemate with China in Ladakh and the escalating tensions with Pakistan, India needs MQ-9B armed drones to improve its **observation and strike capabilities across its land and marine frontiers**.
- To defend its crucial sea routes of communication and trade and to fight the growing **presence of Chinese submarines and warships in the Indian Ocean Region, India also needs MQ-9B armed drones**.
- To help its **counterterrorism and counterinsurgency operations** in Kashmir and other areas, India also requires MQ-9B armed drones.

Climate Shift Index

Context:

- When the impact of climate change on a specific event is reported to the general public in a context-agnostic manner, the caveats and shortcomings that the experts who developed methods to quickly compute the extent to which a weather event can be attributed to climate change have set out tend to get lost.
- The last few decades have seen a significant worsening of heatwaves throughout various areas of India, despite the country's overall appearance of cooling, according to a historical temperature study.
- The consequences of climate change locally are always augmented or diminished by natural climate changes. For instance, during the same summer, Chennai may experience its coolest day ever in June while South India experiences the hottest summer.



Heatwave in UP

- **Intensity:** Heat waves in UP may be difficult to endure, with temperatures often exceeding 40 degrees Celsius, 104 degrees Fahrenheit and occasionally up to 45 degrees Celsius, 113 degrees Fahrenheit or more. The heat wave may become even more oppressive due to the combination of high temperatures and high humidity.
- **Duration:** Depending on the weather, heatwaves in UP can last anywhere from a few days to a few weeks. The people may experience pain and health hazards as the sweltering temperatures continue.
- **Impact:** Heatwaves can cause dehydration, heat exhaustion, and heatstroke, among other health dangers to people. The elderly, small children and people with pre-existing medical disorders are particularly sensitive to these dangers, as are other vulnerable groups of the population. Heat waves also have an impact on agriculture, causing the loss of livestock and crop damage.
- **Mitigation measures:** Government agencies and municipal governments in UP take steps to lessen the effects of heat waves. These can be sending out heatwave alerts, recommending people to stay inside during busy times, encouraging people to drink

water, and setting up cooling centres or shelters in sensitive places. People must take safety precautions during heat waves, such as drinking plenty of water, avoiding direct sunlight, and dressing in airy, lightweight clothing.

- **Climate Change:** It is thought that climate change has an impact on the frequency and severity of heatwaves in UP and other regions of India. Heatwaves and other extreme weather occurrences are a result of rising global temperatures. To address this issue and lower the hazards associated with heatwaves, climate change mitigation and adaptation methods are crucial.

Climate Shift Index

- **Climate Shift Index™:** The Climate Shift Index™ is a measure that quantifies the influence of climate change on daily temperatures.
- **Temperature Influence:** The Index reveals how much climate change affects the temperature on a particular day.
- **Scale:** The Index is scaled from -5 to +5, covering a range of values that indicate the impact of climate change on temperature patterns.
- **Positive Levels:** Positive values on the Index indicate temperatures that are becoming more likely due to climate change.
- **Negative Levels:** Negative values on the Index suggest conditions that are becoming less likely as a result of climate change.
- **Magnitude of Influence:** The magnitude of the Index value corresponds to the strength of the influence of climate change on temperatures.
- **Frequency Multiplier:** For Index levels at 2 or above, the value represents a multiple of how frequently a particular temperature will occur due to climate change.
- **Example:** A Climate Shift Index™ of level 5 signifies that a specific temperature is occurring five times more frequently due to climate change. While not impossible in a world without climate change, it would be highly unlikely.
- **Likelihood vs. Impossibility:** The Index does not indicate impossibility for specific temperatures in a world without climate change but rather highlights the increasing probability of their occurrence with climate change.
- **Comparative Analysis:** By comparing the Climate Shift Index™ values for different periods, regions, or temperature ranges, one can assess how climate change is impacting temperature patterns over time.
- **Quantitative Measure:** The Index provides a quantitative measure to evaluate the influence of climate change on temperatures, allowing for better understanding and communication of climate change impacts.

Ways to move forward

- **Enhance public awareness and education:** Educate the public about the risks associated with heatwaves, such as heat-related illnesses and the importance of staying hydrated and cool. Promote heatwave preparedness and provide information on protective measures.
- **Develop early warning systems:** Improve heatwave forecasting and early warning systems to alert communities well in advance. This allows people to take necessary precautions and adapt their behaviours accordingly.

- **Implement urban planning and design measures:** Incorporate heat-resistant urban planning and design principles. This includes increasing green spaces, implementing cool roofs and pavements, and promoting natural shading through trees and green infrastructure. Such measures help reduce the urban heat island effect and improve thermal comfort in cities.
- **Improve building design and insulation:** Enhance building codes and standards to ensure proper insulation, ventilation, and shading in both residential and commercial buildings. Energy-efficient designs and technologies can help reduce indoor heat and lower cooling demands.
- **Enhance cooling infrastructure:** Develop and maintain cooling infrastructure, particularly in vulnerable areas such as hospitals, nursing homes, schools, and public spaces. This includes air conditioning systems, misting stations, and shaded areas to provide relief during extreme heat.
- **Mitigate climate change:** Address the root cause of heatwaves by reducing greenhouse gas emissions and transitioning to cleaner and more sustainable energy sources. Advocate for policies and practices that support climate change mitigation and adaptation efforts.

Ensure Execution Of SoO Pact with Kukis

Context

- The Suspension of Operations (SoO) deal with Kuki rebel groups in the hill areas will be carried out, Union Home Minister Amit Shah pledged, according to Manipur Chief Minister N. Biren Singh on Monday.
- The agreement mandates that the insurgent factions remain in their assigned camps and keep their weapons hidden. According to the Chief Minister, the Kuki insurgent groups broke the SoO pact's ground conditions and promoted bloodshed.

What is the historical background of the Kuki Insurgency?



- **Background:** The Kuki Insurgency is a struggle involving the Kuki ethnic group that is largely taking place in Manipur and Nagaland in northeastern India.
- **KNA, the Kuki National Army:** The KNA was established in 1947 as part of the effort to abolish British colonial control. The KNA focused on the Indian government after India attained independence.
- **Demands:** The Kuki groups have called for increased autonomy, the defence of their cultural identity, and the redress of socioeconomic wrongs.
- **Fragmented Movement:** The Kuki insurgent movement is characterised by several factions and breakaway groups, including the United Kuki Liberation Front (UKLF), Kuki National Army, and others.
- **Violence and conflicts:** Both Kuki and non-Kuki people have been displaced as a result of the conflict's intermittent violence, clashes with security forces, and inter-tribal disputes.
- **Homeland and Autonomy:** The Kuki organisations have demanded the establishment of an independent Kuki nation, where they can exercise self-government and safeguard their cultural legacy.

- **Socio-Economic Grievances:** The Kuki people have expressed worries about socioeconomic inequalities, poor growth, and a lack of possibilities in their communities.
- **Negotiations and Peace Agreements:** The rebel organisations, state governments, and the Indian central government have all engaged in negotiations to end the conflict. Suspension of Operations (SoO) agreements have been signed, offering transient cessations of hostilities and promoting communication.

What is Suspension of Operations (SoO)?

- On August 22, 2008, a **Suspension of Operations (SoO) agreement** was reached to foster political discourse and **put an end to the Kuki insurgency in Manipur.**
- **Duration and Extension:** The SoO agreement's initial term is one year, but it may be extended based on how well implementation is going.
- **JMG, or the Joint Monitoring Group:** The Joint Monitoring Group was established as a group to supervise the efficient execution of the SoO pact. All of the signatories are represented on this committee.
- **Ceasefire:** According to the agreement, neither state- nor central-level security forces are allowed to conduct operations against underground organisations. The rebel organisations are also forbidden from starting any attacks or hostilities.
- **Constitutional Commitment:** The United People's Front (UPF) and the Kuki National Organisation (KNO), the parties to the SoO agreement, have promised to uphold the Indian Constitution, the laws of the land, and the territorial integrity of India.
- **Extortion and Atrocities are Prohibited:** Any kind of extortion, atrocities, or other illegal actions are not permitted by underground groups.
- The militant cadres must be restricted in certain camps that the government has identified.
- **Management of Arms:** The groups are permitted to own weapons, but only to secure their camps and defend their leaders. The arms are placed in a secure space that has two locking mechanisms.
- **Rehabilitation Package:** As part of the rehabilitation package, the underground cadres residing in designated camps are given a monthly stipend of Rs 5000. The chosen camps receive financial aid as well.

Way forward to solve the insurgency problem:

- **Dialogue and Negotiation:** Engage in real discussions and negotiations with rebel organisations to learn about their issues and try to reach a compromise. This could entail starting peace negotiations, signing ceasefire pacts, and taking steps to increase trust.
- **Resolve the root causes:** Determine the underlying reasons for the problems, such as socioeconomic inequalities, ethnic tensions, previous wrongdoings, and political marginalisation, and deal with them. To solve these fundamental problems, encourage inclusive government, equitable development, and social justice.
- **Development Initiatives:** Implement focused development initiatives in the area to enhance the region's infrastructure, healthcare, education, and employment

prospects. These programmes could assist in addressing socioeconomic inequalities and decreasing the attractiveness of insurgency among disadvantaged groups.

- **Boost Security Procedures:** increase the security forces' ability and efficacy to uphold the law, protect the populace, and put an end to insurgency activity. However, it is crucial to make sure that security operations respect human rights principles and refrain from using disproportionate force.
- **Regional Cooperation:** Fostering regional collaboration and coordination is important since some rebel organisations cross international boundaries, particularly in Myanmar, Bangladesh, and Bhutan. Insurgent activity can be reduced through exchanging intelligence, engaging in cooperative operations, and dealing with cross-border infiltration.

Biofertilizer Scheme Gets Central Govt.'s Green Light

Context:

The PM-PRANAM (PM Programme for Restoration, Awareness, Generation, Nourishment and Amelioration of Mother Earth) initiative, which was promised in the previous budget, was authorised by the Cabinet Committee on Economic Affairs (CCEA) on Wednesday.

What is Cabinet Committee On Economic Affairs?

- **Composition:** The **Prime Minister chairs the CCEA**, which is made up of senior members of the Indian Cabinet. The committee also includes the ministers of commerce, agriculture, and finance as well as any other relevant ministers considered essential.
- **Decision-making power:** The CCEA can decide on financial and economic issues that need high-level approval. Major investment plans, policy initiatives, and choices about economic growth are all reviewed and approved by it.
- **Policy Formulation:** The CCEA develops and shapes economic policy in several areas, including business, infrastructure, agriculture, energy, trade, and investment. It ensures coordination and consistency among many ministries and departments to accomplish economic goals.
- **Project approvals:** The CCEA reviews and grants project approval for large investment initiatives with significant economic ramifications. Large-scale infrastructure initiatives, business expansions, bids for



foreign direct investment, and strategic sector investments are a few examples of these undertakings.

- **Pricing and subsidies:** The CCEA discusses concerns over the cost of things including fertiliser, petroleum products, and other necessities. It establishes the subsidy levels and assesses the effects on the economy and welfare of the general public.
- **Crisis management:** The CCEA is essential in developing and putting into action plans to address the situation during economic emergencies or crises. To lessen the effect of the crisis on the economy, choices may need to be made regarding fiscal stimulus plans, assistance programmes, and policy actions.
- **Making a report to the Cabinet:** The Cabinet of India receives the CCEA's decisions and recommendations for additional review and approval. The concerned ministries receive direction and directives from the Cabinet for efficient implementation.

What is PM-PRANAM?

The **PM PRANAM (Promotion of Alternate Nutrients for Agriculture Management Yojana) scheme** was launched by the **Indian government** to reduce the **use of chemical fertilizers** and **promote the balanced use of fertilizers** in conjunction with **biofertilizers and organic fertilizers**. The objective of the scheme is to bring down the subsidy burden on chemical fertilizers, which was estimated to reach Rs 2.25 lakh crore in 2022-23, a 39% increase from the 2021 figure of Rs 1.62 lakh crore.

➤ Objectives:

- A) Encourage the balanced application of fertilisers, including organic and biofertilizers.
- B) lessen the financial burden of chemical fertiliser subsidies.

➤ Funding:

- A) Savings from current fertiliser subsidies under programmes managed by the Department of Fertilisers will be used to pay for the programme.
- B) There is no specific budgetary allocation for it.

➤ Grants to States:

- A) The state that saves them money on subsidies will receive a grant in the amount of 50% of the savings.
- B) States are encouraged by this to deliberately cut back on the use of chemical fertilisers.

➤ Asset Creation:

- A) The scheme allows for the use of 70% of the grant money for asset creation.
- B) This entails using alternative fertiliser technology and setting up production facilities at the village, block, and district levels.
- C) The objective is to encourage the creation and application of alternative fertilisers.

➤ Incentives:

A) The grant's remaining 30% can be used as an incentive to reward and motivate different stakeholders.

B) Incentives are available for farmers, panchayats, farmer-producer organisations, and self-help organisations that reduce fertiliser consumption and raise awareness.

C) This encourages people and organisations to actively engage in sustainable agriculture practices.

➤ **Fertiliser Reduction Calculation:**

A) The urea-specific reduction in chemical fertiliser consumption will be determined.

B) The amount of urea consumed in a given year will be contrasted with the average amount consumed over the previous three years.

C) For this, information from the Fertiliser Ministry's Integrated Fertilisers Management System (IFMS) dashboard would be utilised.

➤ **government's burden of subsidy:**

A) Maximum Retail Prices (MRP), which are discounts from market prices, are what farmers pay for fertilisers.

B) to bridge the difference between the MRP and the real production/import costs, the government offers subsidies to fertiliser firms.

C) The government wants to lessen the growing subsidy burden by implementing the PRANAM programme.

D) Fertilizer usage in India: India's consumption of fertiliser totalled 1.62 trillion rupees in 2020–21, and is expected to reach 2.25 trillion in 2022.

E) The total amount of fertiliser needed—528.86 lakh metric tonnes in 2017–18 to 640.27 lakh metric tonnes in 2021–22—increased by 21%. This requirement included urea, DAP, MOP, and NPKS.

F) The requirement for DAP had the largest growth during this time, rising by 25.44 per cent.

G) The consumption of urea, the most popular chemical fertiliser, increased by 19.64% over the previous five years.

What did CCEA decide on the Biofertilizer scheme?

- **Total Outlay:** The scheme's outlay is 3,70,128.7 crore in total.
- **Participation of State Governments:** State governments take part in the plan. By offering a subsidy from the savings from the decrease in the use of chemical fertilisers, the federal government will encourage states to embrace alternative fertilisers.
- **Savings on Subsidies:** If a State cuts back on the use of Conventional Fertilisers, the Savings on Subsidies will be based on the reduction. The subsidy savings, for instance, would be 3,000 crores if a state reduced its usage from a beginning usage of 10 lakh tonnes to three lakh tonnes.

- **Central government Incentives:** State adoption of alternative fertilisers will be rewarded by the federal government with 50% of the subsidy savings.
- **Urea Subsidy Scheme to Continue:** The CCEA approved the urea subsidy scheme to continue. This guarantees that farmers will continue to have access to urea at a set price of \$242 for a bag weighing 45 kg.
- **Promotion of Nano Urea:** The country has seen a rise in the **use of nano urea, a more effective and ecologically friendly form of urea.** The government intends to put eight nano urea plants online by 2025–2026 with a 44 crore bottle output capacity.
- **Market Development Assistance (MDA) for Organic Fertilizers:** The **CCEA** authorised **\$1,451.84 crore for market development assistance (MDA)** for organic fertilisers. With the help of this financing, organic fertilisers made from Gobardhan plants will be promoted.
- **Organic Fertilizers Promotion: Fermented organic manures (FOM), liquid FOM, and phosphate-rich organic manures (PROM)** produced as by-products from **bio-gas plants or compressed biogas (CBG)** plants established under the Gobardhan programme would be the main focus of the promotion for organic fertilisers.



HISTORY AND ART AND CULTURE

Escalating Violence in the West Bank: The Urgent Need for Peace and Dialogue in Israel-Palestine Conflict”

Context:

- The spiralling violence in the occupied West Bank between Israelis and Palestinians.
- It highlights recent incidents of violence, including Israeli raids, gun attacks, and settler rampages, which have escalated tensions in the region.

Relevance:

- General Studies Paper-II: International Relations
- General Studies Paper-III: Security Challenges and their management

Prelims:

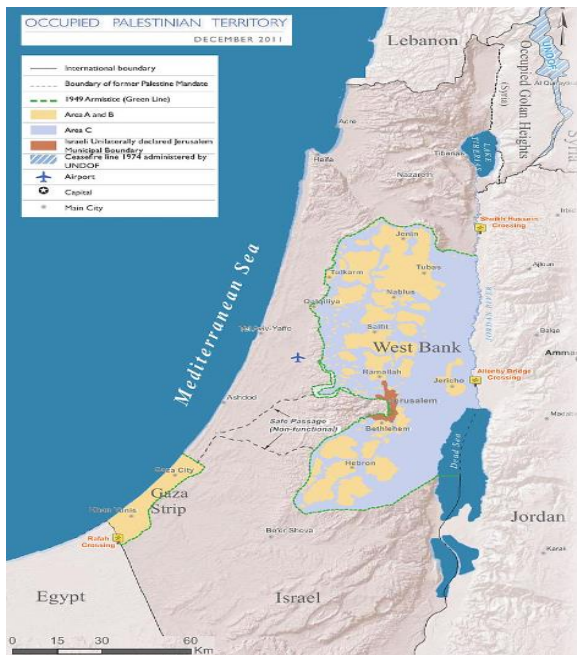
- Geography of Israel & Palestine.
- Arab Israel war of 1948.
- Abraham Accord.
- Jerusalem’s al-Aqsa Mosque

Mains questions:

- Reflecting on the Israeli-Palestinian conflict, critically analyse the role of political, socio-economic, and historical factors in perpetuating violence and hindering the peace process. What broader lessons can be drawn from this conflict for conflict resolution and peacebuilding efforts worldwide? (250 words)
- Discuss the role of international actors in resolving the Israeli-Palestinian conflict and suggest possible measures to de-escalate tensions and promote peace. (150 words)

Israel and Palestine:

- **Historical Context:** The conflict between Israel and Palestine dates back to the early 20th century, rooted in competing national aspirations and claims to the same land.
- **Creation of Israel:** The establishment of the State of Israel in 1948 led to the displacement of hundreds of thousands of Palestinians, resulting in a large refugee population and fuelling Palestinian grievances.
- **Occupied Territories:** Israel’s occupation of the West Bank, including East Jerusalem, and the Gaza Strip since the 1967 Arab-Israeli war has been a major point of contention, with Palestinians demanding self-determination and an end to occupation.



- **Israeli Settlements:** The expansion of Israeli settlements in the occupied territories has been a significant obstacle to peace, as they are considered illegal under international law and undermine the viability of a future Palestinian state.
- **Status of Jerusalem:** Both Israel and Palestine claim Jerusalem as their capital, leading to disputes over control and sovereignty. The issue of Jerusalem remains a major stumbling block in peace negotiations.
- **Security Concerns:** Israel cites security concerns, including acts of terrorism, as a justification for its military presence and restrictions on movement in the occupied territories. Palestinians argue that these measures infringe upon their rights and hinder their daily lives.
- **Gaza Blockade:** Israel's blockade of the Gaza Strip, which has been in place since 2007, severely

restricts the movement of goods and people, exacerbating the humanitarian situation and contributing to tensions.

- **Internal Palestinian Divisions:** Political divisions between Fatah, which controls the West Bank, and Hamas, which governs Gaza, have hindered Palestinian unity and created challenges for negotiations with Israel.
- **International Peace Efforts:** Numerous international initiatives, including the Oslo Accords, the Quartet on the Middle East, and the United Nations resolutions, have sought to facilitate a negotiated solution but have yet to yield a lasting peace agreement.
- **Regional and Global Implications:** The Israeli-Palestinian conflict has wider regional and global implications, impacting stability in the Middle East and influencing international relations. It also intersects with issues such as terrorism, refugee crises, and religious tensions.

Dimensions of the article:

- Escalation of Violence in the West Bank
- Root Causes and Implications:
- Role of India and Way Forward

Escalation of Violence in the West Bank:

- The recent surge in violence in the West Bank, characterized by Israeli raids and Palestinian attacks, has significant implications for regional stability and the peace process.
- The Israeli settlements, which continue to expand in the occupied territories, have been a major point of contention. These settlements are considered illegal under international law and undermine the prospects of a two-state solution.
- The frustration and sense of injustice among Palestinians have given rise to local resistance groups, such as the Jenin Brigade, resorting to low-tech attacks against

Israeli soldiers and settlers. This represents a shift from isolated knife attacks to more organized and coordinated acts of violence.

- The Israeli government's retaliatory measures, including demolishing houses and launching airstrikes, not only escalate the violence but also breed resentment among Palestinians, fuelling further acts of aggression.

Root Causes and Implications:

- The failure to achieve a lasting political solution and address the core issues, such as the status of Jerusalem, borders, and the right of return for Palestinian refugees, has contributed to the perpetuation of the conflict.
- The expansion of Israeli settlements undermines the viability of a future Palestinian state, as it encroaches upon Palestinian territories and restricts their access to resources.
- The political divisions among Palestinian factions, with Fatah controlling the West Bank and Hamas ruling Gaza, further complicate efforts to achieve unity and negotiate effectively with Israel.
- The lack of meaningful international intervention and pressure on Israel to halt settlement expansion and abide by international law has allowed the situation to deteriorate.
- The sustained violence not only poses a threat to the lives and security of both Israelis and Palestinians but also perpetuates a cycle of hatred and revenge, hindering the prospects for lasting peace and stability in the region.

Way Forward:

- International actors, including the United States, European Union, and Arab states, should play a more proactive role in mediating the conflict, putting pressure on Israel to freeze settlements and encouraging both sides to return to the negotiating table.
- Revitalizing diplomatic efforts through multilateral forums such as the United Nations and the Quartet on the Middle East can provide a platform for meaningful dialogue and negotiations.
- Confidence-building measures, such as easing restrictions on the movement of goods and people, improving access to basic services, and promoting economic development, can help address the underlying grievances and foster an atmosphere of trust.
- Civil society organizations, peace-building initiatives, and Track II diplomacy should be supported to facilitate people-to-people contact, cultural exchange, and grassroots dialogue between Israelis and Palestinians.
- Regional cooperation and engagement, including the involvement of neighbouring Arab states, can provide additional support and incentives for peacebuilding efforts.

Role of India and Way Forward:

- India, as a non-permanent member of the United Nations Security Council and a prominent actor in the global arena, should actively engage in efforts to resolve the Israeli-Palestinian conflict.

- India's historical support for the Palestinian cause and its balanced approach in engaging with both Israelis and Palestinians positions it as a credible mediator.
- India can leverage its diplomatic relations with Israel, Palestine, and other key stakeholders to facilitate dialogue, encourage confidence-building measures, and promote a just and lasting solution based on the principles of international law and relevant UN resolutions.
- India can also contribute to the socio-economic development of the Palestinian territories through capacity-building initiatives, investment in infrastructure projects, and humanitarian assistance, thereby addressing the underlying grievances and fostering a conducive environment for peace.

Manipur's Communal Clash: Seeking Consensus for Peaceful Resolution

Context:

The ongoing communal clash between the Kuki and Meitei communities in Manipur has resulted in a tragic and prolonged conflict, underscoring the futility of media debates, political posturing, and empty promises when it comes to resolving deadly conflicts.

Relevance:

GS-02 (Issues related to Minorities, SCs and ST's) (Poverty and development)

Prelims:

- Meitei tribes, Kuki tribes, and Naga tribes.
- 6th Schedule
- Bhuria Commission
- Xaxa Committee

Mains Questions:

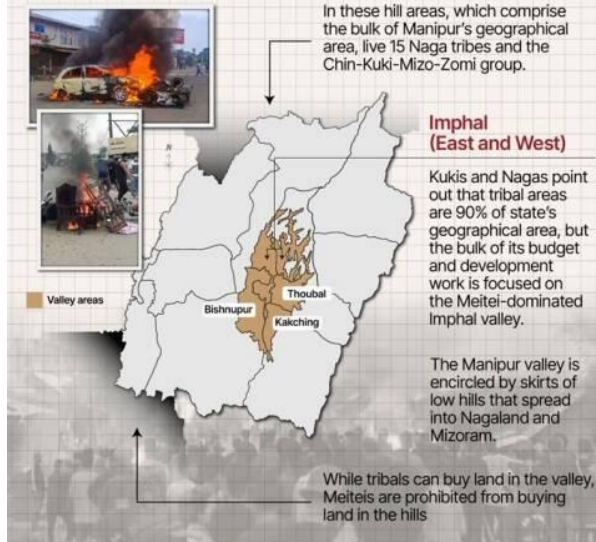
Analyse the geographical factors influencing the communal conflict in Manipur and its implications on the state's integrity. (150 words)

The Process of Inclusion in the Scheduled Tribes (ST) List:

- State governments initiate the process by recommending tribes for inclusion in the ST list.

Manipur's ethnic faultlines: Kuki-Meitei divide & recent unrest

There are 16 districts in Manipur, but the state is commonly thought of as divided into 'valley' and 'hill' districts.



- Tribal Affairs Ministry examines the recommendations received from the state governments. These recommendations are then forwarded to the Registrar General of India, operating under the Home Ministry, for further scrutiny and approval.
- Once approved by the Registrar General of India, the recommendations are forwarded to the National Commission for Scheduled Tribes.
- After thorough consideration by the National Commission for Scheduled Tribes, the recommendations are presented to the Cabinet for a final decision.
- If the Cabinet approves the recommendations, it initiates the process of amending the Constitution (Scheduled Castes) Order, 1950, and the Constitution (Scheduled Tribes) Order, 1950.

- Once the amendment bill is passed by both houses of Parliament, it is forwarded to the President's office. The President, acting under the authority of Articles 341 and 342 of the Constitution, takes the final decision on the inclusion of tribes in the ST list.

Dimensions of the article:

- Interlink in Mutual Welfare
- Meiteis' Territorial Integrity and Historical Context
- Acknowledging Meitei Pain and Ethnic Cleansing
- Meitei Society's Violent Response and Root Causes
- Kukis' Grievances and Path to Normalcy

Interlink in Mutual Welfare

- The interdependence between Manipur's hills and valleys has a significant bearing on the welfare of both regions.
- Geographical factors such as the integral geography of hills, valleys, rivers, and lakes create shared destinies and make any disruption to this integrity a potential threat to the sense of security of different communities.
- Scholars like Robert D. Kaplan and Halford J. Mackinder have highlighted how conflicts rooted in shared geographical destinies have unfolded throughout history.
- Recognizing the mutual dependence of Manipur's hills and valleys is crucial in understanding the dynamics of the current standoff.

Meiteis' Territorial Integrity and Historical Context

- The Meitei community's deep concern for Manipur's territorial integrity can be traced back to historical factors.
- The British introduction of skewed land law, inherited by independent India, led to the confinement of the Meiteis in the small Imphal Valley. The British, faced with "non-state bearing" populations in the surrounding hills, chose to associate with the centralized bureaucracies of the "Paddy States" rather than subjugate each community individually. This governance mechanism, including the Bengal Eastern Frontier Regulation of 1873, was implemented in Manipur as well.
- The Meiteis' demand for Scheduled Tribe (ST) status can be seen as a response to the sense of confinement and besiegement they have endured over the years.

Acknowledging Meitei Pain and Ethnic Cleansing

- While there is a focus on the ethnic cleansing happening in Manipur due to the recent conflict, it is crucial to recognize the silent and seemingly non-aggressive ethnic cleansing of Meiteis from Manipur's hills since India's Independence.
- The pain and humiliation faced by the Meiteis, along with the displaced individuals affected by the present crisis, need to be acknowledged.
- The demand for ST status serves as a desperate plea against this sense of besiegement, emphasizing the accumulated suffering endured by the Meiteis.

Meitei Society's Violent Response and Root Causes

- The shocking and indiscriminate violence exhibited by the Meiteis following the events of May 3 in the Torbung area of the Churachandpur district requires deeper analysis. It goes beyond the actions of a few organizations involved in the crisis. This surge of violence reflects a primordial, malevolent, and infantile force within Meitei society, breaking the bounds of civilizational control.
- The inability of the rational ego to exert influence contributes to the readiness to kill or die, showcasing the profound mobilization of the entire community. The situation echoes W.B. Yeats' famous line, "A terrible beauty is born," blurring the distinction between beauty and beastliness.

Kukis' Grievances and Path to Normalcy

- The Kuki community has also endured long-standing grievances and a sense of persecution resulting from policies targeting poppy plantations, illegal migration, and encroachment into reserved forests.
- While it is important to acknowledge these concerns, it is crucial to prioritize the restoration of normalcy rather than engaging in finger-pointing.
- Leadership at the highest level should take the initiative to halt the ongoing conflict, while measures such as providing conclusive evidence of the withdrawal of Kuki militants and recovering looted weapons from police stations can help restore trust and facilitate the return to peace.
- Taking inspiration from Mahatma Gandhi's decision to call off the Non-Cooperation Movement after the violent Chauri Choura incident, leaders must demonstrate courage and prioritize the well-being of all communities.

Way Forward:

It is essential to establish a framework of dialogue and consensus-building involving all stakeholders, including the Kukis and Meiteis. Structural administrative changes that are agreeable to all parties should be considered to address the underlying issues contributing to the conflict. The restoration of peace and the safe return of displaced individuals should be the primary focus, necessitating comprehensive measures to alleviate the suffering and facilitate reconciliation.

Conclusion:

The ongoing communal clash in Manipur underscores the urgency of finding a peaceful resolution that considers the interlink between communities, historical grievances, and territorial integrity. The complexity of the conflict demands a holistic approach with a focus on consensus-building, acknowledging the pain of all affected parties, and addressing the root causes of the violence. By prioritizing dialogue, understanding, and compassion, Manipur can pave the way for a harmonious future where all communities can thrive together.

Mesolithic-era rock painting in Andhra Pradesh

Context:

Painting of a man tilling land found at cave shelters at Orvakallu village in Guntur district.

What was discovered?

- D. Kanna Babu, a former Superintending Archaeologist for the Temple Survey Project (Southern Region) of the Archaeological Survey of India, Chennai, discovered the rock painting.
- He came across it while looking across the lower River Krishna Valley to examine the shrines' architectural details.

Where was it located?

- In the Andhra Pradesh village of Orvakallu, in the Guntur district, rock art was discovered on the walls and ceiling of natural rock shelters.
- Mesolithic humans, who lived approximately 5000 BC, are thought to have painted the rocks.

What kind of materials were used?

- Natural white kaolin and red ochre paints were used to create the paintings.
- While kaolinite is a soft, earthy mineral produced by the chemical weathering of aluminium silicate minerals like feldspar, ochre is a pigment made of clay, sand, and ferric oxide.

The present condition of these paintings:

- Due to exposure to air and wind over thousands of years, the majority of rock art has sustained substantial deterioration.
- Visitors can still see some of the sketches and outlines that have managed to remain.

What does this painting signify?

- The finding of these rock paintings is significant because it provides archaeological proof of early agricultural methods and a semi-settled lifestyle during the Mesolithic era.
- It aids in understanding the customs, social systems, and cultural facets of the inhabitants of the area at the time.

How to preserve these paintings?

- Despite their degradation, the rock drawings serve as a reminder of the necessity for preservation efforts to safeguard and conserve this priceless cultural asset.

- The preservation of these antiquated pieces of art for future generations should be ensured by taking steps to stop further deterioration.

Tribal mat art is woven into Yoga Day

Context :

India will highlight the talent of its tribal artists on this Yoga Day in addition to boosting awareness of the advantages of yoga and meditation worldwide.

Tribal Cooperative Marketing Development Federation of India (TRIFED)



- **Establishment:** TRIFED was established in August 1987 under the Multi-State Cooperative Societies Act, 1984 by the Government of India.
- **Mandate:** TRIFED's basic mandate is to bring about socio-economic development among tribal communities in India. It achieves this by institutionalizing the trade of Minor Forest Produce (MFP) and Surplus Agricultural Produce (SAP) collected or cultivated by the tribes.
- **Administrative Control:** TRIFED operates as a national-level cooperative body under the administrative control of the Ministry of Tribal Affairs (formerly the Ministry of Welfare).
- **Market Developer and Service Provider:** TRIFED acts as a market developer and service provider for tribal communities. It focuses on developing and promoting the marketing of tribal products that form a significant part of the tribes' income and livelihoods.
- **Capacity Building:** TRIFED's approach involves the capacity building of tribal people. It conducts sensitization programs to raise awareness and imparts training to tribal communities, enabling them to undertake their activities more systematically and scientifically.
- **Self-Help Groups (SHGs):** TRIFED encourages the formation of Self Help Groups (SHGs) among tribal communities. SHGs help tribal individuals come together, pool resources, and undertake economic activities collectively, enhancing their bargaining power and livelihood prospects.
- **Marketing Possibilities:** TRIFED explores marketing possibilities for tribal products in both national and international markets. It identifies potential buyers, establishes

market linkages, and promotes the sale of tribal products to ensure a sustainable income for tribal communities.

- **Creating Brand Value:** TRIFED focuses on creating a brand for tribal products. By promoting and enhancing the market value and recognition of these products, TRIFED aims to uplift the socio-economic status of tribal communities and facilitate a better livelihood for them.
- **Minimum Support Price (MSP):** TRIFED implements a Minimum Support Price (MSP) for Minor Forest Produce (MFP). This ensures that tribal collectors receive fair and remunerative prices for their forest produce, protecting their economic interests.
- **VanDhan Program:** TRIFED's VanDhan program aims to establish Van Dhan Vikas Kendras (VDVKs) or tribal livelihood development centres. These centres provide facilities for the processing, value addition, and packaging of tribal products, enabling tribal communities to enhance their product quality and marketability.
- **Forest Rights Act, 2006:** TRIFED's MSP for MFP and VanDhan program aligns with the provisions of "The Scheduled Tribes and Other Traditional Forest Dwellers (Forest Rights Act, 2006)." This act recognizes and safeguards the rights of forest-dwelling communities, including tribal communities, over land and other natural resources.

International Yoga Day

- The ninth International Yoga Day is being observed by people all around the world with live festivities.
- International yoga day is observed on 21st June every year
- Over 180 countries' representatives will attend the celebrations at the UN headquarters, which will be led by Prime Minister Narendra Modi. Notably, it is expected that 250 million people would take part in the occasion, which will focus on the idea of "Vasudhaiva Kutumbakam," or "One Earth. One Future. One Family."

How did the tribes get benefited from yoga day?

- **Collaboration:** For this project, the Ministry of Ayush is working with the Tribal Cooperative Marketing Development Federation of India (TRIFED). Through this alliance, a concerted campaign to promote yoga and aid indigenous craftsmen is made possible.
- **Yoga mat procurement:** TRIFED is buying 34,000 yoga mats solely from Indian tribal craftspeople. The purpose of these mats is to raise awareness of yoga and its advantages.
- **Unique designs and motifs:** Each yoga mat will have unique designs and motifs that reflect the tribal tribes' cultural heritage. The rich diversity of Indian tribes will be displayed through these designs, which will reflect their myths, culture, and artistic past.
- **Opportunities for tribal communities' economies to grow:** The project attempts to improve opportunities for tribal communities' economies. The partnership gives tribal artists the chance to demonstrate their abilities and workmanship on a national level by purchasing yoga mats from them, so creating economic and employment options.

Rani Durgavati

Context :

To kick off the six-day "**Veerangana Rani Durgavati Gaurav Yatra**," an endeavour of the State government to honour the heritage of the **16th-century Gondwana kingdom queen Rani Durgavati**, **Union Home Minister Amit Shah** will travel to **Balaghat in Madhya Pradesh** on **Thursday**.

Who was Rani Durgavati?

➤ Birth And Heritage:

- **Rani Durgavati** was born to the renowned **Chandel emperor Keerat Rai** on October 5, 1524, during the Chandel dynasty.
- The Chandel dynasty was well known for its brave **king Vidyadhar**, who **thwarted Mahmud of Ghazni's** invasions.
- The famed **Khajuraho temples and the Kalanjar fort** are examples of the dynasty's love of sculpting.



➤ Marriage and Alliance

- In 1542, **Rani Durgavati** wed **Dalpatshah**, the **Gond dynasty's eldest son** and the son of King Sangramshah.
- The Chandel and Gond dynasties became more closely knit as a result of the union.
- The Gonds and Dalpatshah supported Rani Durgavati's father Keerat Rai during Sher Shah Suri's invasion, which resulted in Sher Shah's demise.

➤ Leadership and Widowhood:

- In the year 1545, **Rani Durgavati** gave birth to a son by the name of **Vir Narayan**.
- Around 1550, **Rani Durgavati** assumed **leadership of the Gond kingdom** following the passing of her husband Dalpatshah.
- **Adhar Kayastha and Man Thakur**, two ministers, assisted her in running the government.
- The kingdom's capital was transferred from **Singaurgarh to Chauragarh**, an essential fort in the Satpura hill range.

➤ Defeating Bajbahadur:

- In 1556, **Sujat Khan's son Bajbahadur** took control of the Malwa province.
- The stormy romance between Bajbahadur and Rani Roopmati gained notoriety.

- Rani Durgavati's reputation was improved when Bajbahadur tried to attack her but was soundly defeated.
- **Interactions with the Mughals:**
- In 1562, **Akbar annexed the Malwa province** to the **Mughal Empire**.
 - The **Mughal dynasty and Rani Durgavati's** realm had direct interaction.
 - **Ramchandra, the monarch of Rewa**, was vanquished by **Abdul Majid Khan**, a Mughal subedar who was drawn to Rani Durgavati's state by her wealth.
 - Abdul Mazid Khan invaded Rani Durgavati's realm with Akbar's approval and was motivated by imperialism and expansionism.
- **Battle and Defence:**
- Rani Durgavati decided to defend her realm and set up camp in Narrai, a valley bounded by the **Gaur and Narmada rivers** on either side of a mountainous ridge.
 - She led a valiant defence despite having outnumbered and inadequately equipped forces.
 - After her Fauzdar Arjun Das was murdered, Rani Durgavati took charge of the defence alone.
 - Her forces triumphed after effectively repelling the Mughal army and pursuing them.
- **Final Battle and Sacrifice:**
- The Mughals reassembled, and Asaf Khan ordered heavy artillery the following morning.
 - Rani Durgavati persisted in the battle while mounted on her elephant Sarman.
 - Her son Vir Narayan put up a heroic fight that repeatedly forced the Mughal army to turn back.
 - Sadly, Vir Narayan was hurt in the conflict.
 - Even though she was hit by arrows, Rani Durgavati remained conscious.
 - She refused to leave the battlefield despite knowing that she would soon be defeated and killed herself with a dagger.
 - As "Balidan Diwas" (Martyrdom Day), June 24, 1564, is remembered as the day she was crucified.
- **Legacy and Honours:**
- Rani Durgavati was renowned for her administrative prowess, beauty, bravery, and fearlessness.
 - Rani Durgavati and her son Veer Narayan are well known for their connections to the Madan Mahal Fort in Jabalpur.
 - In her honour, the University of Jabalpur was renamed Rani Durgavati Vishwavidyalaya by the Madhya Pradesh government in 1983.
 - On June 24, 1988, the Indian government released a postage stamp in memory of her.
 - The Durgavati Express (11449/11450) runs between Jabalpur Junction and JammuTawi and is named for the Queen.
 - The third Inshore Patrol Vessel (IPV) of its kind, ICGS Rani Durgavati, was commissioned by the Indian Coast Guard on July 14, 2018.

- On June 24, 1988, the Indian government honoured her by releasing a postal stamp in remembrance of her martyrdom.

Why was the queen in the news recently?

- The '**Veerangana Rani Durgavati Gaurav Yatra**,' a six-day programme organised by the State government, would be launched in **Balaghat, Madhya Pradesh**, during Amit Shah's visit there.
- The yatra aims to honour the legacy of Queen Durgavati, a prominent figure from the 16th-century Gondwana kingdom.
- The yatra has **five routes** that leave from various points in **Madhya Pradesh**. The **Vindhya and Mahakoshal regions**, where Queen Durgavati is greatly honoured, are two areas where tribes predominate.
- **21% of the people of Madhya Pradesh** are tribal. The yatra seeks to establish relationships with and win the support of the tribal groups.
- Madhya Pradesh has **230 Assembly seats, 47 of which are set aside for tribal groups**.

Kalaingar pen monument in the Bay of Bengal

Context :

The Tamil Nadu government's plan to build the Muthamizh Arignar Dr Kalaingar pen monument in the Bay of Bengal, off the Marina beach in Chennai, has been approved by the Union Ministry of Environment (CRZ), but with 15 restrictions.

Muthuvel Karunanidhi

- **Muthuvel Karunanidhi**, born in 1924 in **Thirukkuvalai, Tamil Nadu**, India, was an **atheist and rationalist** who participated in social movements and literature.
- He founded the **Tamil Nadu Tamil Manavar Mandram** and started a newspaper called Murasoli, later becoming the official publication of the **DMK party**.
- Karunanidhi contributed significantly to **Tamil literature, writing screenplays, historical novels, biographies, poems, and novels**. He was influenced by the rationalist and egalitarian ideology of Periyar and DMK founder C.N. Annadurai.
- He led the **DMK to a landslide victory in the 1971 Assembly** elections and later led the DMK to power in 1996. He was arrested in 2001 and later formed an alliance with the Congress in the 2004 Lok Sabha elections.

- He served as Chief Minister again in 2006 and served until 2011. In 2016, the DMK became the largest opposition party in the Tamil Nadu Assembly.
- He died on August 7th, 2018 from a disease brought on by ageing that caused multiple organ failure.



Monument

- The proposed pen monument will have a floor space of 8,551 square metres and a height of 30 metres.
- It features a pen pedestal, a pedestrian walkway over the water, and a lattice bridge over the beach and land.
- Specifications for the bridge The 7-meter-wide bridge will span 290 metres above land and 360 metres above the water.

Procedure to Establish a Monument

- **Coastal Regulation Zone (CRZ) Approval:** The Muthamizh Arignar Dr Kalaignar pen monument is being built in the Bay of Bengal, off the Marina beach in Chennai, Tamil Nadu, with approval from the Union Ministry of Environment.
- **Conditions for Approval:** The CRZ approval comes with 15 requirements that must be met as the project is being carried out.
- **Expert Suggestions:** The Expert Appraisal Committee and Tamil Nadu Coastal Zone Management Authority's recommendations served as the foundation for the clearance.
- **Monitoring of Compliance:** The Tamil Nadu Pollution Control Board demands the production of an annual environmental statement, and the fulfilment of requirements must be posted on the website of the Public Works Department (PWD).
- **No Objection Certificate:** Before starting construction, a no objection certificate from INS Adyar, which is 800 metres distant from the project site, must be obtained.
- **Studies on erosion and accretion:** The project must include erosion and accretion monitoring.
- **Crowd Control and Emergency Evacuation:** The regional environment office must receive reports on crowd control and emergency evacuation plans.
- **Court Orders:** The Ministry emphasises that any directives or orders issued by courts and tribunals must be followed. The National Green Tribunal's southern zone's final ruling governs the CRZ clearance.
- **Detailed Project Report:** Following the Ministry's approval, the Public Works Department (PWD) will create a detailed project report for the project's execution.
- **Infrastructure and Environmental Consultant:** The project's infrastructure and environmental consultant is Hubert Enviro Care Systems, a business with its headquarters in Chennai.



GEOGRAPHY

International Trade Has A Carbon Problem

Context :

India worries that CBAM will make it impossible for it to export carbon-intensive goods to the EU. India has reportedly denounced CBAM as being protectionist and discriminatory, even though its exports to the EU are barely 1.8% of its overall exports and are limited to steel, iron, and aluminium.

carbon tax

- With the help of a price, often in the form of a CO₂ price emitted, a **carbon tax is a measure that captures the external costs of Green House Gas (GHG) emissions**—costs of emissions that the general public bears. **Crop damage, medical expenses related to heat waves and droughts, and property losses due to flooding and sea level rise are only a few of the external costs of emissions.**
- **Due to the lack of pricing** for natural resources like air and forests, environmental damage has resulted in carbon emissions that have contributed to climate change.
- To solve this problem, nations must agree on how much they value nature and how much they should charge for carbon emissions, starting with the G-20's largest economies.
- The **three means of pricing carbon include the implementation of a national carbon tax, as in Korea and Singapore**, the use of an emissions trading system (ETS), as in China and the European Union (EU), and the application of an import tariff on the carbon content, as the EU is proposing.
- The cost of carbon is only \$6 per tonne on average across 46 countries, which is a pittance compared to the projected harm from pollution. The IMF has recommended price limitations of \$75, \$50, and \$25 per tonne of carbon dioxide for the US, China, and India, respectively. According to them, this may lead to a 23% drop in global pollution by the year 2030.



Points to Ponder:

- **India's Worries and CBAM:**
 - A significant climate law, the CBAM, was enacted by the EU with the goals of lowering greenhouse gas (GHG) emissions and levelling the playing field for EU enterprises.
 - India is worried that the CBAM will hurt its exports to the EU of carbon-intensive goods including aluminium, iron, and steel.

- Even though these products only make up 1.8% of all of India's exports to the EU, India views the CBAM as discriminatory and protectionist.
- **Objective and mission of CBAM**
- The EU's Emissions Trading System (ETS) is a market-based mechanism to lower domestic GHG emissions, which is the goal and objective of CBAM.
 - The EU is concerned that imported goods would not be subject to comparable emissions prices, which would hurt EU industries.
 - With CBAM, this problem will be solved by making certain carbon-intensive imports pay the same economic costs as EU producers under the ETS.
- **WTO consistency and non-discrimination:**
- Non-discrimination is supported as a core value by the World Trade Organisation (WTO), which is consistent with this position.
 - Although CBAM's architecture may seem origin-neutral, its use may discriminate against different products due to differential carbon price schemes or reporting demands.
 - The issue of whether the CBAM-eligible products are "like" one another and if the non-discrimination principle is in effect arises.
 - Historically, the WTO has not taken production differences into account.
- **Justification under WTO regulations:**
- If a measure is covered under the General Exceptions section of the General Agreement on Tariffs and Trade (GATT), then WTO regulations permit it to violate regulations.
 - The "conservation of exhaustible natural resources" is one of the identified policy justifications in GATT Article XX, which might be used to support CBAM.
 - The chapeau of Article XX, which prohibits discrimination between nations with the same conditions, is another requirement that CBAM must meet.
 - Critics claim that CBAM may violate the Chapeau criterion since it only takes into account explicit carbon prices and ignores implicit costs incurred by products from certain nations.
- **India-EU free trade agreement negotiations:**
- Negotiations for a free trade agreement between India and the EU are still going on, and CBAM has grown to be a key sticking point.
 - To allay its worries and achieve advantageous terms for Indian exporters in connection to the CBAM, India should cooperate with the EU.
 - India could also think about contesting the CBAM at the WTO to guarantee a just and impartial decision.

Heat and State: Poor living conditions have exacerbated the effects of heat waves.

Context:

The recent heatwave in Uttar Pradesh and Bihar, particularly in the district of Ballia, has led to numerous deaths and raised concerns about the role of poor living conditions in exacerbating the effects of heatwaves. While the local government initially attributed the deaths to the heat, a State-appointed team later expressed doubts and highlighted other factors.

Relevance:

- GS-01 (Geophysical phenomena)
- GS-02 (Government policies & Interventions)
- GS-03 (Climate change, Environmental pollution and degradation)

Prelims:

- Heatwaves
- Indian meteorological department (IMD)
- Intergovernmental Panel on Climate Change (IPCC)
- Passive cooling technology

Mains Questions:

- Discuss the factors contributing to the high mortality rate during heat waves. Examine the role of public infrastructure and social security in mitigating the impact of heat waves. (150 words)
- Critically analyse the criterion for declaring a heatwave in India and examine the impacts of heatwaves on various sectors. Discuss the measures that can be taken to mitigate the adverse effects of heat waves and protect vulnerable populations. (250 words)

Dimensions of the article:

- What are Heatwaves.? Criteria to declare a heatwave.
- Factors Contributing to High Mortality in Heatwaves.
- Need for Data Collection and Reporting.

What are Heatwaves?

- Heatwaves are prolonged periods of excessively hot weather, typically characterized by high temperatures that are significantly above normal for a specific region. These extreme heat events can have severe impacts on human health, ecosystems, agriculture, and infrastructure.



Criteria to declare a heatwave.

- **Maximum Temperature Threshold:** The maximum temperature during a heatwave must exceed the normal maximum temperature for a particular region by a certain margin.
- **Duration:** Extreme heat conditions should persist for a specified number of consecutive days, varying based on the region and climatic conditions.
- **Diurnal Temperature Variation:** Heatwaves often exhibit minimal relief during the nighttime, with higher minimum temperatures compared to normal.
- **Regional Variation:** Different regions in India may have varying thresholds and criteria for heatwave declaration, considering the climatic patterns and local conditions.
- **Local Impact:** The heatwave declaration also considers the adverse effects on human health, agriculture, and other sectors, based on local reports and observations.
- **Heat Index:** The heat index, which takes into account both temperature and relative humidity, may be considered to assess the severity of the heatwave.
- **Heatwave Warning Systems:** Meteorological departments issue heatwave warnings based on forecasts, which may trigger the declaration of a heatwave in advance.
- **Monitoring Stations:** Monitoring stations across the country record and analyze temperature data to identify regions experiencing extreme heat conditions.
- **Historical Data:** Historical weather data is compared to current conditions to determine if the temperature anomalies meet the criteria for a heatwave declaration.
- **Government Guidelines:** The Indian Meteorological Department (IMD) and respective state authorities provide guidelines and standards to determine the criteria for declaring a heatwave.

Factors Contributing to High Mortality in Heatwaves:

- **General well-being and physical exertion:** Individuals with poor health or pre-existing medical conditions are more susceptible to heat-related illnesses and fatalities.
- **Acclimatization and location:** Lack of acclimatization to high temperatures, coupled with living in densely populated and urban areas, increases vulnerability.

- **Inadequate access to resources:** Limited access to drinking water, proper healthcare, indoor ventilation, and protections against wage loss during extreme heat contribute to higher mortality rates.
- **Social factors:** Caste- and gender-based strictures often hinder individuals from taking necessary precautions, seeking medical help, or accessing relief measures during heatwaves.

Need for Data Collection and Reporting:

- **Accurate recording of heat-related deaths:** Proper registration of heat-related deaths, assigning appropriate causes, and issuing Medical Certificates of Cause of Death (MCCDs) following international standards are crucial for accurate data collection.
- **Compilation and release of MCCD data:** The Office of the Registrar General should compile and release annual MCCD reports, facilitating independent research, and policy formulation, and preventing disputes over official versus actual figures.
- **Challenges in data reporting:** The 2020 report revealed shortcomings in Bihar's data reporting, with causes assigned to only 3.4% of registered deaths. Improved data reporting can help identify gaps and prioritize interventions effectively.

Way Forward:

- To address the challenges posed by heatwaves and improve living conditions for vulnerable populations, the following steps are essential:
- **Strengthen infrastructure:** Governments must invest in public infrastructure, including access to clean drinking water, improved ventilation, and cooling facilities in hospitals and public spaces.
- **Awareness campaigns:** Launch comprehensive awareness campaigns to educate communities about heatwave risks, preventive measures, and available resources.
- **Policy interventions:** Introduce policies that mandate work breaks, provide wage protection, and ensure healthcare access during heatwaves.
- **Data transparency:** Improve data collection, assign accurate causes of death, and release annual MCCD reports to enable evidence-based research, policy formulation, and effective interventions.
- **Social empowerment:** Address social barriers such as caste- and gender-based strictures that hinder individuals from seeking assistance during heatwaves.

Conclusion:

Recognizing that poor living conditions contribute significantly to the impacts of heatwaves is crucial in addressing this aspect of the climate crisis. Governments must prioritize infrastructure development, awareness campaigns, and policy interventions to mitigate the effects of heatwaves and ensure the well-being of vulnerable communities. Improved data collection and transparency are vital for effective planning and resource allocation.

Outreach to diaspora and statesmanship

Context:

In May 2023, Tamil Nadu Chief Minister M.K. Stalin addressed the Tamil diaspora in Tokyo during his overseas tour, emphasizing the government's commitment to safeguarding the Tamil community spread across the world. This article analyses the significance of protecting the Tamil language and community, explores the diverse identities within the diaspora, and discusses the complexities faced by the diaspora in different host countries.

Relevance:

- GS-02 (Indian Diaspora)

Prelims:

- **Non-Resident Indians (NRI's)**
- **Persons of Indian Origin (PIOs)**
- **Overseas Citizens of India (OCIs)**

Mains Questions:

1. Examine the role of state and central governments in addressing the concerns and aspirations of the Indian Tamil refugees, particularly those from Sri Lanka, and propose measures for a collaborative solution. (250 words)

Exploring the Phenomenon of Diaspora: Key Insights

- Unveiling the Multifaceted Nature of Diaspora Delving into the historical context, the term "diaspora" emerges from the ancient Greek word "diaspeiro," resonating with the concept of dispersion. Notably, the inception of this diaspora can be attributed to the movement of Indians, transported to distant shores in the Eastern Pacific and the captivating Caribbean islands, courtesy of the indentured labour system, famously known as "Girmitiya."
- According to the **World Migration Report of 2022**, India coveted the title of the world's foremost origin country for housing the largest emigrant population in 2020. Surpassing nations like Mexico, Russia, and China.
- **The World Bank's Migration and Development Brief of 2022:** India is poised to witness an unprecedented milestone: remittances exceeding a staggering USD 100 billion in a singular year.

Dimensions of the article:

- Diaspora Facts:
- Diversity and Challenges:
- Impact of Host Country Policies:

- Federal Camaraderie and Collaborative Solutions:

Diaspora Facts:

- The Tamil diaspora constitutes a significant portion of the Indian diaspora, with a strong presence in countries such as Malaysia, Singapore, Sri Lanka, Myanmar, Mauritius, South Africa, and many others.
- This vibrant community identifies with three primary identities: Tamil, Indian, and the identity of the host countries. Moreover, an interesting aspect is the emergence of a “diaspora of the diaspora,” where Tamils from countries like Fiji, Malaysia, and Singapore migrate further to countries like Australia, Canada, and the United States. This phenomenon reflects the need for establishing roots and adapting to new environments.

Diversity and Challenges:

- It is important to recognize that the hopes, aspirations, and challenges faced by the Tamil diaspora are multifaceted and vary based on factors such as migration patterns, educational and professional achievements, economic influence, and the dynamics of majority-minority relations in the host countries.
- Despite these challenges, the Tamil diaspora has made remarkable contributions in diverse fields, including politics, economics, literature, fine arts, sports, and science. Notable individuals like Dr Chandrasekhar, Indira Nooyi, Sundar Pichai, and Kamala Harris have brought pride to the Tamil community.

Impact of Host Country Policies:

- The speech by Chief Minister M.K. Stalin invokes the visionary statements of Jawaharlal Nehru, who aspired for strong protection and unity of the Indian diaspora worldwide. However, the realities faced by the diaspora often diverge from these aspirations. Examples include the treatment of Indian Tamils in Ceylon and the denial of citizenship to Indian Tamils in Burma.
- The bilateral relations between India and host countries play a crucial role in shaping the fate of the diaspora. The article highlights the impact of policies on the Indian Tamil community in Sri Lanka, citing instances where political relations took precedence over safeguarding their interests.

Federal Camaraderie and Collaborative Solutions:

- While the central government holds exclusive jurisdiction over policies related to the Indian diaspora, state governments can influence these policies through public opinion. In the present context, fostering camaraderie and friendship between the Narendra Modi government and the DMK government in Tamil Nadu is essential.

- The Citizenship (Amendment) Act (CAA) is analysed, emphasizing the need for inclusive terminology, such as “persecuted minorities.” The exclusion of Sri Lanka from the CAA raises questions regarding the status of Sri Lankan Tamil refugees in India. The article proposes the urgency for collaboration between the state and central governments to find an amicable solution, highlighting the importance of statesmanship over political opportunism.



Way Forward:

- To address the concerns of the Tamil diaspora and the Indian Tamil refugees, a collaborative approach is crucial. This necessitates a comprehensive dialogue between the state and central governments, with an emphasis on the welfare and aspirations of the diaspora.
- The article recommends the formulation of inclusive policies, granting Indian citizenship to eligible refugees and ensuring their rights are protected.

Conclusion:

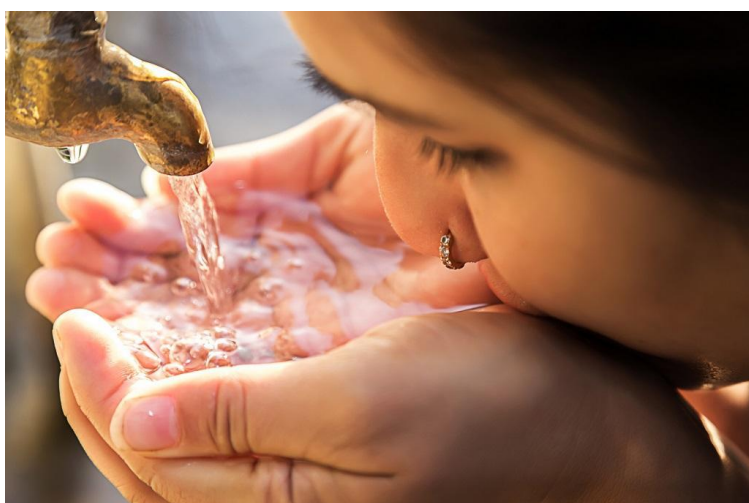
Protecting and promoting the Tamil language is essential to preserve the rich heritage and ensure the well-being of the diaspora. The article emphasizes the need for collaboration between the state and central governments, urging them to prioritize the interests and rights of the Tamil community. By addressing these concerns, India can build stronger ties with its diaspora, contributing to a shared vision of progress and unity.

Study By WHO on Water Availability In India

Context:

According to a modelling study conducted by the World Health Organisation (WHO) and commissioned by the Jal Shakti Ministry, the Centre could prevent close to 4,00,000 deaths from diarrhoea if it is successful in implementing its flagship Jal Jeevan Mission (JJM), a nearly 3.6 trillion rupee project to provide piped potable water to all of India.

Jal Jeevan Mission



- **Objective:** To provide all rural households in India with access to clean, sufficient drinking water.
- **Launch:** The Ministry of Jal Shakti started the mission on August 15, 2019.
- **Target:** By 2024, the project hopes to have installed Functional Household Tap Connections (FHTCs) in every rural Indian household.
- **Infrastructure Development:** Put your attention

on creating the infrastructure needed for water supply, including building water supply systems and installing tap connections.

- **Decentralised Approach:** Giving local groups and Gramme Panchayats more control over water delivery system planning, implementation, operation, and maintenance.
- **Convergence:** To ensure water supply and sanitation facilities together, convergence with other government programmes, such as the Swachh Bharat Mission, is prioritised.
- **Capacity Building:** Training and skill-development programmes for village-level officials and stakeholders involved in the implementation and management of water delivery systems are referred to as capacity building.
- **Information, Education, and Communication (IEC):** Public awareness campaigns and IEC initiatives to instruct rural people on good hygiene, conservation techniques, and access to safe drinking water.
- **Quality Monitoring:** Monitoring the quality of the water regularly is necessary to guarantee the availability of clean drinking water.
- **Funding:** With contributions from local governments and state governments, the central government provides the majority of the funding.
- **Impact:** By guaranteeing access to clean water, enhancing health and sanitation, and boosting general well-being, the mission hopes to alter the lives of rural populations.

Points to Ponder:

- **Potential Benefits:** The WHO research that was commissioned by the Jal Shakti Ministry suggests that the following advantages could result from the JJM's successful implementation:
 - Averting Deaths: According to the report, the mission could prevent almost 400,000 deaths from diarrhoea, a serious health concern in India.
 - Preventing Disability Adjusted Life Years (DALYs): It may also stop the loss of 14 million DALYs (Distance Adjusted Life Years) owing to diarrhoea. DALYs take into account years lost to early death as well as years spent with a disability.
 - Economic Savings: According to the study, the JJM might save healthcare expenses related to diarrheal disorders by almost \$101 billion.
 - Time Savings: The project could save the world's women, who spend primarily 66.6 million hours a day collecting water, from having to do it. This might increase gender equality and free up time for other pursuits.
- **Study Restrictions:** It's vital to keep in mind that the study has some restrictions.
 - The study is extrapolated and does not take into consideration the current levels of coverage attained by the JJM.
 - Water Contamination: The study also doesn't take into account how contaminated the water that is already distributed through pipes is. Achieving the intended health benefits requires high-quality water.
- **Progress and Coverage:** According to the government, the JJM has resulted in notable advancements in the following areas:
 - As of right now, around 62% (12.3 crores) of rural households have connected to piped water, compared to 16.6% (3.2 crores) in 2019, when the programme was first introduced.
 - Target: By 2024, the government hopes to reach 100% coverage, with a fully functional tap water connection being one that provides at least 55 litres of drinkable water per person per day throughout the year.
 - States and Union Territories: Some states and union territories, like Gujarat, Telangana, Goa, Haryana, Punjab, and three union territories, have already attained 100% coverage. Bihar and Himachal Pradesh are also on the verge of reaching saturation.
- **Return on Investment:** The Department of Drinking Water and Sanitation's Secretary, Vini Mahajan, emphasises the financial advantages of sanitation measures. According to him, every dollar spent on sanitation initiatives generates a return of \$4.3 in the form of lower healthcare expenses.

Kalasa Banduri scheme

Context

Minutes before the Karnataka Assembly elections were declared, the previous BJP government published tenders for the controversial Kalasa Banduri scheme. However, because these tenders were put out without securing forest and environmental approval, they may encounter difficulties.

Kalasa Banduri scheme

- **Objective:** The project's goal is to divert water from the Kalasa and Banduri tributaries of the Mahadayi River in India so that it can be used for irrigation and to supply drinking water to the North Karnataka areas that are prone to drought.
- **Water Sources:** The Kalasa and Banduri tributaries, which are found in the state of Karnataka and run through the Western Ghats region, will be used for the project.
- **Dams:** To store water and control its flow, the project calls for the construction of the Kalasa and Banduri dams. During dry spells, these dams will aid in providing a steady flow of water.
- **Dispute over Water Allocation:** The project has been the focus of conflict between the states of Goa and Karnataka. While Karnataka contends that the project is necessary to meet its people's water needs, Goa has expressed worries about the project's potential ecological damage and probable water shortage in its region.
- **Legal Action:** The Mahadayi Water Disputes Tribunal, a body created to settle the water-sharing disagreements between the interested states, has taken up the subject. The tribunal is in charge of reviewing both states' claims and deciding how much water from the Mahadayi River should be distributed.
- **Opposition and Protests:** In a recent joint declaration, the governments of Goa and Maharashtra expressed their shared opposition to Karnataka's water diversion proposal. The Union Government announced this choice in February 2020. The Karnataka government requested approval to convert 26.92 hectares of forest land for non-forest uses in a revised proposal it sent to the National Wildlife Board and MoEFCC a few weeks ago. The Union Government, which is currently led in Karnataka by the Congress party, may not issue clearance for the project, according to sources in the Congress party, who also say that the tenders may need to be cancelled.



Mahadayi River

- **Location:** The Mandovi River is found in the Indian state of Goa, which is found on the nation's western coast.
- **Origin:** The Western Ghats, a mountain range that runs along the western edge of the Deccan Plateau, are where it first appeared.
- **Length:** From its source to its mouth, the river travels a distance of roughly 77 kilometres (48 miles).
- **Flow:** The Mandovi River flows through the state of Goa in a generally westward direction.
- **Panaji:** Panaji, often spelt Panjim, is the state capital of Goa and is located along the Mandovi River.
- **Estuary:** The Mandovi River creates a natural harbour by forming an estuary close to its mouth. The estuary enables maritime operations and serves as a port.
- **Navigability:** The river can be navigated over a significant distance, enabling the transfer of both goods and people. It helps with river traffic and boosts the regional economy.
- **Tourism:** Goa's Mandovi River is a well-liked tourism destination. On its waters, several cruises and boat tours are available, giving tourists spectacular vistas and entertainment choices. Sunset cruises are especially well-known.
- **Ecosystem:** The river's environment is diversified and home to mangroves, marshes, and marine life. Numerous birds, fish, and water animal species call it home.
- **Festivals:** To honour the river's significance, each year the "Mandovi River Festival" attracts both locals and tourists.
- **Infrastructure development:** The Mandovi River's presence has aided in the growth of ports, jetties, and tourist attractions along its banks. Additionally, it has boosted the economies of transportation, tourism, and fishing.

Flash Floods and Landslides In Northern India

Context:

Over 200 people, including tourists and residents, are stranded in the Bagipul area of Himachal Pradesh's Mandi district due to a flash flood.

What kind of natural disaster is happening in North India?



- **Flash floods and landslides** are **natural disasters** that can cause **significant damage and pose a threat to human life.**
- Flash floods are characterised by **localised flooding** that occurs **suddenly, frequently in a matter of hours or even minutes.**
- Heavy rains frequently cause them, especially in places with **subpar drainage systems or urban areas with plenty of concrete surfaces.**
- Other than rainfall, other causes of flash floods include levee or dam failure, abrupt releases of **water from reservoirs**, and the **quick melting of snow or ice.**
- They are especially dangerous since they are quite unexpected and can happen with little to no notice.
- Flash floods can cause infrastructure damage, the **overflow of rivers and streams, flooding of low-lying areas, and eviction of people.**
- The downhill movement of **rock, soil, or debris along a slope** is referred to as a landslide, also known as a **landslip or a mudslide.**
- Although they are frequently found in mountainous or hilly areas, they can occur everywhere there are slopes or unstable geological conditions.
- Because it **saturates the earth** and **decreases its stability, heavy rainfall** is a primary cause of landslides.
- By **shaking the ground** and **causing slopes to become unstable**, earthquakes can also cause landslides.
- Landslides are more likely to occur as a **result of human activity like mining, excavation, and deforestation on steep slopes.**
- Landslides can **bury villages, obstruct highways and railways, harm buildings, and cause fatalities.**
- In the case of India, **cloudbursts**, which are **violent and localised downpours**, frequently cause flash floods. The growing number of glacial lakes produced by glacier melting presents new difficulties for the Himalayan states.
- These lakes have the potential to rupture, causing **flash floods downstream.** These areas frequently experience landslides **due to the hilly topography.**

Flash Floods and Landslips in Mandi District, Himachal Pradesh:

- Flash floods and landslips in Mandi district, Himachal Pradesh, caused severe disruption and stranding of commuters, including tourists.
- The Chandigarh-Manali National Highway and Mandi-Pandoh-Kullu stretch were affected, with 301 roads closed and 140 power transformers damaged.
- The Mandi-Kullu route was initially blocked but was opened after 20 hours. Authorities used explosives to blast boulders blocking roads.

What is the difference between flash floods and normal floods?

Rapid start, high intensity, brief duration, and imminent hazard to life and property are the hallmarks of flash floods. On the other side, floods take a longer time to develop gradually, the **water level rises more slowly**, and they **often persist longer**. Both kinds of floods have the **potential to be disastrous**, but flash floods **are more deadly** because of **how unexpected and abrupt they are**.

How to face flash floods?

- **Remain Informed:** Pay attention to weather forecasts and keep yourself updated on local weather conditions. Register for emergency alerts and keep up with local news.
- **Flood-prone regions should be avoided:** Recognise the areas close to you that are vulnerable to flash flooding. Low-lying regions, valleys, and regions close to rivers, streams, or dams may fall under this category.
- **Make a strategy for emergencies:** Create a strategy for emergencies for you and your family. A meeting place, an evacuation route, and a mode of communication in case you become separated should all be included in this plan. Together with your family, run through the plan.
- **Prepare an emergency supply kit:** Fill the kit with non-perishable food, water, batteries, flashlights, a first aid kit, critical papers, and additional clothing. Keep this kit in a place that is simple to get to.
- **Avoid flood-prone areas:** Avoid driving through or walking through flooded areas when it is raining heavily or when a flash flood warning is in effect. Even small amounts of water might knock you off your feet or cause your car to stall. The best course of action is to wait for the floodwaters to subside inside.

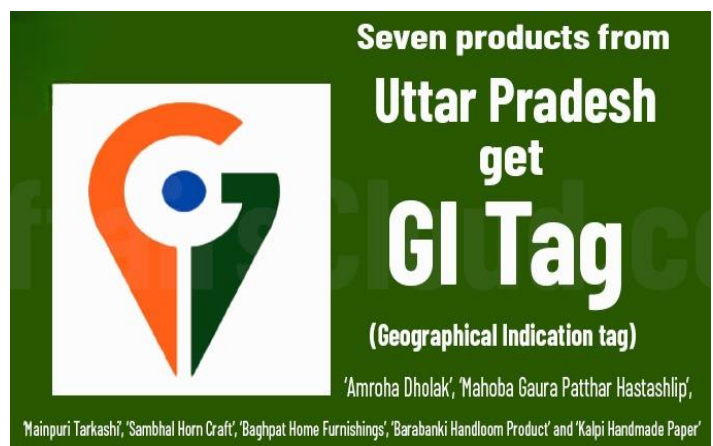
Seven Products From U.P. Get GI Tag

Context

Seven distinct goods from Uttar Pradesh now have trademarks attributable to the Geographical Indications Registry in Chennai. The goods that have received the Geographical Indication (GI) label include "Amroha Dholak," "Mahoba Gaura Patthar Hastashlip," "Mainpuri Tarkashi," "Sambhal Horn Craft," "Baghpat Home Furnishings," "Barabanki Handloom Product," and "Kalpi Handmade Paper."

What are GI tags?

- **Identification of Origin:** A GI's main purpose is to indicate that a product comes from a specific area of the world. This aids customers in differentiating products depending on their country of origin and helps them make wise purchases.
- **Link to Place of Origin:** A product's attributes, traits, or reputation should largely be attributed to its place of origin. The distinctive characteristics of the product are influenced by geographical aspects such as climate, soil, conventional wisdom, cultural practices, and others.
- **Protection and Regulation:** In many nations and regions, geographical indications are legally protected. Laws and regulations specify the requirements for a product to be recognised as a GI and offer safeguards against unauthorised use, false labelling, or product imitation. The Geographical Indications of **Goods (Registration and Protection) Act, 1999** aims to better safeguard geographical indications used in connection with commodities in India by allowing for their registration.
- **Product Categories:** Different product categories, such as agricultural commodities, food and drinks, handicrafts, textiles, and industrial goods, might use geographic indicators. Wines, cheeses, fruits, handicrafts, and textiles are a few examples.
- **Information for Consumers:** GIs give consumers useful details about the source and calibre of products. Customers can rely on the distinctive qualities, standing, and traditional knowledge connected to items from particular geographical areas.
- **Economic Benefits:** Geographical indications have a positive economic impact on local and regional economies. By giving local producers a market for their distinctive goods, they support local producers, maintain cultural heritage, and promote and protect traditional knowledge.
- **Cultural and environmental preservation:** GIs contribute to the preservation of regionally specific natural resources, traditional production techniques, and cultural practices. This stimulates biodiversity preservation and sustainable practices.
- **International Recognition:** Geographical indications may also be given worldwide status using conventions and treaties. Examples include the protection of GIs under



the Agreement on **Trade-Related Aspects of Intellectual Property Rights (TRIPS)** of the **World Trade Organisation**.

What Rights do GI tags provide?

- Geographical indication rights grant the ability to restrict the use of an indication by a third party that doesn't meet the relevant standards.
- Producers with the Darjeeling **geographical indication** can **prevent the use of "Darjeeling" for tea** that isn't grown in their gardens or produced according to specified standards.
- **Protected geographical indications** don't prevent others from using the same techniques outlined in the standards for that indication.
- Obtaining protection for a **geographical indication** often involves **acquiring rights over the corresponding sign or symbol**.

What are the types of products that GI tags are used for?

Geographical indications are typically used for **agricultural products, foodstuffs, wine and spirit drinks, handicrafts, and industrial products**.

Which products got a GI tag from UP recently?

- **Amroha Dholak:** An Amroha Dholak is a wooden musical instrument. Mango, jackfruit, and teakwood are the three types of wood most frequently used to make dholaks. Mango and sheesham trees are used to carve hollow blocks of various sizes and forms for the instrument. To produce the dholak, these blocks are then covered in animal skin, typically goatskin.
- **Mahoba Gaura Patthar Hastashlip:** Mahoba Gaura Patthar Hastashlip is a stone sculpture fashioned from a rare and soft stone known scientifically as the "Pyro Flight Stone." The stone is primarily found in the Mahoba region and is brilliant white. It is used to make a variety of craft products.
- **Mainpuri Tarkashi:** Brass wire inlay work on wood characterises this well-liked art form. It is a Mainpuri-born product that was formerly used to make the wooden sandals known as "khadaous." As a replacement for leather, which some houses deemed dirty, this type of painting gained popularity.
- **Sambhal Horncraft:** Sambhal Horncraft uses raw materials derived from animal carcasses. The handmade item is unique to the Sambhal region.
- **Baghpat Home Furnishings:** For years, Baghpat and Meerut have been known for their high-end, handcrafted home furnishings and flowing fabrics made of cotton yarn. These goods are handwoven on a loom using only cotton yarn.
- **Barabanki Handloom Product:** In Barabanki and the surrounding areas, there are 20,000 looms and about 50,000 weavers who work on the Barabanki Handloom Product. It is a representation of the local handloom weaving culture.
- **Kalpi Handmade Paper:** The history of Kalpi Handmade Paper begins in the 1940s with the introduction of the skill by Gandhian Munnalal "Khaddari." Locals assert that Kalpi's connection to papermaking dates back deeper in time. More than 5,000 artisans and about 200 businesses are involved in the handmade paper industry in Kalpi



INTERNATIONAL RELATIONS

India and Nepal sign pacts on energy and transport

Context:

Several energy and transportation agreements were negotiated between India and Nepal, including one that allowed Nepal to export hydropower to Bangladesh via Indian soil.

Indo-Nepal Relation:

- Geographical proximity: India and Nepal are significant neighbours because they share a 1,750-kilometer-long border.
- Historical and cultural relations: India and Nepal have long-standing, enduring historical and cultural ties. Particularly with Buddhism and Hinduism, these nations have linguistic and theological similarities.
- Treaty of Peace and Friendship: The 1950 Treaty of Peace and Friendship, which regulates India and Nepal's bilateral ties, is a key document. It highlights the deep ties of friendship and collaboration between the two countries.
- Cooperation on the economy: India is Nepal's top trading partner and the main source of FDI. There is a significant amount of trade between the two nations, spanning many different goods and services.
- Development Assistance: India has been offering Nepal development support in some areas, including infrastructure, education, health, and agriculture. These initiatives are meant to aid Nepal's socioeconomic growth.
- Open borders and intercultural exchanges: Citizens of India and Nepal can travel without a visa thanks to the countries' open border policies. This makes it easier for people to interact widely, exchange cultures, and go on vacation.
- Security collaboration: India and Nepal have a history of working together to combat terrorism and cross-border crime. This cooperation includes intelligence sharing.
- hydroelectric and water resources: India has helped Nepal construct its hydroelectric plants. Nepal has abundant water resources. Cooperation in this area may increase Nepal's ability to produce energy and meet its own energy needs.
- Border disputes: On occasion, India and Nepal have run into problems along their shared border, particularly when it comes to defining it. In the past, these disagreements have raised tensions, but they have typically been settled via discussion and negotiation.
- Cultural Exchange: Exchanges in the arts and sciences are encouraged by India and Nepal to deepen intercultural relations. Scholarships and other financial aid are offered by Indian educational institutions to Nepalese students who wish to study there.



Points to Ponder:

- **Increasing Cooperation:** India's Prime Minister Narendra Modi received Nepal's Prachanda PM Pushpa Kamal Dahal on his four-day visit. The importance of developing close, cross-border ties between India and Nepal was emphasised by Modi.
- **Transit Agreement:** The presidents agreed on a transit agreement, which gives Nepal's citizens access to India's inland waterways. The purpose of this agreement is to make trade and travel between the two nations easier.
- **Power Trade Agreement:** India and Nepal have inked a long-term Power Trade Agreement to purchase 10,000 MW of electricity from Nepal over the next few years. The emphasis on energy cooperation between the two countries is highlighted by this agreement.
- **Infrastructure Development:** Different infrastructure projects were addressed by the leaders. From Siliguri in India to Jhapa in eastern Nepal, a new pipeline will be built, improving connectivity and energy transmission. Additionally, contracts for the construction of the Lower Arun Hydroelectric Project and the Phukot Karnali Hydroelectric Project were inked.
- **Project with Multiple Uses at Pancheshwar:** The two prime ministers pledged to make real, time-bound progress on the project with Multiple Uses at Pancheshwar. The goal of this initiative is to improve bilateral collaboration in the areas of hydropower production and irrigation.
- **Launching of Projects:** The Gorakhpur-Bhutwal transportation Line, which will simplify the transportation of electricity between the two nations, was jointly inaugurated by the presidents. Additionally, they opened integrated checkpoints (ICPs) in some areas, including Rupaidiha on the Indian side and Nepalgunj in Nepal to streamline trade and economy.
- **Revision of the Transit Treaty:** Nepal now has access to India's inland waterways thanks to the revision of the Transit Treaty that was signed. This accord is considered a "once in a generation" pact and is viewed as a significant milestone.
 - Prime Minister Dahal expressed gratitude to India for its commitment to making it easier for Nepal to export hydropower to Bangladesh through Indian territory. The power transmission of up to 50 megawatts is about to start.
 - Prime Minister Modi emphasised the **significant and long-standing cultural and religious ties** that exist between India and Nepal. He emphasised the value of maintaining and strengthening these ties between the two countries.

Stabilise The Line Of Actual Control

Context:

The media frequently reports on violations and confrontations between Indian and Chinese forces along the LAC, even though both nations spend a significant amount of money on improving their military infrastructure and defensive readiness as they station personnel, supplies, and tools nearby.

Indo-China Relationship

➤ Historical Background:

- Cultural, economic, and diplomatic exchanges between India and China go back many centuries.
- However, boundary disputes and geopolitical rivalries have characterised the Indo-China relationship in the modern century.

➤ Border Disputes:

- The unsolved border dispute between India and China is the main source of animosity between the two countries. A 3,488-kilometer-long disputed border between the two nations is known as the Line of Actual Control (LAC).
- 1962 saw a brief but violent military war over the border that was won by China and gave them more territory in the Aksai Chin region.
- Since then, there have been several border clashes and standoffs between the two nations, most notably the ones in the Doklam standoff in 2017 and the Galwan Valley conflict in 2020, which left people dead on both sides.

➤ Trade and commercial Relations:

- India and China have strong commercial relations notwithstanding their border disputes. With billions of dollars in annual bilateral commerce, China is India's largest trading partner.
- Trade imbalances and worries about Chinese products being dumped on the Indian market, however, have remained chronic problems.
- The Indian government has taken action to allay these worries, including placing tariffs and limitations on some imports from China.

➤ Geopolitical rivalries:

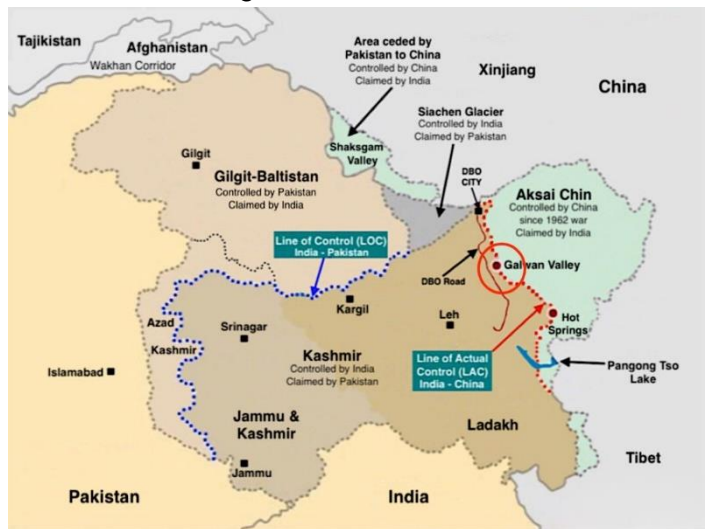
- As two of Asia's key regional powers, India and China are increasingly competing with one another for influence.
- India is concerned about China's ambitious Belt and Road Initiative (BRI) and its strategic investments in nearby nations since some of these initiatives are perceived as intruding on India's area of influence.
- India has also taken issue with China's close ties to Pakistan, particularly its backing for Pakistan-occupied Kashmir.

➤ **Diplomatic conversations:**

- The two nations have participated in several diplomatic conversations and processes to resolve their differences and foster better relations, such as the meetings between the Special Representatives on the boundary issue.
- However, the border conflict has not been resolved quickly, and tensions between the two countries continue to flare up sometimes.

Need for stability

- **Rising Tensions:** The conflict in the Galwan Valley in 2020 caused India and China to experience rising tensions, which resulted in large military mobilisations and escalating rhetoric on both sides.
- **Unstable and Dangerous Situation:** Indicating the gravity of the situation, India's External Affairs Minister remarked that the situation along the Line of Actual Control (LAC) in Eastern Ladakh continues to be highly unstable and dangerous.



- **Potential for confrontation:** There are worries that the current scenario, which is marked by heightened militarization and combative rhetoric, could turn into a major confrontation that would destabilise the area and have negative regional and global political and economic repercussions.
- **Border problem complexity:** Due to conflicting territory claims, the border issue between China and India is complicated. India rejects Chinese claims made regarding the entirety of Arunachal Pradesh and the occupied Aksai Chin. These assertions are extremely engrained in both countries' narratives and are not likely to be readily changed.
- **Concessions:** Concessions are impossible for the current political regimes in China and India to make to promote a settlement of their border disputes that would be acceptable to both parties. Consequently, a long-term resolution to the border problem could not be possible shortly.
- **Stabilisation in the short term:** Due to the complexity of the situation, it is advised that both parties concentrate on actions that will stabilise the LAC and lessen the likelihood of war shortly. This strategy entails taking practical and efficient action to stop errors or unintentional escalations.
- **Peaceful Accords:** The 1993 and 1996 accords on upholding peace and tranquilly along the LAC are just two examples of existing agreements that both China and India should abide by. The region can become more stable if these agreements are respected and upheld.

Way forward

- **Converting the LAC into a Line of Control (LC):** It entails considering the LAC as a de facto border without regard for any potential border claims. This would lessen

the need for troops to advance, but it might also bolster contested territorial claims. It would take maturity and collaboration on all sides for implementation to take place, yet settling on a border claim can be a difficult and delicate political matter.

- **Restricted access to N entry zones:** Allowing mutual patrolling or designating contested areas as no access zones: Designating disputed areas as no entry zones could prevent further escalation, but it could also consolidate opposing claims. Maintaining the status quo while allowing both parties to police these areas at mutually agreed-upon intervals may not resolve the underlying issues.
- **Joint patrolling:** Joint patrolling and more efforts to foster confidence Together, the parties can create more trust by jointly patrolling disputed regions and stepping up confidence-building initiatives. However, putting such measures into action would require a great deal of confidence and cooperation, which can be difficult when tensions are at their highest.
- **Strengthening existing engagement mechanisms:** Enhancing the efficiency of current engagement mechanisms, like the Border Personnel Meetings (BPM) and the Working Mechanism for Consultation and Coordination on India-China Border Affairs (WMCC), can offer forums for discussion and conflict resolution. To quickly address local concerns, it is crucial to make sure that these methods are supported by all sides and have enough authority.

Why is there trouble in Kosovo again?

Context

- On May 29, clashes broke out between the NATO-led Kosovo Force (KFor) and Serb protesters in North Kosovo, injuring roughly 30 NATO soldiers and 50 Serbs.
- Serbia and Kosovo are both located in the Balkans, an area of Europe that includes nations that were formerly a part of the Republic of Yugoslavia. In 2008, Kosovo, a former Serbian region, unilaterally proclaimed its independence. Serbia, meanwhile, rejects Kosovo's claim to sovereignty.
- The present leader of Kosovo and the West are concerned about Serbia's tight political links to President Vladimir Putin, who has continued to support the Serbian claim, as well as about Serbia's strong historical and military ties with Moscow.

Historical Significance:

- Kosovo has important historical ramifications for both Serbs and Albanians.
- Kosovo is regarded as Serbia's "heartland," as it contains significant cultural and religious landmarks for the Serbian Orthodox Christian identity.
- For the Serbian national identity, the Battle of Kosovo in 1389, where Serbia surrendered regional dominance to the Ottoman Empire, is emblematic.

Suppression and Autonomy:

- In the 20th century, Serbia became the centre of the Socialist Federal Republic of Yugoslavia, which included Kosovo as an autonomous province.
- Slobodan Milosevic, the leader of Serbia, reduced Kosovo's autonomy in 1989, sparking demonstrations and instability among the ethnic Albanian people.

Kosovo Liberation Army (KLA)

- The Kosovo Liberation Army (KLA), which was primarily made up of ethnic Albanians, first appeared in the 1990s and engaged in armed resistance to Serbian forces.
- The KLA battled Serbian repression while working to win Kosovo's independence.
- A crackdown by the Serbian military in response led to a major loss of life and a humanitarian crisis.

Intervention by NATO:

- In 1999, NATO began a military operation in reaction to the growing violence and atrocities committed by Serbian forces.
- NATO launched an air campaign to stop Serbian aggression and defend the populace.



- The result of the intervention was the removal of Serbian soldiers from Kosovo and the installation of a UN-run government.

Independence Declaration:

- 2008 saw the unilateral declaration of independence by Kosovo from Serbia.
- Many nations, including the United States and some members of the European Union, supported this decision.
- But Serbia disapproves of Kosovo's independence and regards it as a natural extension of its own country.

Ethnic divisions:

- The bulk of the people of Kosovo is ethnic Albanian, although a sizable portion of the population in the northern half of the country is ethnic Serbian.
- Serbs in Kosovo, especially those in the north, do not acknowledge the legitimacy of the Kosovo government and continue to have strong ties to Serbia.
- As a result, there are difficulties in the political, social, and administrative spheres, and there are conflicts and tensions among the many ethnic groups.

EU-Facilitated Dialogue:

- Since 2011, the European Union has been directing a conversation between Serbia and Kosovo.
- The dialogue's objectives are to normalise relations between the parties and settle unresolved concerns.
- Some accords, like the 2013 Brussels Agreement, which addressed real-world concerns and sought to enhance cooperation, have been reached.
- However, it has been difficult to fully execute these agreements, and development has slowed recently.

A Pragmatic Approach For Better India-Nepal Ties

Context:

The Prime Ministers of Nepal and India have demonstrated that a pragmatic approach and mutual sensitivity can re-energise bilateral relations despite enormous obstacles to Nepal's democracy, governance, and stability as well as what appear to be unresolvable bilateral irritants.

Indo-Nepal Relation

- **Historical Background:** India and Nepal have a long-standing, close-knit relationship. Nepal remained independent and sovereign and was never formally colonised by any outside force. India and Nepal have close cultural, religious, and interpersonal links and a shared open border. An important turning point in their relationship, which serves as the foundation of their bilateral relationship, was the signing of the Treaty of Peace and Friendship in 1950.
- **Economic Cooperation:** India is Nepal's main economic partner and a significant source of investment and development aid. The South Asian Free Trade Area (SAFTA) and the two nations have a bilateral trade agreement. Commodities like gasoline, machinery, electronics, autos, agricultural items, and more are traded between India and Nepal. In addition, India has helped Nepal improve its infrastructure, including its roads, bridges, and hydroelectric projects.
- **Cultural and People-to-People Bonds:** Religious and cultural relations between India and Nepal are quite strong. Both nations have a large Hindu population, and there are many religious and cultural interactions between them. For purposes of employment, education, tourism, and religious travel, people from the two nations frequently travel to one another.
- **Challenges and tensions:** Despite their generally cordial relations, India and Nepal have occasionally encountered difficulties and tensions. Border disputes, transit rights, and disagreements over Nepal's new constitution have all come up in recent years. These problems have occasionally caused tension in the partnership. However, both nations have constantly emphasised the value of communication and amicable dispute settlement.

Points to Ponder:

- **Challenges to Nepal's democracy and government:** The passage admits the nation's democracy, government, and stability confront formidable obstacles. These difficulties can make the bilateral relationship with India more difficult.
- **A pragmatic approach and mutual sensitivity:** These are highlighted in the paragraph as ways to rekindle bilateral ties



between Nepal and India. Both nations are urged to handle their problems realistically and take into account one another's worries.

- **The first bilateral visit:** Prime Minister Prachanda's trip to India is noteworthy because it demonstrates his readiness to interact with India despite being in a precarious situation at home. It demonstrates political bravery and a commitment to grasping chances to create a better future.
- **Bilateral irritant management:** Prachanda deserves praise for his pragmatic approach to this problem. He decided to concentrate on finding answers and looking into prospects for cooperation rather than giving in to political pressures or requests to adopt a harsh stance.
- **Indian Prime Minister's Sensitivity:** The Indian Prime Minister received praise for his sensitivity during Prachanda's visit. He told Prachanda that disagreements over the border issue would be settled amicably without putting too much weight on any one side's official account.
- **Priorities for economic integration:** The passage emphasises how crucial it is for India and Nepal to integrate economically. The expansion of infrastructure, river transit, creative tourism routes, and improved connectivity are top goals. Hydropower projects to provide energy to Bangladesh and India are also high on the list.
- **Power sector collaboration:** There is a new level of power sector collaboration, which includes the transmission route across India from Nepal to Bangladesh. Within 10 years, the goal is to double the amount of power exported from Nepal to India to 10,000 MW.
- **Enhancing digital financial connectivity:** The text cites the signing of an MoU between the Nepal Clearing House Ltd. and the National Payments Corporation of India to allow cross-border digital payments. In addition, India pledged to supply Nepal with satellite services for a variety of uses, fostering regional collaboration in the space industry.
- **Depoliticizing collaboration and combating corruption:** The passage emphasises how important it is for Nepal to depoliticize its relations with India, especially when it comes to cooperation on water resources. It also urges Nepal to fight rampant corruption and improve the country's democracy and administration.
- **Impression and ownership:** According to the passage, India needs to address Nepal's impression that its foreign policy is no longer a top priority. It is recommended that parties from all sides of Nepal's political spectrum receive recognition, equity, and ownership for significant advancements rather than just the current administration.
- **Potential advantages for Nepal:** Despite criticism from Nepal's opposition parties, the text implies that India may go above and beyond to satisfy Nepal's requirements and aspirations of development and collaboration are consistently prioritised. It emphasises the likelihood that Nepal might gain from Indian assistance in several sectors and experience increased prosperity.

Musings on the frictions in India-Canada ties

Context :

On June 4 in Brampton, Canada, there was a pro-Khalistani demonstration. At one point, two troops pointed their rifles at a woman wearing a white sari who was bloodied. "Revenge of attack on Shri Darbar Sahib" was written on the board behind her. The phrase "Never forget 1984" was written on the side of the float. The individuals in the tableau were former Indian Prime Minister Indira Gandhi and her killers.

Background on Khalistan Issue

- The Khalistan issue is a Sikh separatist movement that seeks to establish an independent state in the Punjab region called Khalistan.
- Its roots can be seen in India's independence and subsequent Partition, which resulted in communal violence and the relocation of millions of people, including Sikhs.
- The Punjabi Suba Movement and the Anandpur Sahib Resolution, which requested greater autonomy for Punjab, fueled the movement.
- Under the leadership of Jarnail Singh Bhindranwale, who took up residence in the Golden Temple and founded the Dharam Yudh Morcha, the movement grew violent in the 1980s.
- In 1984, the Indian government began "Operation Blue Star" to clear out terrorists from the Golden Temple and bring Bhindranwale to justice. The raid caused significant damage to the Golden Temple and resulted in the deaths of several terrorists and bystanders.
- Following Operation Blue Star, there was communal violence and a long-running insurgency in Punjab that lasted until 1995.
- The movement failed to achieve its goal for a variety of reasons, including harsh police crackdowns, factional infighting, and Sikh disillusionment.
- Today, the movement is fuelled by vote bank politics, socioeconomic issues including unemployment and drug misuse in Punjab, and non-state actors' backing.
- The movement continues to elicit sympathy and support from segments of the Sikh people, particularly the Sikh diaspora.



Pro-Khalistani Parade in Brampton, Canada:

- Canada's Brampton had a pro-Khalistani march on June 4, which featured a float depicting a gory figure mimicking the late Indian Prime Minister Indira Gandhi and her killers.

- The float displayed the slogan "Revenge of attack on Shri Darbar Sahib" and the phrase "Never forget 1984," alluding to the anti-Sikh riots that took place in India in that year.

Indian External Affairs Minister's Reaction:

- On June 8, during a press conference, External Affairs Minister S. Jaishankar impliedly but not outright criticised the offensive float.
- He emphasised the harm done to India-Canada relations by Canada's acceptance of separatists, extremists, and proponents of violence.

Glorification of Indira Gandhi's Assassination:

- The author points out that while Jaishankar did not specifically mention Indira Gandhi in his speech, the Canadian High Commissioner to India denounced the incident and did so.
- The author emphasises how important it is to address the exaltation of retaliation for the murder of an Indian prime minister as an issue of national dignity.

Indian Diaspora's Impact on Canadian Politics:

- The Indian diaspora, which includes Sikhs, has a significant impact on Canadian politics and public life.
- The influence of several ethnic Indians in Prime Minister Justin Trudeau's cabinet is attributed to "vote bank" politics.
- The author notes that Indian politicians like Rahul Gandhi and Narendra Modi use diaspora politics to seek support and capitalise on their notoriety.

Canadian Politics and Relationship with India:

- The author points out that Canadian Prime Minister Justin Trudeau depends on the New Democratic Party (NDP) to keep his administration in power and that Jagmeet Singh, the leader of the NDP, is a supporter of Khalistan.
- India rejected Singh's plea for Trudeau to get involved in events connected to the Punjab.
- Despite obstacles in the two countries' relations, cooperation persists in several sectors, including the Cannabis medicinal initiative.

HAP to take AI governance global

Context :

- On May 19–21, 2023, Japan hosted the G-7 Summit, which took place in Hiroshima. To control artificial intelligence, the Hiroshima AI Process (HAP) was started by the leaders.
- The G-7 nations might advance towards a diverse regulatory framework based on shared norms, principles, and guiding values with the aid of the HAP.
- It can create a unified policy for the G-7 nations that permits the 'fair use' of copyrighted works in datasets for machine learning.

What is the Hiroshima AI process?

- **G7 Recognition:** The G-7 leaders recognised the generative artificial intelligence (AI)'s rising influence across nations and industries. They emphasised the importance of evaluating the opportunities and difficulties brought on by generative AI.
- **Inclusive AI Governance:** The G-7 reaffirmed their commitment to working with other countries to further discussions on inclusive AI governance at the global level. They understood the significance of developing a shared vision and objective for reliable AI in keeping with common democratic principles.
- **Collaboration with International Organisations:** The G-7 urged international organisations like the Global Partnership on AI (GPAI) and the Organisation for Economic Co-operation and Development (OECD) to carry out research and practical projects on the effects of legislative changes in the area of generative AI.
- **Establishment of the HAP:** The G-7 charged pertinent ministries with creating the Hiroshima AI process through a G-7 working group. The HAP intends to foster inclusive debates on generative AI with experts and stakeholders from G-7 nations.
- **Discussion Points:** The HAP is anticipated to address several important generative AI-related topics. The protection of intellectual property rights (including copyrights), the promotion of transparency in AI systems, the handling of outside information manipulation (such as disinformation), and the responsible use of generative AI technologies are some of these.
- **Collaboration and cooperation:** To take advantage of the OECD's and GPAI's resources and expertise in examining the problems and potential remedies connected to generative AI, the HAP will work in partnership with international organisations.
- **Time Line:** By December 2023, the HAP is expected to have finished its deliberations. The first meeting, which took place on May 30, served as the beginning of the process.



- **Organisational Information:** Although the information presented does not specifically address the HAP's organisational structure, it is anticipated that the HAP will function through a G-7 working group. The working group's precise membership and organisational structure, as well as the methods for interacting with pertinent stakeholders, are not clearly stated.

Why is the process notable and What does the process entail?

- **Alignment with Values:** The HAP emphasises the importance of aligning AI development and uses with values like liberty, democracy, and human rights. This guarantees that AI technologies be applied in a way that promotes core values and respects the rights of individuals.
- **Guidelines for Regulation:** The HAP acknowledges the need for a set of precise guidelines to direct AI regulation. It emphasises fairness, responsibility, accountability, and safety as fundamental values to take into account while controlling AI. These guidelines offer a foundation for accountable and moral AI development.
- **Multi-Stakeholder Approach:** This process recognises the value of involving a variety of stakeholders in the development of AI regulation. It pushes away from a state-centric viewpoint and encourages collaboration amongst representatives of various industries, civil society, academia, business, and international organisations. This multi-stakeholder participation guarantees that many viewpoints are taken into account and promotes transparency and justice in decision-making.
- **Addressing Divergence:** The HAP is aware of the differences in AI regulation and risk management practises within the G-7 nations. Different cultural, legal, and economic settings may cause this disparity. In the process, common ground is sought while allowing for some regulatory divergence based on prevailing norms, principles, and values. The process acknowledges the difficulty in resolving these disparities.
- **Harmonisation and Discord:** The HAP must strike a balance between promoting harmony and resolving conflict among the G-7 nations. It acknowledges that perfect agreement may not always be possible while attempting to create a shared understanding of important regulatory concerns. The procedure encourages open communication and facilitates debates that result in practical solutions to prevent conflict.
- **Potential Results:** The HAP procedure could result in a variety of results. It might lead to the adoption of different laws by the G-7 nations based on common standards, values, and norms, enabling contextualised approaches to AI governance. As an alternative, the process could have trouble bringing opposing points of view together, leaving no real answers. Finally, due to the complexity of the subject matter and the variety of perspectives involved, the outcome may involve a combination of convergence on certain problems and continuous disagreement on others.

What is the vision?

- **The vision of Trustworthy AI:** The G7 nations share a unified vision for ensuring the development and implementation of trustworthy AI systems. Systems that are secure, dependable, and morally upstanding are referred to as trustworthy AI, taking

into account elements like responsibility, transparency, fairness, privacy, and security.

- **Variation in Approaches:** The G7 acknowledges that among its members, there may be differences in the particular strategies and tools of policy employed to achieve reliable AI. This indicates that the G7 countries will not be harmonising their AI laws.
- **Importance of Global Debates:** The G7 highlights the importance of global debates on AI governance. This shows that to address global concerns about the creation and application of AI, there is a need for cooperation and involvement with other nations and stakeholders.
- **Framework for Interoperable AI Governance:** The G7 recognises the significance of creating a framework for Interoperable AI Governance. By facilitating coordination and cooperation between nations, this framework attempts to enable compatibility and harmonisation of AI standards and policies across various jurisdictions.
- **Regarding Other Country-Groups:** The High-Level AI Principles (HAP) of the G7 and the creation of the AI governance framework acknowledge the need to address issues brought up by other country-groups. This implies that the G7 plans to take into account and incorporate viewpoints from groups and nations that are not members of the G7, such as the OECD.
- **Global Contention:** Global Conflict The creation of the HAP demonstrates how AI governance has emerged as a worldwide concern and is likely to continue to be a contentious topic in the future. As AI technology develops and its influence grows, many nations and stakeholders may have varying interests in and viewpoints on AI governance, resulting in continuing discussions and debates on international AI policies.
- **Influence of Non-G7 Nations:** By starting their initiatives or procedures akin to the HAP, nations outside the G7 may also attempt to influence global AI governance. This shows that other governments are actively involved in creating international AI policies and that AI governance is not solely a responsibility of the G7 countries.

The Next Phase Of U.S.-India Defence Ties

Context :

The visit of the American defence secretary earlier in June helped to set the stage for the Indian prime minister's trip to the United States the following week, which may result in some significant announcements.

India-US relations



- **Strategic Partnership:** Based on shared democratic ideals, interests, and respect, India and the United States have a strategic partnership. Over time, this connection has been stronger, especially since the early 2000s.
- **Bilateral trade:** Trade on a bilateral basis has increased significantly between the United States and India. One of India's biggest economic partners is the United States, and both nations have been seeking to increase their exchange of goods and services. Trade imbalances and problems with

market access, however, have been of concern.

- **Defence and Security Cooperation:** The India-US relationship now rests mostly on defence cooperation. Both nations participate in collaborative military drills, transfers of defence technology, and information-sharing programmes. Defence connections have been strengthened further with the signing of the Major Defence Partner (MDP) designation in 2016.
- **Counterterrorism:** India and the US work closely together to fight terrorism. They cooperate in counterterrorism activities, share intelligence, and lend each other assistance in the fight against extremist ideology. In light of concerns about international terrorism, this cooperation has become more prominent.
- **Cooperation in the Indo-Pacific:** The United States and India have been collaborating to advance a free, open, and inclusive Indo-Pacific area. India, the United States, Japan, and Australia make up the Quad, which has garnered notoriety as a forum for collaboration on regional security, infrastructure growth, and economic integration.
- **People-to-People Ties:** There has been considerable growth in the cultural and educational contacts between the United States and India, which has led to improved intercultural understanding and stronger interpersonal ties. The American Indian diaspora has significantly contributed to the improvement of relations between the two countries.
- **Climate Change and Clean Energy:** The United States and India have worked together to combat climate change and advance clean energy. The framework for

coordinated initiatives to cut greenhouse gas emissions and enhance sustainable development has been made possible by the Paris Agreement on climate change.

- **Challenges and Areas of Cooperation:** While India and the United States have achieved considerable strides in their relationship, there are still issues to be resolved, such as trade disagreements, intellectual property rights, and regional geopolitical factors. However, both nations keep trying to resolve these problems through discussion and diplomacy.

Points to Ponder:

- **Strengthening Defence Industrial Cooperation :**
 - Defence Secretary Lloyd Austin of the United States paid a visit to India to strengthen their important defence alliance and expand collaboration in key areas.
 - During the visit, a deal was reached on a roadmap for defence industry collaboration.
 - The road map aims to increase technological cooperation between the two nations to increase defence manufacture in India.
- **Initiatives for co-development and co-production:**
 - The road map aims to hasten measures for co-development and co-production in the defence industry.
 - The goal of this project is to strengthen ties between India and the United States defence industries.
 - Both nations may strengthen their defence capabilities and their partnership by working together on defence projects.
- **Indus-X Initiative:**
 - The Indus-X initiative, which intends to give defence innovation interaction between the United States and India fresh momentum, was also launched during the visit.
 - The bilateral Space Situational Awareness agreement, which was signed in 2022, is expanded upon by Indus-X.
 - The programme promises to improve communication and collaboration in the space industry, particularly in sectors that are relevant to defence.
- **Foundational Agreements and Major Defence Partner Status:**
 - Closer defence cooperation is possible thanks to India's "Major Defence Partner" (MDP) designation and the four founding agreements negotiated with the United States.
 - The MDP status makes it possible to exchange critical technologies without India having to officially ally itself.
 - These agreements have shown to be efficient safeguards against collaboration being hampered by formal challenges or structural disparities.
- **Focus on the Indo-Pacific:**
 - The United States views its defence cooperation with India as the cornerstone of its efforts in the Indo-Pacific.

- Both nations have similar evaluations of the threat, with China being cited as a major obstacle.
 - China's naval presence is anticipated to grow in the Indian and Pacific Oceans as the area becomes more volatile.
- **The Rationale for Broader Industrial Cooperation:**
- The level of American investments already made in India serves as the foundation for larger industrial collaboration between Indian and American businesses in the defence industry
 - The American government has publicly supported its corporations' involvement in India's efforts to modernise its military.
 - The formation of joint ventures expanded American involvement in Indian defence manufacturing, and the removal of roadblocks to co-development and co-production are all possible outcomes of this collaboration.
- **Defence Technology and Trade Initiative (DTTI):**
- Despite prior difficulties, recent initiatives to encourage co-production and co-development are projected to give the DTTI more momentum.
 - The iCET agreement's enhancement of the India-U.S. strategic cooperation has given the DTTI a distinct boost.
 - The goal of the CET agreement is to improve defence collaboration in the areas of critical and emerging technology.
- **Defence cooperation and upcoming state visits:**
- Setting the stage for Prime Minister Narendra Modi's official state visit to the United States on June 22, the U.S. Defence Secretary's visit is important.
 - During this visit, significant developments regarding defence cooperation are anticipated.
 - The potential for a powerful alliance between two major democracies is shown in the expanding defence relationship between the United States and India.

Bolstering India-U.S. Relations: Opportunities, Reforms, and Collaborative Pathways

Context:

The growing importance of the relationship between India and the United States, highlights their mutual interests and the potential benefits of their partnership. It emphasizes the need for further collaboration between the two countries and suggests specific areas where India could benefit from U.S. assistance.

Relevance:

- General Studies Paper 2: International Relations
- General Studies Paper 3: Indian Economy: India's economic growth, infrastructure development, fiscal management.

Mains Questions:

Discuss the success of recent infrastructure initiatives and their potential impact on the country's progress. How can collaborations with foreign partners, contribute to India's infrastructure expansion and modernization? (Word limit: 250 words)

Prelims:

- India's population projections and their impact on various sectors.
- India's trade deficit and its implications.
- Digitalization initiatives.
- Environmental Tax

Dimensions of the Article:

- India-U.S. Strategic Partnership
- India's Economic Growth and Infrastructure Development
- Reforms and Initiatives
- India's Challenges and Potential Areas for Collaboration
- Importance of India-U.S. Collaboration

I. India-U.S. Strategic Partnership:

- The article emphasizes the growing importance of the strategic partnership between India and the United States.
- According to PricewaterhouseCoopers, it is estimated that India will reach \$25 trillion GDP by 2047, 100 years after Independence.

- It highlights their mutual interests and the benefits derived from their collaboration which states the personal outreach of the Indian Prime Minister and the effective articulation of India's position by the External Affairs Minister on the global stage.

II. India's Economic Growth and Infrastructure Development:



supporting these long-gestation projects.

- India's remarkable economic growth, highlighting the timeline of reaching different GDP milestones.
- India took 63 years to reach \$1 trillion in GDP, seven years to hit \$2 trillion, and three years to hit \$3 trillion.
- It also mentions the increasing mobile data consumption, internet coverage, and the positive impact on prosperity across the country. Furthermore, it acknowledges the success of infrastructure development and the role of fiscal prudence in

III. Reforms and Initiatives:

- The positive outcomes of listing projects on PRAGATI, which expedites government orders and clearances, leading to streamlined infrastructure development.
- The role of **Geospatial Information Systems** in preventing unnecessary road and forest destruction is also mentioned.
- Additionally, it discusses the reforms in commercial coal mining, oil exploration contracts, and the Public Financial Management System, which enhance transparency, accountability, and efficiency in government financial spending.

IV. India's Challenges and Potential Areas for Collaboration:

- The need for digitalization.
- Agricultural reforms.
- Supply chain capability building.
- Manufacturing growth, and
- Judicial reforms.
- The collaboration with the United States, leveraging their capital and technology, can be beneficial in addressing these challenges and achieving modernization in defence technology.

V. Importance of India-U.S. Collaboration:

- It helps India to move beyond non-alignment principles to measure each situation based on merit and national interest.
- It acknowledges the positive perception of India by both Republicans and Democrats and encourages further steps towards becoming allies.

- An easy win in the form of facilitating visa formalities in Indian cities, which would enhance travel convenience for citizens.

Conclusion:

The article reiterates the importance of India-U.S. collaboration and the potential benefits it can bring to both countries. It emphasizes the need for India to leverage U.S. assistance in various sectors to achieve its developmental goals. By expanding diplomatic efforts and enhancing bilateral cooperation, India can strengthen its global standing and foster a closer relationship with the United States

A welcome step: The U.S. and China must continue to keep diplomatic channels open

Context:

The editorial discusses the recent visit of U.S. Secretary of State Antony Blinken to Beijing, marking the first visit by a U.S. Secretary of State to China since 2018. The main focus of the visit was on stabilizing the U.S.-China relationship, as both leaders expressed the need for stability and avoiding conflict. The editorial highlights the importance of this development and its implications for India, given its deepening relationship with the United States.

Relevance:

- GS-02 (International Relations, Indian Foreign Policy)
- GS-03 (Security Challenges and Their Management)

Mains Questions:

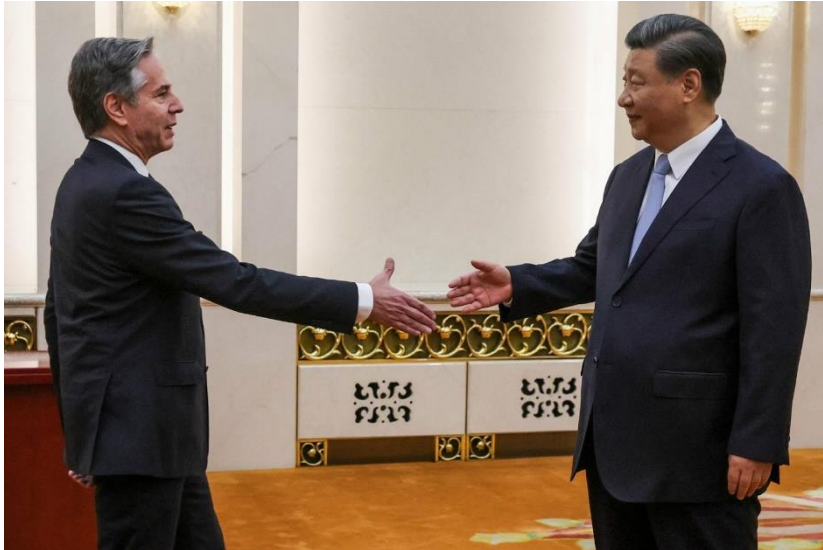
Discuss the challenges and opportunities in India's relationship with the United States and China, considering the need for stability in the region. (250 words)

Dimensions of the Article:

- Importance of U.S.-China Stabilization Efforts.
- Implications for India.
- India's Stand.
- How it affects India.

Importance of U.S.-China Stabilization Efforts:

- Signaling Progress: The meeting between Antony Blinken and Xi Jinping signifies progress in the U.S.-China relationship, despite ongoing differences on various issues.



- Avoiding Conflict: Both leaders emphasized the need for stability and expressed their concerns about conflict or confrontation, which is crucial for regional and global stability.
- Economic and Security Interdependencies: The economic and security ties between nations in the region make stability in the U.S.-China relationship essential for maintaining peace and cooperation.

Implications for India:

- Deepening India-U.S. Relationship: The India-U.S. relationship has evolved and expanded beyond concerns about China, with increased cooperation in defence and technology domains.
- Alleviating Unease: Unlike in the past, India no longer feels unease when high-level visits occur between Washington and Beijing, reflecting the maturing relationship between India and the United States.
- Balancing Act: India needs to maintain a delicate balance between its strategic ties with the United States and its economic engagement with China.

India's Stand:

- Supporting Stability: India welcomes the U.S.-China efforts towards stability as it aligns with its interests in maintaining peace and avoiding conflict in the region.
- Expanding Cooperation: Prime Minister Narendra Modi's state visit to the United States is expected to strengthen defence and technology cooperation, further solidifying the India-U.S. relationship.

How it affects India:

- Economic Implications: Stable U.S.-China relations are beneficial for India's economic engagements with both countries, given its significant trade relations with China and growing strategic ties with the United States.
- Regional Security: Stability in the region contributes to India's security interests, particularly considering the border tensions with China and the evolving security dynamics in the Indo-Pacific region.

- Geopolitical Influence: India's alignment with the United States and its emphasis on a rules-based international order can be reinforced by stability in the U.S.-China relationship, enabling India to advance its regional and global interests.

Conclusion:

- The visit of Antony Blinken to Beijing and the agreement between the United States and China on the need for stability in their relationship is a welcome step.
- This development holds significance for India, which has a growing relationship with the United States and significant economic linkages with China.
- India supports stability in the region and aims to leverage its strategic ties with the United States while maintaining its economic engagement with China.
- The evolving dynamics between these major powers will continue to shape India's foreign policy and have implications for its economic and security interests.

India-Nepal Relations and the Path to Rebuilding Trust

Context:

The recent official visit of Nepal Prime Minister Pushpa Kamal Dahal 'Prachanda' to India and its significance in the context of India-Nepal relations highlight the positive outcomes of the visit and the avoidance of controversial issues, focusing on the economic ties between the two countries.

Relevance:

GS-02 (International relations, Governance)

Mains Questions:

- Examine the dimensions and challenges in enhancing connectivity between India and Nepal, and discuss its implications for trade, tourism, and cultural exchanges. (250 words)
- Discuss the significance of hydropower cooperation between India and Nepal in the context of regional energy security and economic development. (150 words)

Major Issues Related to India-Nepal Relations?

- India-Nepal Treaty of Peace and Friendship: The 1950 treaty between India and Nepal has been a longstanding issue. Nepal claims that the treaty was imposed on them and seeks its review and update. The treaty grants Nepali nationals equal treatment in terms of employment in India, except for certain services. This issue has been a point of contention and a demand for its revision has been raised by Nepal.

- **Hydropower Cooperation:** There has been progress in hydropower cooperation between India and Nepal. Nepal has a significant hydropower potential of 50,000 MW, but its installed capacity was only 1,200 MW a decade ago. Efforts have been made to increase capacity, and Nepal now has an installed capacity of 2,200 MW. Both countries have finalized long-term power trade agreements to export 10,000 MW within a 10-year timeframe.
- **Connectivity Initiatives:** Enhancing connectivity between India and Nepal has been a focus. Various initiatives have been undertaken, such as the construction of high-voltage transmission lines, integrated check posts, and railway lines. These initiatives aim to facilitate the movement of goods, people, and energy between the two countries.
- **Border Management and Security Cooperation:** Border management and security cooperation have been important aspects of India-Nepal relations. Cooperation and coordination between the two countries' armies play a crucial role in maintaining peace and security along the border.
- **Economic Ties and Regional Stability:** Strengthening economic ties between India and Nepal is significant for both countries. It contributes to regional stability, promotes trade, boosts investment opportunities, and fosters overall economic growth in the region.

Dimensions of the article:



- Strengthening Hydropower Cooperation.
- Enhancing Connectivity.
- Addressing Controversial Issues
- How this affects India's

Strengthening Hydropower Cooperation.

- Nepal's rich hydropower potential and India's growing energy needs have created opportunities for cooperation in the sector. In addition to the progress mentioned in the article, there are several other dimensions to consider:
- **Economic Benefits:** Nepal's abundant hydropower resources can be harnessed to meet its own energy needs and also export surplus power to India, thereby

contributing to Nepal's revenue generation and economic growth. On the other hand, India can reduce its dependence on fossil fuels and import of electricity by tapping into Nepal's hydropower potential.

- **Regional Power Integration:** Cooperation in the hydropower sector also opens avenues for regional power integration. With the establishment of cross-border transmission lines and power trade agreements, India and Nepal can further expand their collaboration by integrating their power grids. This would enable the exchange of electricity not only between the two countries but also with other neighbouring countries, fostering greater regional energy security and cooperation.
- **Environmental Sustainability:** Hydropower is a clean and renewable energy source, and its development in Nepal can contribute to environmental sustainability. By reducing dependence on fossil fuels, hydropower projects can help mitigate greenhouse gas emissions and combat climate change.

Enhancing Connectivity

- Connectivity plays a vital role in promoting trade, people-to-people exchanges, and overall regional integration. Alongside the initiatives mentioned in the article, additional dimensions to consider include:
- **Trade Facilitation:** Improved connectivity through the establishment of integrated check posts, such as the Rupaidiha-Nepalgunj Integrated Check Post, can streamline cross-border trade and enhance economic cooperation. Efforts should be made to simplify customs procedures, reduce trade barriers, and promote investments, enabling smoother movement of goods and boosting bilateral trade between India and Nepal.
- **Tourism and Cultural Exchanges:** Enhanced connectivity also promotes tourism and cultural exchanges between the two countries. By improving transportation links, such as the extension of railway lines and the development of road networks, India and Nepal can facilitate greater tourist flow, promoting economic growth in the tourism sector. Additionally, cultural exchanges can foster mutual understanding and strengthen people-to-people ties, further solidifying the historical and cultural bonds between the two nations.
- **Digital Connectivity:** In the era of digitalization, digital connectivity assumes significance. Collaborative efforts in expanding internet infrastructure, promoting digital literacy, and facilitating cross-border digital services can unleash the potential of the digital economy and open up new avenues for cooperation between India and Nepal. This dimension of connectivity can contribute to inclusive growth, e-governance, and bridging the digital divide.

Addressing Controversial Issues

- In addition to the three issues mentioned in the article, there are other contentious matters that require attention and resolution:
- **Border Management:** Strengthening border management mechanisms and resolving border-related disputes is crucial for maintaining peace and security between India and Nepal. Collaborative efforts should be made to demarcate and manage the border effectively, addressing concerns related to border encroachments, illegal activities, and smuggling.
- **Water Resources Management:** Water resources, including shared rivers, pose challenges and opportunities for India and Nepal. Collaborative frameworks for water

resources management, including the equitable sharing of water, flood control measures, and joint river basin management, can help alleviate potential conflicts and foster sustainable utilization of water resources.

- **Cross-Border Security Cooperation:** Given the geographical proximity and historical ties between India and Nepal, cross-border security cooperation is vital for addressing common security challenges such as terrorism, trans-national crime, and border security. Strengthening intelligence sharing, joint training exercises, and coordination between law enforcement agencies can contribute to enhanced security in the region.

How this affects India

- Enhanced cooperation between India and Nepal has significant implications for India:
- **Energy Security:** Cooperation in the hydropower sector allows India to diversify its energy sources and reduce dependence on fossil fuels. Access to Nepal's hydropower potential helps India meet its growing energy demands, contributing to long-term energy security.
- **Economic Growth:** Strengthened economic ties and improved connectivity between India and Nepal create opportunities for trade, investment, and economic growth. Increased bilateral trade and investment can benefit Indian businesses and contribute to job creation and economic development in both countries.
- **Regional Stability:** A stable and cooperative relationship with Nepal is crucial for maintaining regional stability in South Asia. By addressing contentious issues, fostering mutual trust, and promoting regional integration, India can contribute to stability and peace in the region.

Conclusion

The recent visit of Prime Minister Prachanda to India has yielded positive outcomes, highlighting the potential for enhanced cooperation between the two countries. It is crucial to sustain efforts in strengthening the bilateral relationship by focusing on key dimensions such as hydropower collaboration, connectivity initiatives, and addressing contentious issues.

A Grand Revival: Strengthening India-Egypt Ties

Context:

The recent decision by India and Egypt to upgrade their bilateral ties to a Strategic Partnership during the meeting between Prime Minister Narendra Modi and Egypt President Abdel Fattah El-Sisi marks a significant milestone in India's relations with the West Asia-North Africa (WANA) region.

Relevance:

GS-02 (International treaties and agreements) (Groupings and agreements involving India and/ or affecting India's interest)

Prelims:

- Non alignment movement (NAM)
- Organization of Islamic cooperation (OIC)

Mains Questions:

Discuss the recent developments in India-Egypt relations, highlighting the areas of cooperation and their impact on regional dynamics. (250 words)

Background:

- The historical connections between the two nations have paved the way for this long-overdue collaboration. Having signed a Friendship Treaty in 1955, India's unwavering support to Egypt during the Suez Canal crisis in 1956 played a crucial role in the formation of the Non-Aligned Movement in 1961, with both countries as its founding members.
- They have been instrumental in fostering the G-77 grouping and promoting initiatives of "South-South Cooperation." Throughout the Cold War era, India and Egypt shared a common stance of not aligning themselves with either the United States or the Soviet Union.
- More recently, their positions regarding the Ukraine conflict have showcased remarkable similarity, as they refrained from criticizing Russia's actions while advocating for a diplomatic resolution.
- Prime Minister Modi's visit to the Al-Hakim Mosque and his meeting with Egypt's Grand Mufti demonstrate an earnest effort to dispel any apprehensions surrounding his government's policies towards the Muslim world.

Dimensions of the article:

- Historical Significance of India-Egypt Friendship Treaty:

- Recent Developments and Areas of Cooperation
- Impact on Regional Dynamics:

Historical Significance of India-Egypt Friendship Treaty:

- The India-Egypt Friendship Treaty, inked in 1955, holds immense historical



significance. This bilateral agreement not only laid the foundation for a strong diplomatic bond but also served as a catalyst in shaping the Non-Aligned Movement.

- By extending support to Egypt during the Suez Canal crisis in 1956, India displayed its commitment to non-alignment and refusal to align with the superpowers of the era, the United States and the Soviet Union.

- This shared stance resonated with Egypt's aspirations for autonomy and independence, leading to the consolidation of their partnership.

- Together, India and Egypt played pivotal roles in advocating for the principles of non-alignment, promoting

multilateralism, and safeguarding the interests of the Global South.

Recent Developments and Areas of Cooperation:

- In recent years, India and Egypt have witnessed a significant upswing in their bilateral relations, paving the way for enhanced cooperation across various sectors.
- The mutual decision to upgrade their ties to a Strategic Partnership reflects the commitment of both nations to forge a deeper and more comprehensive engagement.
- The wheat supply provided by India to Egypt during a critical period of export restrictions showcased India's goodwill and solidarity. This act of assistance not only bolstered Egypt's food security but also garnered appreciation and strengthened the bilateral relationship.
- Additionally, both countries are actively exploring avenues for cooperation in green energy, pharmaceuticals, and defense. The signing of MoUs in areas such as agriculture, archaeology, antiquities, and competition law demonstrates the diverse range of fields where collaboration is being fostered.

Impact on Regional Dynamics:

- The growing closeness between India and Egypt holds significant implications for the regional dynamics of the WANA region.
- As India strengthens its ties with Egypt, it simultaneously deepens its connections with the wider neighborhood, including Israel and Saudi Arabia. This multifaceted engagement enables India to play a more constructive role in addressing regional challenges and fostering stability. Furthermore, the synergy between India and Egypt

in areas such as food and energy security, multilateralism, and cooperation with the Global South, including the African Union, expands the scope of their collective influence.

- Egypt's recent participation in the "New Development Bank" established by BRICS signifies its desire to join this influential grouping. Seeking India's support in this endeavor highlights the trust and cooperation that exists between the two nations.
- By aligning themselves with each other, India and Egypt are effectively shaping the future of their economies and pursuing autonomous foreign policies.

Way Forward:

- To sustain and further strengthen the India-Egypt Strategic Partnership, it is imperative to focus on several key aspects. First and foremost, regular high-level visits and engagements should continue to foster political dialogue and reinforce the foundation of trust and cooperation.
- Second, identifying and prioritizing specific areas of collaboration, such as technology transfer, research and development, and skill exchange, will drive economic cooperation between the two nations.
- Third, people-to-people exchanges, cultural initiatives, and academic collaborations should be encouraged to deepen mutual understanding and forge lasting bonds at the grassroots level.
- Finally, leveraging the strategic location of both countries, efforts should be made to enhance connectivity, particularly in the areas of trade, tourism, and logistics, to unlock the untapped potential and facilitate greater engagement.

Conclusion:

The recent decision to elevate India-Egypt relations to a Strategic Partnership heralds a new chapter in their historical association. The enduring friendship and shared vision of non-alignment have paved the way for a comprehensive collaboration between the two nations. By capitalizing on their historical ties and navigating the complexities of the contemporary geopolitical landscape, India and Egypt are embarking on a path that encompasses not only economic prosperity but also autonomous foreign policies. The grand revival of India-Egypt relations holds immense potential to shape the dynamics of the WANA region, promote regional stability, and contribute to the collective progress of the Global South.

UN needs to be more democratic and representative

Context:

Rajnath Singh, the defence minister, stated on Tuesday that the time had come for the UN and its bodies to be "more democratic and representative of the current realities of our age" in response to the fact that India has yet to secure a seat as a permanent member of the United Nations Security Council (UNSC).

Points to Ponder:



- **Representation of India:** India should have a permanent seat on the United Nations Security Council (UNSC), according to Defence Minister Rajnath Singh, as the world's most populous country. The moral standing of the United Nations is weakened by India's exclusion from the permanent members.

- **Democratic and Representative UN Bodies:** UN Bodies Should Be More Democratic and Representative of Modern Reality, Said Singh, calling for the UN to be more democratic and more representative of modern society. This suggests that the UNSC's membership should reflect the

shifting nature of the world and incorporate countries with substantial global impact, such as India.

- **India's Peacekeeping Contributions:** India has consistently been among the top donors to UN peacekeeping missions. It is the largest contributor in terms of men and resources, having sent almost 275,000 soldiers on various missions. This demonstrates India's dedication to preserving world peace and stability.
- **Investment in Peacekeepers:** The defence minister emphasised the requirement for more funding for peacekeepers' education, equipment, and supplies. To improve their safety and efficiency in handling the new problems they confront while serving in peacekeeping missions, this investment is essential.
- **Conflict Reverberations:** Singh emphasised the detrimental repercussions of disputes that go beyond the people immediately involved. For instance, the ongoing conflict between Russia and Ukraine has caused food and energy shortages in several African and Asian nations, which has an impact on the entire world. This highlights the importance of global stakeholders addressing conflicts as they affect different regions and the entire world.
- **Stakeholder Responsibility:** Singh emphasised that the burden for conflict resolution does not fall completely on the shoulders of the disputing parties. Due to the fact that peace promotes stability and promotes economic growth, which is advantageous to all concerned states, the rest of the world becomes involved in settling conflicts.

- **India's Peacekeeping Contributions:** The head of the Indian Army, General Manoj Pande, emphasised India's considerable participation in UN peacekeeping operations. He cited the nearly 5,900 Indian peacekeepers who have been stationed all around the world, including female engagement teams, female staff officers, and military observers. India has participated in nearly all UN peacekeeping operations across four continents.
- **Visual Collection:** Defence Minister Singh exhibited a photographic collection that details India's experience in peacekeeping during the occasion. This collection honours and remembers India's commitment to UN peacekeeping operations.

BIMSTEC to adopt Bangkok Vision 2030 at next summit

Context :

According to Saurabh Kumar, Secretary (East) in the Ministry of External Affairs, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) meeting at the end of this year would embrace the Bangkok Vision 2030.

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)

- **Member States:** BIMSTEC consists of seven member states. They are:
 - Bangladesh
 - Bhutan
 - India
 - Myanmar
 - Nepal
 - Sri Lanka
 - Thailand
- **Regional Focus:** BIMSTEC member states are geographically connected to the Bay of Bengal region, and they are highly dependent on its resources and maritime connectivity.
- **Population and GDP:** The combined population of BIMSTEC member states is approximately 1.73 billion people. As of 2022, their collective gross domestic product (GDP) stands at around US\$4.4 trillion.
- **Objective:** Along the Bay of Bengal coast, South Asian and Southeast Asian nations collaborate in 14 important areas of technology and economic cooperation.
 - Trade & Investment
 - Transport & Communication
 - Energy
 - Tourism
 - Technology
 - Fisheries
 - Agriculture

- Public Health
 - Poverty Alleviation
 - Counter-Terrorism & Transnational Crime
 - Environment & Disaster Management
 - People-to-People Contact
 - Cultural Cooperation
 - Climate Change
- **Free Trade Agreement:** BIMSTEC member states have been engaged in negotiations for a free trade agreement (FTA). The FTA aims to promote trade and economic cooperation within the region, similar to the objectives of other regional organizations like the South Asian Association for Regional Cooperation (SAARC).
 - **Leadership Rotation:** BIMSTEC follows a rotation system for its leadership. The leadership position rotates in alphabetical order based on the country names of its member states. Each member state holds the chairmanship for a specific period, allowing equal representation and involvement of all member countries.
 - **Permanent Secretariat:** The permanent secretariat of BIMSTEC is located in Dhaka, Bangladesh. It serves as the administrative headquarters and facilitates coordination, communication, and implementation of BIMSTEC activities.

Points to ponder:

BIMSTEC
WHAT YOU SHOULD KNOW

Stands for **The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation**

Founded in 1997 through **Bangkok Declaration**

7 MEMBER COUNTRIES

Importance of BIMSTEC

- Accounts for **22%** of the world's population
- Combined GDP of **\$2.7 trillion**
- One-fourth of the world's traded goods cross the Bay every year
- Six focus areas—trade, technology, energy, transport, tourism and fisheries

First summit held in Thailand

Sri Lanka is the current Chair

- **Bangkok Vision 2030:** The Bangkok Vision 2030 is a proposal put forth by Thailand to guide BIMSTEC's development and progress. It seeks to propel the organization towards a region that is prosperous, resilient, and open.
- **Objectives of Bangkok Vision 2030:** The vision aims to achieve the following objectives:
 - a) **Sustainable and Balanced Growth:** It seeks to foster sustainable and balanced growth among member countries by promoting economic cooperation and development.
 - b) **Regional Inter-Connectedness:** The vision emphasizes enhancing regional connectivity and integration through various means, such as improved transport infrastructure, trade facilitation, and people-to-people connectivity.
 - c) **Involvement of Stakeholders:** It focuses on engaging all stakeholders, including governments, private sectors, civil society organizations, and academia, to ensure inclusive and participatory development.
 - d) **Strengthening BIMSTEC's Internal Strength:** The vision highlights the importance of strengthening BIMSTEC as an organization by enhancing its institutional capacity, decision-making processes, and coordination mechanisms.

- **maritime Transport Cooperation Agreement:** A maritime transport cooperation agreement is anticipated to be reached during the BIMSTEC meeting. This pact

intends to improve maritime cooperation and coordination among member nations, promoting connectivity and trade in the Bay of Bengal region.

- **Eminent Group of People:** To keep track of the development in each of BIMSTEC's seven sectors, an eminent group of people has been assembled. This group will be in charge of assessing the success of the activities and projects that BIMSTEC has undertaken in fields like commerce, investment, energy, tourism, and technology.
- **Purpose:** The event, themed "BIMSTEC - the way forward," was held by the India Foundation to discuss and plan BIMSTEC's next course of action. It gave participating nations a forum to discuss how to advance regional cooperation and accomplish the objectives outlined in the Bangkok Vision 2030.

What's the India-U.S. initiative on future tech?

Context :

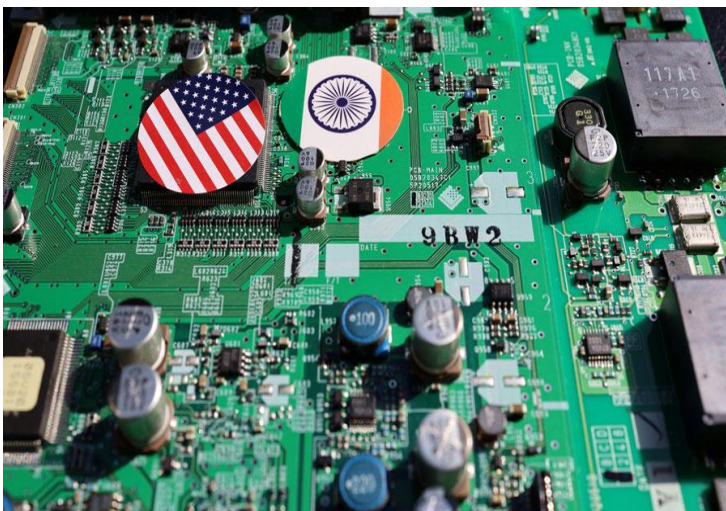
According to the iCET roadmap, India and the U.S. would collaborate on important and developing technologies in industries like semiconductors, wireless telephony, quantum computing, and artificial intelligence.

Points to Ponder:

Areas of Focus for the Initiative:

➤ Research Agency Partnership:

- Establishing a partnership between research organisations will promote cooperation in fields like artificial intelligence (AI).



- Create a new roadmap for defence-industrial cooperation to speed up technological cooperation for joint research and development and production.

➤ Common Standards in AI:

- Develop universal standards for artificial intelligence to encourage collaboration and interoperability.
- The development of a road map to quicken defence technical cooperation is necessary.
- Create an "innovation bridge" to

link defence startup companies.

➤ Semiconductor Ecosystem:

- Encourage the growth of an ecosystem for semiconductors.

- assemble a supply network for semiconductors.
 - Create a task force led by the semiconductor sector to consider recommendations.
- **Human Spaceflight:**
 - Strengthen cooperation on human spaceflight activities.
 - **Advancement in 5G and 6G:**
 - Advance cooperation on the development of 5G and 6G technologies.

Progress Made:

- **Quantum Coordination Mechanism:**
 - Put in place the Quantum Coordination Mechanism to facilitate collaboration in quantum technologies.
- **Public-Private Dialogue (PDD) on Telecommunication:**
 - Initiated a PDD on telecommunication to drive collaboration in OpenRAN, 5G, and 6G.
- **Exchanges on AI and Space:**
 - Held "important exchanges" on artificial intelligence (AI) and space.
- **Semiconductor Supply Chain:**
 - Signed a Memorandum of Understanding (MoU) on establishing a semiconductor supply chain.
 - Created a semiconductor sub-committee to review recommendations from an industry-led task force.
- **Defense Jet Engine Deal:**
 - India and the U.S. are close to concluding a mega jet engine deal.
 - India-U.S. Defense Acceleration Ecosystem (INDUS-X):
 - A new initiative called INDUS-X is set to be launched during the visit to advance cutting-edge technology cooperation.
- **Roadmap for Defense Industrial Cooperation:**
 - India and the U.S. have concluded a roadmap for defence-industrial cooperation to guide policy direction.
- **Strategic Trade Dialogue:**
 - Established a Strategic Trade Dialogue to remove regulatory barriers and review export control norms for strategic technology and trade collaborations.

PM Modi Proposes G-20 Membership for African Union

Context :

According to official sources, Prime Minister Narendra Modi has written to the G-20 leaders with a proposal that the African Union be granted full membership at the group's upcoming meeting in India.

African Union

➤ Establishment and History:

- The Organisation of African Unity (OAU) was replaced by the AU, which was formally introduced in July 2002.
- The OAU was established in May 1963 to foster solidarity, collaboration, and unity among African states.
- The OAU prioritised the abolition of apartheid and colonialism as well as the



promotion of the independence, territorial integrity, and sovereignty of African countries.

- To shift the emphasis towards greater collaboration and integration for Africa's growth and development, the AU was decided upon in 1999.

➤ Objectives of the AU:

- Achieve greater unity and solidarity between African countries and their people.
- Defend the sovereignty, territorial integrity, and independence of member states.
- Accelerate political and socio-economic integration of the continent.
- Promote and defend African common positions on issues of interest.
- Encourage international cooperation and partnerships.
- Promote peace, security, and stability in Africa.
- Promote democratic principles, good governance, and human rights.
- Foster sustainable development and the integration of African economies.
- Coordinate policies with regional economic communities.
- Advanced research, science, and technology in Africa.
- Work with international partners in health, disease eradication, and good health promotion.
- Ensure women's participation in decision-making processes.
- Develop common policies on trade, defence, and foreign relations.
- Engage the African diaspora in the building of the AU.

➤ Regional Economic Communities (RECs):

- RECs are sub-regional organizations that promote economic integration and cooperation within specific regions of Africa.
- The AU works with RECs to coordinate policies and gradually attain the objectives of the Union.

➤ **Agenda 2063:**

- Agenda 2063 is a strategic framework for Africa's long-term socio-economic and integrative transformation.
- It outlines aspirations and goals to be achieved by 2063, including sustainable development, gender equality, good governance, and a united, prosperous, and peaceful Africa.
- Agenda 2063 emphasizes African-led initiatives and collaboration to realize the continent's potential.

Points to Ponder:

- In a letter to the G-20 leaders, Prime Minister Narendra Modi proposed full membership for the African Union (AU) at the next G-20 conference in India.
- This idea seeks to strengthen Africa's voice on the world stage and assure its active involvement in determining the direction of the international community.
- The major organisation regarded as speaking for Africa is the African Union, a continental organisation with 55 member nations. As a replacement for the Organisation of African Unity, it was established in 2002.
- Prime Minister Modi wants to build a more equitable, inclusive, and representative global architecture and governance by extending full membership to the African Union.
- India is emphasising the inclusion of the priorities of African nations in the G-20 agenda as the host nation of the G-20 summit in Delhi in September.
- African countries would have a platform to directly participate in debates about global economic issues if the African Union were to join the G-20. The African Union has been working for the progress and economic growth of African countries.
- The consent of the current G-20 members is necessary to admit the African Union as a member.
- Although the suggestion is an important step towards inclusivity and empowering Africa's representation, it is yet unclear how the other G-20 countries would react and decide on it.

India Gifts INS Kirpan to Vietnam

Context

Vietnam received the indigenous constructed in-service missile corvette INS Kirpan from India as a gift to improve its naval capability. This was disclosed on Monday by Defence Minister Rajnath Singh following discussions with his visiting Vietnamese counterpart General Phan Van Gang.

INS Kirpan:

- It is an operational missile corvette made in the country.
- It is a missile corvette of the Khukri class that was commissioned into the Navy on January 12, 1991.
- It can move close to 1,400 tonnes with its displacement capacity.
- It is capable of travelling at a speed of above 25 mph.
- Diesel engines assembled in India are used in the Khukri class.
- The ship is equipped with a surface-to-surface missile launcher, a 30 mm close-range cannon, a medium-range gun, and chaff launchers.
- It carries out several different tasks, such as coastal and offshore patrol, coastal security, surface warfare, anti-piracy, and humanitarian assistance and disaster relief (HADR) operations.



Corvette

- A naval ship corvette is a small, fast, and manoeuvrable warship that typically operates in coastal waters.
- Corvettes are adaptable ships that can carry out a range of tasks, including coastal defence, anti-submarine warfare, anti-surface warfare, and maritime patrol.
- Corvettes are smaller than frigates and destroyers, typically ranging in size from 500 to 2,000 tons.
- Corvettes are highly adaptable and can be configured for different mission requirements. They can be used for patrol and surveillance, escorting larger naval vessels, mine countermeasures, and anti-submarine warfare, among other roles.

Why was the INS Kirpan gifted?

- India gifted the INS Kirpan, an indigenously-built missile corvette, to Vietnam to enhance its naval capabilities.

- Additionally, it contributed to strengthening the **India- Vietnam relationship** which will help in providing India with an ally in the region of South-East Asia.

What were the other agendas of the visit?

- During the discussions, which were mostly about reviewing the status of several bilateral defence cooperation programmes:
- Both parties expressed their satisfaction with the current activities.
- Improving **marine security and collaboration** between the two nations' defence industries.
- To strengthen current collaborations, particularly in maritime security, international cooperation, and defence industry cooperation.
- General Phan paid a visit to the DRDO's headquarters to discuss measures to improve defence industrial capabilities through collaboration in defence research and joint production.

What were the other documents signed?

- During the same visit, the defence ministers of both nations also signed a "Joint Vision Statement on India-Vietnam defence partnership towards 2030."
- It is important to note that Vietnam already purchased 12 high-speed patrol boats for its border guard force in 2014 thanks to an Indian-extended \$100 million Line of Credit.

NATO Plus Five Status For India

Context

- To provide India **'NATO plus five' defence status**, the US Senate is attempting to draught legislation.
- S. Jaishankar, the minister of external affairs for India, has previously declared that **his nation is exempt from the framework's application.**

NATO plus five

- The **North Atlantic Treaty Organisation (NATO)** and **five nations—Australia, New Zealand, Japan, Israel, and South Korea—make up NATO Plus.**
- This group's main goal is to **improve international defence cooperation.**
- India would gain several benefits by joining NATO Plus, including **streamlined intelligence sharing among members, immediate access to cutting-edge military technologies, and a strengthened defence alliance** with the United States.

Advantages of India Joining

- **Increased intelligence sharing and security cooperation** with NATO and its partner nations would be advantageous for India. Improved situational awareness, counterterrorism initiatives, and a greater comprehension of regional security dynamics might result from this.
- Through expedited transfer procedures, India would have **access to the newest military technologies and equipment through membership** in NATO + 5. As a result, India's defence forces might be modernised more quickly, improving their capabilities and readiness.
- India's defence cooperation with the United States and other NATO members would increase if it joined NATO + 5. This would make it easier to **work together more closely on different defence projects, joint military drills, and training initiatives, fostering interoperability and boosting defence capabilities.**
- **Regional security would be improved** as a result of India's membership in NATO + 5, especially in the Indo-Pacific area. It would aid in addressing shared security concerns like marine security, freedom of navigation, and balancing regional threats by increasing cooperation between like-minded nations.
- India's **deterrent capabilities against potential enemies would be strengthened by membership in NATO + 5.** This is especially important in light of the region's growing security challenges, which include territorial disputes, terrorism, and the spread of WMDs. A stronger deterrent against prospective aggression would be provided by NATO + 5's commitment to collective defence.

Possible Reasons for India's Denial

- India has always adhered to a **non-alignment policy**, supporting the preservation of independence and neutrality in international dealings. This stance would be

considerably altered by India joining NATO, which might also reduce its decision-making latitude in international affairs.

- India participates in **several regional security organisations, including the Shanghai Cooperation Organisation (SCO) and the South Asian Association for Regional Cooperation (SAARC)**. India's security issues within the South Asian and larger Eurasian setting are addressed through these regional agreements.
- India deals with a variety of threats to its security, including terrorism, border disputes, and regional conflicts. These problems call for **specialised solutions and an all-encompassing approach that might not be in line with NATO's aims**.
- India maintains **alliances with several nations outside of NATO, notably Russia, a long-time defence supplier**. Joining NATO might make these connections more difficult and reduce India's ability to create alliances and partnerships.

Trade unions boycott G-20 meet over BMS appointment

Context:

- The Labour20 (L-20), a gathering of trade unions from G-20 nations, which got underway in Patna on Thursday, has been boycotted by about ten Central Trade Unions (CTUs).
- The Centre's choice to name the RSS-backed trade union Bharatiya Mazdoor Sangh (BMS) as the L-20's head has angered the unions.

Labour 20 (L20)



- The L20 is a G20 outreach organisation that speaks up for workers' issues at the G20 level.
- It brings together trade unions from G20 nations and Global Unions, giving them a forum for cooperation and speaking out on behalf of workers' demands and concerns.
- The International Trade Union Confederation (ITUC) and the Trade Union Advisory Committee to the OECD (TUAC) are the two significant organisations that organise the L20.
- Its main goal is to inform the G20 meetings of the messages and stances of the worldwide labour movement on global affairs.
- The Employment Working Group, Sherpas, Labour and Finance Ministers, as well as other G20 bodies, are regular contacts for the L20.
- The L20 hopes to influence conversations and policies about workers' rights and social justice by taking part in these exchanges and contributing ideas to the G20 Summits.
- Trade union leaders from the world's greatest economies can directly influence the direction of global economic agendas thanks to the L20, which serves as a link between them and international trade unions.

- Trade unions can use it as a tool to advance workers' interests within the G20 framework and make sure that their opinions are heard during deliberations.
- The L20 works on topics including job creation, labour standards, and income inequality. It also makes policy proposals, promotes social discussion, and fights for fair and decent employment.
- The L20 seeks to advance equitable and sustainable economic growth that benefits workers and promotes social cohesion through its involvement with the G20.

Priorities of L20

- scaling up youth employment and excellent apprenticeships,
- ensuring the participation of women,
- ensuring the formalisation of work through global standards for minimum pay, labour rights, and social protection,
- ensuring safe and secure jobs while eradicating slavery and illegal labour from supply networks,
- achieving tax equity, sustainable, green, and inclusive growth,
- Supporting the social debate to ensure industrial transformation and the implementation of climate action through a global accord with just transition guarantees,
- ensuring equitable income distribution, reinstating banking sector regulation, and
- ensuring the fulfilment of G20 promises made in the past and present

The reason behind the boycott

- Ten Central Trade Unions (CTUs) have decided to abstain from the L-20 conference because they are unhappy with the Bharatiya Mazdoor Sangh's (BMS) selection to serve as chair. The Rashtriya Swayamsevak Sangh (RSS) is in favour of the BMS.
- The International Trade Unions Confederation (ITUC), according to the CTUs, presided over L-20 sessions in the past, and the BMS isn't an ITUC member.
- The Indian National Trade Union Congress (INTUC) requested to chair the L-20 as well, but the Centre denied their request, claiming that the BMS is India's largest trade union.

India-Egypt Strategic Partnership

Context:

In Cairo on Sunday, Prime Minister Narendra Modi and President Abdel Fattah El-Sisi had one-on-one discussions about forming a strategic alliance. The Order of the Nile, the highest accolade bestowed by the Egyptian government, was presented to the visiting Indian leader, and Mr Modi called his first official visit to Egypt "historic."

India-Egypt Relations



- Since the two nations' formal connections were established in 1955, India and Egypt have maintained bilateral relations. Their partnership has been characterised over time by mutual respect, teamwork, and involvement in a variety of interests. The relationship between India and Egypt main aspects are as follows:
- **Historical and Cultural Links:** There are numerous historical and cultural ties between Egypt and India. Indian and Egyptian ancient civilizations interacted through trade and cultural exchanges. The two nations now feel a sense of kinship thanks to their shared history.
- **Diplomatic Engagement:** Indian and Egyptian diplomats have frequently exchanged high-level visits and correspondence. Heads of state, ministers, and other officials from both nations have visited frequently, strengthening bilateral connections and creating opportunities for collaboration.
- **Trade and Economic Relations:** The relationship between India and Egypt has substantial trade and economic cooperation components. India is one of Egypt's top Asian commercial partners, and bilateral trade between the two nations has been steadily increasing. Petroleum products, chemicals, textiles, engineering items, and medicines are important trade segments.
- **Defence cooperation:** India and Egypt have worked together in the defence industry, particularly in the areas of joint training exercises, the acquisition of defence equipment, and military training. Both nations have an interest in preventing terrorism and preserving regional peace.

- **Cultural Exchanges:** Cultural and educational interactions have been very important in fostering people-to-people ties between Egypt and India. To advance cross-cultural understanding, the Egyptian Ministry of Culture and the Indian Council for Cultural Relations (ICCR) have organised performances, exhibitions, and cultural events. Additionally, Egyptian students study in India through various scholarship programmes, while Indian students pursue higher education there.
- **Energy Coordination:** With a focus on renewable energy, oil exploration, and energy security, India and Egypt have worked together in the energy sector. Egypt has indicated an interest in India's knowledge of renewable energy technologies, and India has shown interest in investing in Egypt's oil and gas industry.
- **Cooperation in security and counterterrorism:** India and Egypt have worked closely together to combat terrorism and extremism. To combat terrorism and bolster security, both nations have shared intelligence and information. Both nations have also had security issues.
- **Multilateral Cooperation:** India and Egypt have worked together on several multilateral platforms, such as the Non-Aligned Movement (NAM), the G77, and the Indian Ocean Rim Association (IORA). They have collaborated on areas of shared concern and supported each other's applications for membership in international organisations.

What was discussed in recent Bilateral discussions?

- India and Egypt have collaborated on green and renewable projects because they value clean energy and natural resources. The two parties emphasised how important it would be for them to work together on green and renewable projects in the future.
- The leaders talked about multilateral cooperation, notably in the context of the G-20. They emphasised the need for coordinated efforts to solve **food security, energy security, and climate change issues**.
- The newly formed '**India Unit**' within the **Egyptian Cabinet** was recognized as a valuable tool to steer bilateral collaborations. This unit is expected to facilitate and streamline cooperation between India and Egypt across various sectors.
- Prime Minister Modi paid homage to over **4,300 Indian soldiers** who sacrificed their lives in Egypt and Aden during World War I. He visited the **Heliopolis Commonwealth War Grave Cemetery to honour their memory**.
- Prime Minister Modi met with members of the Indian community during his visit, reaffirming the strong bonds between India and the Indian diaspora in Egypt.

What is the Order of the Nile?

- **Kiladat El Nil**, often known as the **Order of the Nile**, was founded in 1915 and served as one of the main orders of the Kingdom of Egypt until the monarchy was overthrown in 1953. Later, it was reinstated as the Republic of Egypt's highest state honour.
- **Sultan Hussein Kamel of Egypt** established the order to honour people who have contributed significantly to the nation. It was frequently given to prominent Egyptian civilians as well as British officers and officials who served in Egypt. It had a lesser rank than the Order of Ismail.

- There were five classes of the **Order of the Nile**: **Grand Cordon, Grand Officer, Commander, Officer, and Knight**.
- The Order of the Nile, the highest accolade bestowed by the Egyptian government, was presented to Prime Minister Narendra Modi.

Memoranda of Understanding (MoUs) Signed:

- **Agriculture:** To advance cooperation in the sector, an MoU was signed. Its goals include fostering agricultural productivity, exchanging best practices, and facilitating commerce in agricultural goods.
- **Archaeology and Antiquities:** The protection and development of ancient treasures and antiquities will be strengthened through the signing of another Memorandum of Understanding (MoU), which will also promote cultural exchanges between the two nations.
- **Competition Law:** To foster collaboration, exchange knowledge, and build institutional capacity in the area of competition regulation, an MoU on competition law was signed.



ECONOMY

At The Root Of India's Manufacturing Challenge

Context:

The necessity for a manufacturing ecosystem, encompassing education, training, and infrastructure, was disregarded in 1991 when the trade and industrial policy regime was revised.

Economic Reforms of 1991

- In response to a severe economic crisis, the Indian government implemented several policy changes and liberalisation initiatives known as the economic reforms of 1991.
- These changes made India's heavily regulated and internally focused economy more market-oriented and internationally integrated.
- **Liberalisation:** By removing bureaucratic restrictions and licence requirements, the government started liberalising its industry and commercial policies. This increased competitiveness and efficiency by opening many economic sectors to private and foreign investment.
- **Privatization:** The government implemented a privatisation strategy, allowing private companies to own and run firms in formerly state-controlled industries. To increase the effectiveness and productivity of public sector businesses and lessen the burden on the government, this was done.
- **Deregulation:** The government lowered barriers to foreign investment and commerce, streamlined processes, and cut back on taxes and import restrictions. With this action, India was meant to be more competitive, draw in foreign capital, and join the world economy.
- **Financial sector reforms:** To increase efficiency and stability, the financial system experienced considerable adjustments. Interest rate liberalisation, the creation of private banks, foreign bank participation, and the adoption of steps to bolster banking supervision and regulation were some of the reforms.
- **Fiscal reforms:** To lower the fiscal deficit and rein in inflation, the administration put fiscal consolidation measures into place. This required lowering subsidies, raising tax income, and streamlining government spending.
- **Exchange rate changes:** India switched from a fixed exchange rate system to one that is more flexible. Trade was facilitated and competition increased by allowing the rupee to fluctuate in response to market factors.



Points to Ponder:

- **The debate over Manufacturing vs. Services:** The text covers the ongoing discussion in India about the best course for economic development and whether manufacturing or services should take precedence.
- **Software Export Boom:** Indian software exports enjoyed a boom in the early 2000s, which prompted speculations that services should replace manufacturing as the main driver of the economy.
- **Putting the Traditional Model to the Test:** The idea of giving services precedence over manufacturing posed a challenge to the conventional economic development model, according to which the expansion of the industrial sector normally occurs before that of the services sector.
- **unhappiness with Prior Reforms:** The passage emphasises the unhappiness of Indian policymakers concerning earlier economic reforms, particularly those after the 1991 reforms that were centred on manufacturing but did not result in an appreciable rise in the sector's proportion of the GDP.
- **Manufacturing Quality Change:** Although India's manufacturing sector didn't grow considerably after the 1991 reforms, there was a qualitative improvement in the variety and calibre of goods produced there.
- **Rising Income disparity:** The increased variety and quality of manufactured items, without a corresponding increase in the manufacturing industry, point to a rise in income disparity.
- **Limited Success of Recent Measures:** Recent manufacturing-boosting measures like "Make in India" and the Production-Linked Incentive scheme have not produced significant results because manufacturing growth is still at a low level.
- **Structural Constraints:** The manufacturing sector in India has continued to experience modest growth despite legislative attempts, which raises the possibility that "structural" reasons are hindering the industry.
- **Importance of Demand:** The passage highlights the importance of demand in driving industrial expansion, particularly household demand for manufactured goods, which is generally unaffected by government supply-side initiatives.
- **The dominance of Food Expenditure:** The high proportion of household spending in India that goes towards food restrains the expansion of the market for manufactured goods.
- **Potential Exports Worldwide:** The capacity for exporting becomes essential for the manufacturing sector to overcome the constraints of the domestic market. Smaller East Asian nations have had success expanding their manufacturing sectors by relying on exports.
- **Infrastructure and Skills:** For a nation's manufacturing industry to remain globally competitive, infrastructure such as transport, ports, electricity supply, and waste disposal is essential. Equally important is the skill level of the workforce.
- **Educational Gap:** India falls behind developed manufacturing economies in terms of educational attainment. Ranking evaluations and studies show that Indian youngsters struggle with literacy, numeracy, and learning results. It is often claimed that university graduates are not employable.
- **Neglected Vocational Training:** Compared to other nations like South Korea, India's vocational training industry is undeveloped, with few young people receiving technical training.
- **Ecosystem for Manufacturing:** The section ends by emphasising the necessity for a whole ecosystem, including education, training, and infrastructure, to support the

expansion of manufacturing. It is insufficient to merely pass legislation or carry out liberalising changes.

Vande Bharat trains hit a hurdle

Context :

The **joint venture (JV)** between **Indian public sector organisation (PSU) Rail Vikas Nigam Ltd. (RVNL)** and **Russian transportation firm Transmashholding (TMH)** to produce 120 Vande Bharat Express train sets, valued at about \$3.63 billion (more than 30,000 crores), has encountered difficulties.

Vande Bharat:

- The Vande Bharat is an indigenously designed and manufactured semi-high-speed, self-propelled train that is based on a propulsion system called distributed traction power technology.
- They were called Train 18 during the development phase and are manufactured by the **Integral Coach Factory (ICF), Chennai**, as part of the **'Make in India' programme**.
- The new train is faster, easier to maintain, consumes less energy, and has greater flexibility in operation.
- India **aims to manufacture 400 Vande Bharat trains by the year 2025**.
- The Vande Bharat was India's first attempt at the creation of the train set technology compared with **conventional systems of passenger coaches hauled by separate locomotives**.
- It can achieve a maximum speed of **160 Kmph** due to faster acceleration and deceleration, **reducing journey time by 25% to 45%**.
- It is also equipped with an intelligent braking system with power regeneration for better energy efficiency thereby making it cost, energy and environment efficient.
- **Up to 108 districts in 17 States** have been connected by Vande Bharat trains.



Features of Vande Bharat Trains:

- These trains operate without an engine and are based on a propulsion system called distributed traction power technology, by which each car of the train set is powered.

- The coaches of Vande Bharat incorporate passenger amenities including onboard **WiFi entertainment, GPS-based passenger information system, CCTVs, automatic doors in all coaches, rotating chairs and bio-vacuum type toilets like in aircraft diving friendly toilets and automatic sliding cabin doors.**
- They can achieve a maximum speed of 160 kmph due to faster acceleration and deceleration, reducing journey time by 25% to 45%.
- It also has an **intelligent braking system with power regeneration for better energy efficiency thereby making it cost, energy and environment efficient.**
- The current Vande Bharat trains have seating only in two classes — chair car and executive chair car.

Points to Ponder:

- The Indian Railways granted the **TMH-RVNL partnership** a joint venture contract for about **\$3.63 billion to produce 120 Vande Bharat Express train sets.**
- The JV has run into issues as a result of the sanctions put in place against Russia after the conflict in Ukraine. Since many of the necessary components must be imported from **Western European and American firms**, these restrictions have an impact on spare parts suppliers for the Vande Bharat trains.
- As a measure to reassure foreign suppliers and bankers, **RVNL has asked for a majority stake in the JV.** These organisations feel better at ease doing business with an Indian company because of the sanctions against Russia.
- **TMH and RVNL** are at odds because TMH refused to grant RVNL's request for a majority stake. The project's progress has also been hampered by TMH's failure to deposit the needed bank guarantee in the amount of almost 200 crores.
- The **United States placed sanctions on Metrovagonmash**, a division of TMH that specialises in producing railway rolling stock and is in charge of maintenance and replacement parts. This complicates the process of supplying the Vande Bharat trains with essential components.
- By June 2025, the first two Vande Bharat prototype trains must be prepared for testing and trials. Once permitted, the consortium intends to produce 12 to 18 trains in a tapering manner each year. Additionally, they will provide 35 years of train maintenance services.
- For the train sets and an additional \$2.5 billion for upkeep, the Indian Railways has set aside \$1.8 billion.
- Because of TMH's technical prowess and the requirement for comfort when interacting with them, railway authorities are optimistic that the problem will be rectified within a few days.
- TMH and RVNL both agreed to keep the discussions over the agreement private and to keep them from becoming public. Details about the shareholder battle and the effect of the sanctions on the project, however, have come to light.

U.S. averts first-ever default with the 11th-hour debt deal

Context:

Four days before the Treasury Department's deadline, U.S. senators voted to suspend the federal debt ceiling on Thursday, bringing to a conclusion weeks of difficult discussions to do away with the risk of a calamitous credit default.

What is the US Debt ceiling Limit?

- It represents the maximum amount of debt the US can take on to cover its obligations.



- American economist Janet Louise Yellen, the 78th Secretary of the Treasury of the United States, has notified lawmakers that the US government is going to exceed the US Debt ceiling limit by June 1st.
- The US government is attempting to raise this borrowing ceiling so it can expand its debt-reduction borrowing capacity.
- The US government uses this money to cover costs such as those related to the military, infrastructure, education, and paying federal employees.
- The fixed debt ceiling is at 31.40 Trillion USD and The current ceiling is at roughly around 31.38 Trillion USD.

Short-term impact on US Economy:

- They won't be able to pay their obligations like military expenses or other expenses that have to be met by them.
- Default on the interest payments on government debts
- This will lead to the downgrading of the US economy as a whole leading to further financial chaos in the society.
- Escalating US Regional Banks Crisis

Long Term impact on the US economy

- Debt burdens on the future generations who have to pay these debts off.
- Chances of reducing the economic growth potential
- Increases the chances of financial dependence on Foreign investors.

Can India also face similar problems?

- Probably, But the difference is that India doesn't have to wait for permission from its opposition parties because as such there is no specific Debt Ceiling for India under law.
- However, it is stated as a percentage of GDP. According to the CAG report from December 2022, the FRBM framework requires the government to keep the fiscal deficit to a maximum of 3% of GDP and to endeavour to keep both the general government debt and the central government debt to a maximum of 60% and 40% of GDP, respectively.

Impact on the Indian Market?

- Loss of investor confidence in the US market
- Possible fall of Governments and political uncertainties.
- Huge rise in interest rates.

Points to ponder:

- Just four days before the Treasury's deadline, U.S. senators voted to suspend the debt ceiling. The goal of this vote was to end the possibility of a **calamitous credit default**.
- After several weeks of discussions, **Democratic President Joe Biden and Republicans** finally agreed to the vote. The **Fiscal Responsibility Act** decreases **federal spending** while **extending the government's ability to borrow money through 2024**.
- A day after the House of Representatives had approved it, the legislation was passed by the Senate by a comfortable margin of 63 votes to 36. This cross-party deal was hailed as a major victory for the economy and the people of the United States.
- If the debt limit was not raised, economists had warned that the nation could not have enough money to pay its payments by Monday. They emphasised the negative effects that would occur, such as the loss of millions of jobs, a \$15 trillion decline in personal wealth, and higher borrowing and mortgage expenses.
- **Democratic leaders emphasised how crucial it was to avoid default since it would have had a disastrous effect on the economy.** The Fiscal Responsibility Act was passed, the debt limit was suspended, and the prospect of the first default in history was eliminated.
- President Biden acknowledged his happiness with the bipartisan deal, stressing that it is a significant victory for the economy and the American people despite the reality that no one gets all they desire during negotiations. He intends to speak to the nation about the measure and sign it as soon as possible.
- Chuck Schumer, the majority leader of the Democratic Senate, emphasised the relief of averting a financial crisis. He appreciated the cooperation of both sides in averting default and emphasised the importance of this cooperation.
- Due to last-minute complaints about the specifics from party leaders and rank-and-file members, the bill's passage was difficult. Initial concerns about the Pentagon budget cap from defence hawks could have prevented the bill's approval.
- After being promised support for a separate package that would include funds for Ukraine's defence against Russian aggression, the defence hawks eventually joined

the majority. This pledge was also meant to counter Chinese aggression towards Taiwan and advance American national security objectives in West Asia.

- Now that President Biden has received the measure, he will sign it into law. When signed, it will suspend the debt ceiling, increase the government's borrowing capacity through 2024, and include budget cutbacks.

Seeing India's Energy Transition Through Its States

Context:

India intends to advocate for several energy pathways at the upcoming G20 summit to take into account the various national circumstances and development paths. India's domestic energy transformation will be determined by the diversity of its States, which calls for numerous approaches.

Points to Ponder:

➤ States as Implementation Spheres:

- States play a crucial role in achieving the country's energy goals.
- The degree to which national objectives complement state priorities and resources determines their success.
- While the federal government offers assistance, state governments must implement policies effectively.



➤ Addressing Legacy Issues:

- India's power industry has issues like high losses, erratic supply, and service calibre.
- Since these problems are ingrained in the political economy of the State, state-level solutions are required.
- During the energy transition, ignoring these legacy problems could make them worse.

➤ States as Policy Laboratories:

- By implementing novel policies, a few States have been at the forefront of India's energy revolution.
- Examples include the solar energy programmes in Gujarat and Rajasthan as well as the wind energy programmes in Maharashtra and Tamil Nadu.

- The adoption of renewable energy on a national scale has been considerably aided by these effective State trials.
- **Potential Obstacles:**
 - If states believe that national interests are not aligned with their own, they may put up barriers to achieving those goals.
 - To ensure seamless progress towards national energy targets, it is essential to interact with States and address their concerns.
- **Multi-Scalar Planning:**
 - Multi-scalar planning and execution methodologies are necessary for a successful energy transition.
 - The ability of State-level targets to contribute to the achievement of national goals must be evaluated.
 - Important things to think about include managing load mobility allowed by renewable energy and preparing for shifting institutional roles.
 - Consideration should be given to legacy issues and the distribution of resources to resolve consequences at the State level.
- **State-Level Framework:**
 - To comprehend State-specific plans, initiatives, and governance procedures, a State-level framework is required.
 - This framework should cover the processes that shape those outcomes in addition to talks that are outcome-focused.
 - The main components of this approach are increased transparency, stakeholder involvement, and evidence-based policy selections.
 - Practical and expedited energy transformation can result from an understanding of State-level diversities in priorities, capabilities, and possibilities.

How can we transition to a low-carbon city?

Context :

- We must incorporate mitigation and adaptation solutions across numerous sectors if we want to transition to low-carbon or even net-zero cities. The "sector-coupling approach" is what is used in this.
- Depending on a city's features, different mitigation and low-carbon adaptation measures are used. It is not as easy to switch to renewable energy sources as it is to switch to clean energy in place of fossil fuels. Social equity and energy justice are complex concerns that must be addressed.
- Energy systems are connected to livelihoods, local economic growth, and the socioeconomic well-being of people working in many industries both directly and indirectly. Therefore, a one-size-fits-all strategy is unlikely to guarantee a transition that is both socially and environmentally just.

Points to Ponder:

➤ Governance and planning:

- Participate in decision-making processes with a wide range of stakeholders, including communities, in governance and planning.
- Make sure that the governance of energy is transparent and accountable.
- Create inclusive policies that take the demands and worries of disadvantaged groups into account.
- Put in place measures to reduce power disparities and advance fair representation.

➤ Changes in behaviour:

- Spread knowledge about sustainable practices, energy efficiency, and conservation.
- Offer educational and training initiatives to encourage wise energy use.
- Provide rewards for adopting energy-efficient practices and technologies.
- Focus on particular neighbourhoods or groups that the shift may affect disproportionately.

➤ Innovation and technology:

- Make investments in the study and creation of renewable energy technologies.
- Projects involving clean energy should receive assistance and financial incentives.
- To provide equitable access, and facilitate technology transfer to emerging regions.
- Encourage the development of innovative renewable energy technologies, such as decentralised energy systems.

➤ Institutional capacity building:



- Provide training programs for energy planners, policymakers, and relevant stakeholders.
 - Establish knowledge-sharing platforms to exchange best practices and lessons learned.
 - Foster partnerships with international organizations to support capacity development.
 - Strengthen local institutions and organizations involved in energy planning and implementation.
- **Addressing environmental and energy injustices:**
- Implement specific strategies to help vulnerable communities with energy poverty and lower energy costs.
 - Ensure that underserved communities have access to cheap, sustainable energy options.
 - Encourage the development of programmes for retraining employees in the affected industry.
 - Create strategies to address and lessen adverse social and economic effects on impacted communities.
- **Indigenous and local knowledge:**
- Recognize and respect the traditional knowledge and practices of indigenous communities.
 - Incorporate indigenous perspectives in decision-making processes and policy development.
 - Support indigenous-led renewable energy projects and initiatives.
 - Foster partnerships and knowledge sharing between indigenous communities and mainstream energy stakeholders.

The success of the production-linked incentive (PLI) scheme

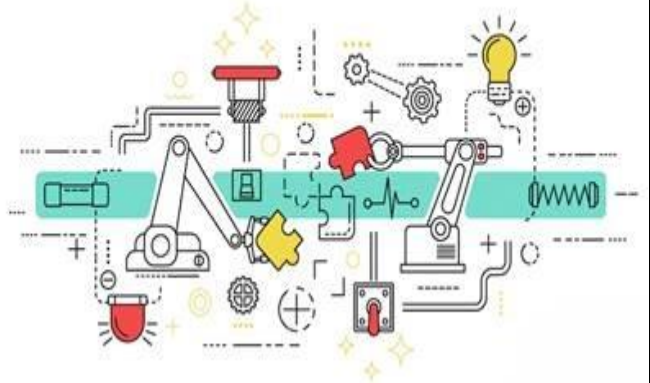
Context:

Raghuram Rajan, a former governor of the Reserve Bank of India (RBI), recently questioned the PLI scheme's effectiveness in stimulating local manufacturing and exports in India. The Centre unveiled the PLI programme in 2020. Thousands of crores of rupees have been set aside to subsidise Indian manufacturing enterprises. The PLI scheme, according to the Centre, has strengthened local manufacturing, although others have questioned its efficacy.

Production Linked Incentive (PLI)

- **Objective:** The PLI program's main goal is to increase domestic manufacturing in certain industries and lessen reliance on imports.
- **Sectors Included:** The PLI concept is relevant to several industries, including textile, food processing, pharmaceuticals, automotive, telecom, and electronics manufacturing. The government recognises industries with growth potential and provides incentives appropriately.
- **Performance-Based Incentives:** As part of the PLI programme, qualified producers get incentives based on their incremental production performance. The incentives granted an increase following production levels.
- **Eligibility criteria:** Manufacturers must meet strict eligibility requirements to take part in the PLI initiative. These requirements could include investment minimums, minimal output standards, technology adoption, and other pertinent metrics. For each area, specific guidelines are offered.
- **Time frame:** The PLI programme normally lasts for a set amount of time, typically five years or longer. The government establishes the timeline for each sector, and during the scheme term, incentives are paid out depending on the met production targets.
- **Budgetary Allocation:** Under the PLI model, the government allots a predetermined budget to each sector. The rewards that will be given out throughout the programme are covered by this budget.
- **Incentive structure:** Depending on the industry and particular requirements, the PLI plan offers various incentives kinds, including cash subsidies, direct benefits, interest subsidies, and tax benefits. The incentive system is intended to draw in investors and motivate producers to increase their output.
- **Competitive Selection Procedure:** Manufacturers are normally obliged to go through a competitive selection procedure to take part in the PLI scheme. This procedure could entail submitting thorough project proposals, completing eligibility

Production Linked Incentive Schemes



requirements, and adhering to precise evaluation standards established by the government.

- **Monitoring and Evaluation:** The government keeps a careful eye on how PLI programme participants are doing. Manufacturers must regularly update customers on their production accomplishments and other pertinent metrics. Mechanisms for evaluation are in place to guarantee compliance and efficient use of incentives.
- **Impact and Benefits:** The PLI plan intends to significantly increase manufacturing, foster job growth, accelerate technology adoption, draw in foreign capital, and lower imports. Additionally, it encourages innovation, raises competitiveness, and supports the nation's overall economic growth.

Points to ponder:(From newspaper)

➤ Arun Kumar's viewpoints

- **Developing the micro sector:** According to Arun Kumar, attention should be paid to developing the micro sector, where there are many job prospects, rather than safeguarding large-scale enterprises. The economy will experience enough demand as a result.
- **Demand shift:** According to him, the government's actions have caused a demand shift from the unorganised to the organised sectors, which has resulted in the marginalisation and demise of industries with substantial employment generation.
- **Demand shortage:** Kumar emphasises that the economy is experiencing both a demand shortage and an economic slowdown. The most important thing should be to deal with this.
- **eliminating inequalities:** Kumar advises eliminating inequalities to increase demand since the demand for mass-market goods from lower-income groups will support overall economic growth.
- **Insufficient research and development (R&D):** Kumar draws attention to the inadequate R&D conducted by Indian enterprises. He emphasises the necessity of reducing investment risk in R&D and developing indigenous strength rather than relying on technology imports.

➤ Nagesh Kumar's viewpoints

- **Targeting strategic sectors:** To promote industrialization and development, Nagesh Kumar advises focusing on strategic sectors with great potential, such as green industries, semiconductors, or electric vehicles.
- **Global competition:** As industrialization and manufacturing take place in a globally integrated environment, he emphasises the significance of keeping an eye on what other governments are doing and formulating policies appropriately.
- Demand that already exists and can be satisfied locally, according to Kumar, does not present a problem for the industries targeted by PLI. He challenges the need for imports when India has domestic manufacturing capabilities for some products.
- **Investment and incentives:** Kumar emphasises the necessity of encouraging investment to draw in companies and manufacturing. He asserts that it will be difficult to attract investments without efforts made in the areas of promotion, facilitation, and incentivization.

- **Post-Facto Incentives:** He makes it clear that PLI is a post-facto incentive given to businesses after they have produced additional output rather than a giveaway. To reward and promote their economic participation, incentives are offered.
- **Similar concerns and points of view:**
 - **Structural issues:** Addressing fundamental problems, such as boosting infrastructure, raising educational standards, and expanding R&D spending are vital, according to both experts.
 - **Bureaucratic control and cronyism:** There is general agreement that these issues must be resolved. It is best to avoid favouritism and unproductive outcomes because of the discretionary nature of subsidy allocation.
 - **Regressive nature of indirect tax:** Arun Kumar emphasises that high indirect taxes caused by subsidies can result in higher costs and prices and that subsidies are necessary to help exports and the poor. Kumar concurs that subsidies should be carefully assessed, especially in light of their effects on various societal groups.

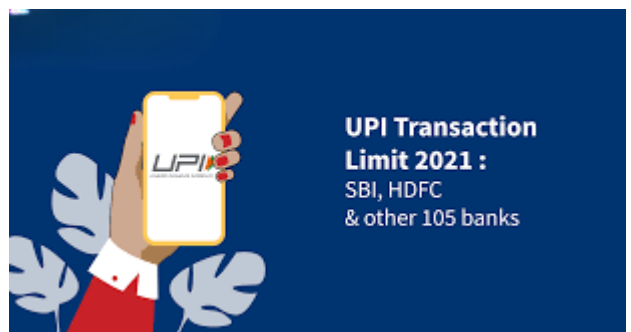
Requirement For Limits On UPI Transactions

Context:

- Users can currently make up to 20 transactions, or Rs. 1 lakh, in a single day, either all at once or spread out over the day.
- Limits would assist preserve a crucial security infrastructure and its flawless operation as the payments interface aims to increase its footprint and rising utility in daily life.
- Up until February of the fiscal year 2022–23, there had been 95,402 documented UPI scams, an increase of nearly 13% from the prior fiscal year. But at the same time, the fraud-to-sales ratio dropped to 0.0015%.

Unified Payments Interface (UPI)

- **UPI is an advanced version of Immediate Payment Service (IMPS) which allows for round-the-clock funds transfer service to make cashless payments faster, easier and smoother.**
- **UPI can link multiple bank accounts into a single mobile application of any participating bank** thereby merging several banking features which helps in seamless fund routing.
- UPI is operated by the **National Payments Corporation of India (NPCI)** which also operates the **National Automated Clearing House (NACH), Immediate Payment Service (IMPS), Aadhaar enabled Payment System (AePS), Bharat Bill Payment System (BBPS), RuPay etc.**
- **UPI was launched by NPCI in 2016 with 21 member banks.**
- The NPCI has allowed non-resident Indians to link their non-resident external accounts (NRE) and non-resident ordinary accounts (NRO) which have international numbers to be linked to UPI.
- In October 2018 NPCI had allowed UPI transactions to and from NRO/NRE accounts linked to Indian numbers.
- Users from ten countries (Singapore, Australia, Canada, Hong Kong, Oman, Qatar, the U.S., Saudi Arabia, UAE, and the U.K.) will be able to avail of the facility.



Points to Ponder:

- **UPI daily limits:** Users of UPI are now only permitted to do 20 transactions, or Rs. 1 lakh, in a single day. A higher restriction of 2 lakh rupees applies to some specialised sectors, including capital markets, collections, insurance, and forward inbound remittances. The transaction cap for the ASBA IPO and retail direct programmes using UPI is 5 lakh rupees.
- **restrictions unique to banks:** Some banks have established their transactional caps, which are less restrictive than the typical UPI caps. For instance, the

restrictions for Punjab National Bank (PNB) and Bank of Baroda are 25,000 and 50,000, respectively.

- **App-specific restrictions:** Some applications, like Google Pay, have their transactional restrictions. If users attempt to send money more than 10 times in one day across all UPI apps, they risk exceeding the daily limit.
- **balancing client security and convenience:** The restrictions are aimed to strike a compromise between client convenience and worry about fraud and risk. To make sure the required changes are made, the National Payments Corporation of India (NPCI) and ecosystem participants constantly evaluate transaction and value limitations. Specific categories with higher transaction values, such as capital markets or credit card bill payments, are given higher limits.
- **Trending UPI:** UPI transaction volume has significantly increased in recent years. UPI transactions totalled 9,415.19 million in May 2023 and had a collective value of \$14.89 lakh crore. Peer-to-peer (P2P) transactions made up roughly 43% of the volume but contributed more money, totalling 11.45 lakh crore. P2M (peer-to-merchant) transactions dominated the same amount bracket with 84.3% of the market, while the majority of P2P transactions were in the sub-500 range.
- **UPI fraud cases:** As UPI transactions have grown, so have the number of recorded UPI frauds. Though the fraud-to-sales ratio has decreased, it still shows that fraud is quite uncommon. The total number of reported UPI fraud instances grew from the prior year by around 13% in the fiscal year 2022–2023, totalling 95,402 cases.
- **Importance of the security infrastructure:** To counteract the rising fraud incidents, the developing UPI ecosystem must have a strong security infrastructure in place. This guarantees the security of transactions and upholds user confidence.

Will a hike in MSP help farmers?

Context :

- To "ensure remunerative prices for growers for their produce and to encourage crop diversification," the Centre announced last week the Minimum Support Price (MSP) for this year's summer (Kharif) season crops, raising prices by between 5 and 10% from the previous season.
- Several farming organisations have voiced their displeasure with the most recent MSP for the summer crops, calling it insufficient.
- For the vast majority of farmers over time, particularly small and marginal farmers, farming has not proven to be profitable. The long-term solution to the financial hardship of farmers may be an increase in their revenue.

Challenges faced by farmers:

- **Delayed opening of procurement centres:**
 - Farmers encounter challenges when procurement centres open late or are situated far from their farms.
 - Farmers are more vulnerable when procurement centres are delayed, which costs money.
- **Exploitation by Commission Agents**
 - Commission agents take advantage of farmers' lack of market awareness by purchasing their produce for less than the MSP.
 - This defeats the MSP's intent and disadvantages farmers financially.
- **Farmers' lack of knowledge:**
 - Many farmers are unaware of the MSP's advantages.
 - Their inability to use the MSP and access government procurement processes is hampered by this lack of awareness.

Minimum Support Price:

- The MSP is an advisory price signal set by the government to protect farmers and guarantee they earn a minimal profit for their agricultural output.
- It seeks to improve food security in the nation by motivating farmers to produce necessities.
- The MSP has evolved since it was first implemented in the 1960s as a means of encouraging farmers to adopt new technologies and raise agricultural output.
- It has transformed into a market intervention and farmer income assistance programme over time.
- The MSP is an advisory price signal set by the government to protect farmers and guarantee they earn a minimal profit for their agricultural output.
- It seeks to improve food security in the nation by motivating farmers to produce necessities.
- The MSP has evolved since it was first implemented in the 1960s as a means of encouraging farmers to adopt new technologies and raise agricultural output.

- It has transformed into a market intervention and farmer income assistance programme over time.

What is the government's announcement?

- For the marketing season of 2023–2024, the government published the MSP on June 7 for 17 "kharif" crops, including cotton, rice, and pulses (moong, arhar, and urad).



- At a meeting of the Cabinet Committee on Economic Affairs (CCEA), they were authorised. The government claims that the rise in MSP is in keeping with the announcement made in the Union Budget 2018–19 to fix the MSP at a level of at least 1.5 times the weighted average cost of production for all of India, which aims to provide farmers with a fairly reasonable wage.
- The increase in MSP for Kharif crops this year, according to Food Minister Piyush Goyal, is the

biggest in comparison to prior years.

What about foodgrain stock?

➤ Regarding foodgrain production:

- The third advance estimates for the 2022-23 crop year in India indicate a record foodgrain production of 330.5 million tonnes.
- This production level represents an increase of 14.9 million tonnes compared to the previous year (2021-22).
- The 14.9 million tonne increase is the highest growth in the last five years, as per government data.

➤ Impact of delayed monsoon on cropping:

- M.S. Sidhu, a former professor at Punjab Agricultural University, suggests that a delay in monsoon rains can affect cropping in non-irrigated regions.
- Approximately 51% of the country's cultivated area relies on rainfall for irrigation.
- If rains are delayed, there is a possibility of an impact on agricultural activities in these rain-fed regions.
- The timing and quantity of rainfall are crucial for the growth and yield of crops.

➤ Foodgrain stocks and food security:

- As of May 1, 2023, the total stocks of rice and wheat held by the Food Corporation of India (FCI) and State agencies amounted to 555.34 lakh tonnes.
- These stocks comprised 265.06 lakh tonnes of rice and 290.28 lakh tonnes of wheat.
- The quantity of food grains held indicates that the country has a comfortable level of stocks to meet immediate requirements and maintain food security.

Potential solutions:

- **Establish an assured market mechanism:**
 - The government, including both the Centre and States, should develop a robust system to ensure an assured market for farmers' produce.
 - This mechanism would include setting up procurement centres promptly and ensuring easy accessibility for farmers.

- **Strengthen the legal status of the MSP:**
 - Farmers' demand for legal status for the MSP should be addressed.
 - Enact legislation to provide a concrete legal framework for the MSP, which would include provisions for the procurement of produce at the assured price.

- **Improve transparency and accountability:**
 - Implement measures to enhance transparency in the procurement process, such as digital platforms for selling produce.
 - Provide farmers with accurate and timely information on prices, procurement centres, and MSP-related updates.
 - Monitor and take strict action against commission agents and middlemen involved in malpractices.

- **Enhance farmer awareness:**
 - Conduct widespread awareness campaigns to educate farmers about the MSP and its benefits.
 - Use various channels such as workshops, training programs, farmer organizations, and agricultural extension services to disseminate information.

- **Strengthen enforcement mechanisms:**
 - Establish mechanisms to ensure compliance with the MSP and take prompt action against any violations.
 - Regularly monitor the procurement process and address grievances raised by farmers.

- **Promote fair trade practices:**
 - Encourage fair trade practices by promoting competitive and transparent bidding processes during procurement.
 - Provide a platform for farmers to directly sell their products without the involvement of intermediaries, ensuring better returns.

- **Invest in infrastructure development:**
 - Allocate resources to improve agricultural infrastructure, including storage facilities, transportation networks, and market linkages.
 - This will help reduce post-harvest losses, ensure timely procurement, and facilitate farmers' access to markets.

Strengthening the ICDS Scheme

Context:

To combat this, India needs to improve its current social sector programmes, such as the Integrated Child Development Services (ICDS). The ICDS addresses non-formal preschool education, targeting children aged 0 to 6 years, pregnant women, and breastfeeding mothers, and ends the cycle of malnutrition, morbidity, and mortality.

Integrated Child Development Services

- **Anganwadi Services**, the new name for the **ICDS Scheme**, is one of the governments of India's most prominent initiatives.
- One of the **largest programmes** in the world for **children's holistic development**, it was introduced in 1975.
- In every region of the nation, state governments and union territories carry out the programme.

➤ Objectives of the scheme:

- Improve the nutritional and physical health of children between the ages of 0 and 6.
- Ensure that kids are developing physically, mentally, and socially.
- Reduce the incidence of death, disease, starvation, and school abandonment.
- Encourage cooperation amongst the many child development divisions.
- increase mothers' capacity to meet the dietary and health needs of their offspring.



➤ Beneficiaries of the scheme are:

- Children in the 0–6 age range are among the program's recipients.
- women who are pregnant and nursing mothers.
- girls between the ages of 14 and 18 in the North Eastern States and Aspirational Districts.
- No matter their caste, religion, or level of income, all qualified beneficiaries are welcome to participate in the programme.

➤ Six essential services are provided by ICDS/Anganwadi Services:

- Children under the age of six, pregnant women, and nursing mothers are given hot meals and take-home rations as part of the supplemental nutrition programme.
- **Pre-school Non-Formal Education:** Provides preschool instruction to kids between the ages of 3-6.
- Women between the ages of 15 and 45 can receive education on diet and health.

- **Immunisation:** Ensures that services are provided for infants under the age of six, expectant mothers, and nursing mothers.
- Conducts routine health examinations for infants under the age of six, expectant women, and breastfeeding moms.
- **Referral Services:** Provides referral services for additional medical care if any problems with your health are found.
- ❖ **The plan's financial structure is as follows:**
 - The Supplementary Nutrition Programme (SNP) is the only component whose funding is distributed in a 60:40 (central: state) ratio.
 - Except for the North East states, which have a 90:10 ratio, the SNP component is supported through a 50:50 ratio.
 - A predetermined monthly honorarium is paid to **Anganwadi workers (AWWs) and Anganwadi helpers (AWHs)**. In addition, they get compensated for the work they do.
 - The quantity of AWCs and Mini-AWCs in a location is decided by population standards to ensure proper coverage.
 - To improve nutritional and early childhood development outcomes, the ICDS Systems Strengthening and Nutrition Improvement Project (ISSNIP) was created.
 - The **project's primary target audience is young children under the age of three in particular districts across eight states**. Pilots for convergent nutrition initiatives and urban areas are also included in non-project states.

Points to Ponder:

- **Correlation between early-life poverty, malnutrition, and insufficient stimulation and cognitive and economic challenges:** Empirical research has demonstrated a link between early-life poverty, malnutrition, and insufficient stimulation. This emphasises how crucial early childhood interventions are for boosting human capital, especially in emerging nations like India.
- **The positive impact of ICDS on cognitive achievements:** The ICDS has a significant effect on cognitive outcomes, particularly for females and those from economically disadvantaged families, according to a study published in the journal World Development. This suggests that ICDS interventions can aid in severing the link between malnutrition and increased morbidity and death.
- **Worker empowerment:** The passage stresses the value of supporting Anganwadi workers, who serve as the ICDS's foundation. The advancement of children's nutrition, health, and education in their communities is greatly aided by these employees. The impact of ICDS can be increased by giving children access to current technologies, offering health education, overseeing feeding programmes, and fostering collaboration with medical professionals.
- **More Anganwadi personnel are needed:** The paragraph advises reducing the burden by adding a second Anganwadi worker to each of India's 13,99,661 Anganwadi centres. Children would benefit from this in terms of their health and educational outcomes, as shown by a randomised controlled experiment in Tamil Nadu. Additionally, it would help to lower the prevalence of severe malnutrition and child stunting.
- **Cost-effectiveness of hiring more people:** Considering the potential advantages, the cost of implementing this strategy statewide is comparatively negligible. Based on anticipated increases in lifetime wages, the estimated long-term benefits would be

between 13 and 21 times the costs. This demonstrates how financially advantageous hiring more Anganwadi employees is.

- **Specialization of workers:** Worker specialisation More Anganwadi staff will enable existing workers to spend more time on children's health and nutrition because the new hires may concentrate especially on preschool and early childhood education. The effectiveness and impact of ICDS interventions would be improved by this specialisation.
- **Job creation for women:** Women would gain 1.3 million new jobs if the plan to increase the number of Anganwadi employees was put into action throughout India. This enhances rural communities' quality of life while also giving locals—particularly women—the chance to contribute to the ICDS programme.
- **Importance of tailored implementation:** The ICDS is implemented by state governments, and the hiring of Anganwadi employees falls under their purview. This highlights the importance of customised implementation. This decentralised strategy enables efficient, personalised implementation based on standards and laws unique to the region. It guarantees that the programme is customised to meet the unique requirements of each state or region.
- **Need for infrastructure development and training:** The text emphasises the value of increasing funding for Anganwadi employees' training programmes. It also emphasises the necessity of constructing pucca buildings, functional sanitary facilities, and access to drinking water in Anganwadi centres. These advancements are required to open

Navigating the Surge: Challenges and Solutions for UPI Transactions in India

Context:

While the National Payments Corporation of India (NPCI) set a limit of 20 transactions and ₹1 lakh per day, individual banks and apps have implemented their restrictions, creating a complex web of limitations.

Relevance:

GS-02 (Government policies & Intervention), GS-03 (Indian Economy- Banking sector)

Prelims:

- Unified Payments Interface (UPI)
- National payments corporation of India (NPCI)

Mains Questions:

- Analyze the factors contributing to the rapid rise in UPI transactions in India. Discuss the implications of this surge in terms of volume and value, along with the challenges faced by banks in keeping up with the increasing demand. (250 words)
- India's digital payment innovation is a game changer for the economy. Comment (150 words)

NPCI:



- NPCI is the National Payments Corporation of India, established in 2008 under the guidance of RBI and IBA.
- It is responsible for managing and operating key retail payment systems in India.
- NPCI's notable initiatives include

Unified Payments Interface (UPI), National Electronic Funds Transfer (NEFT), Immediate Payment Service (IMPS), Aadhaar Enabled Payment System (AePS), and Bharat Bill Payment System (BBPS).

- NPCI's UPI has gained significant popularity as a real-time payment system that allows users to link multiple bank accounts and make instant transactions using a UPI ID.

- NPCI plays a vital role in promoting financial inclusion, reducing cash transactions, and digitizing the Indian economy through its secure and efficient payment infrastructure.

How India's Digital Payment Revolution is Inspiring the World?

- **Rapid Growth and Adoption:** India's Unified Payment Interface (UPI) has witnessed significant growth, with eight billion transactions worth nearly \$200 billion carried out in January. It is used by close to 300 million individuals and 50 million merchants, transforming commerce and expanding access to digital payments.
- **Financial Inclusion and Government Programs:** The digital payment revolution in India has extended banking services, credit, and savings to millions of previously unbanked individuals. It has also enhanced the reach of government programs and tax collection, contributing to economic development and ease of living.
- **Innovative Public-Private Partnership:** The success of India's digital payment ecosystem is built upon a strong public-private partnership. The government laid the foundation, and innovation has thrived on top of the digital infrastructure, enabling low-cost and accessible solutions for all.
- **Technological Leapfrogging:** India's digital payment revolution demonstrates how rapid technological innovation can leapfrog traditional development stages. It has spurred economic growth, showcasing the potential for developing nations to achieve significant progress through digital transformation.
- **Behavioural Shift and Trust:** The behavioural shift from cash to digital payments has been driven by trust and accessibility. The government's emphasis on privacy and consent, along with innovative features like voice notifications, has built trust among merchants and consumers, fostering widespread adoption.



Dimensions of the Article:

- Factors contributing to the rapid rise in UPI transactions.
- Implications of the surge in UPI transactions.
- Challenges and Measures to be Taken.

Factors contributing to the rapid rise in UPI transactions:

- **Convenience and Ease of Use:** UPI provides a seamless and user-friendly interface for making digital payments. It eliminates the need for entering multiple details like bank account numbers and IFSC codes, making transactions quick and hassle-free.
- **Government Initiatives:** The Indian government's push towards digital payments, especially after demonetization, has increased awareness and adoption of UPI.

Initiatives like Jan Dhan Yojana and the promotion of digital literacy have played a significant role.

- **Smartphone Penetration:** The widespread availability and affordability of smartphones have facilitated the adoption of UPI. With increased internet connectivity, people from all sections of society can now access digital payment services.
- **Cashless Economy:** UPI gained popularity as a cash alternative, particularly for small-value transactions. Its ease of use and acceptance across various merchants have contributed to its widespread adoption.
- **Integration with Multiple Apps:** UPI's interoperability enables users to link multiple bank accounts to a single UPI ID, providing convenience and flexibility. This integration with numerous apps has further boosted its popularity.

Implications of the surge in UPI transactions:

- **Volume vs. Value:** While the volume of UPI transactions has skyrocketed, the value associated with each transaction has declined over time. This indicates a shift towards smaller-value transactions, with UPI being used as an alternative to petty cash.
- **Banking Infrastructure Challenges:** The surge in UPI transactions has put a strain on banking infrastructure and technical systems. Banks are struggling to keep up with the increasing demand, leading to transaction failures and delays.
- **Transaction Limits:** To manage the load on their systems, smaller banks have imposed lower transaction limits than the ₹1 lakh allowed by the NPCI. This creates discrepancies and inconsistencies across different banks and apps, causing confusion among users.
- **Financial Inclusion:** UPI's growth has positively impacted financial inclusion by enabling individuals without access to traditional banking services to participate in digital transactions. However, the limitations imposed by banks could hinder this progress, limiting the reach of UPI to underserved populations.

Challenges and Measures to be taken:

- **Upgrading Banking Infrastructure:** Banks need to invest in upgrading their infrastructure and technical systems to handle the increasing volume of UPI transactions. This will help minimize transaction failures and ensure a seamless payment experience.
- **Standardization of Transaction Limits:** To avoid confusion and ensure uniformity, a standardized approach to transaction limits should be adopted. The NPCI could play a crucial role in setting guidelines for banks and apps, promoting consistency across the UPI ecosystem.
- **Enhancing Security Measures:** As UPI transactions grow, the need for robust security measures becomes paramount. Banks and apps should focus on implementing strong authentication mechanisms, fraud detection systems, and customer education to protect users' financial data.
- **Awareness and Training:** Initiatives to promote awareness and digital literacy should continue, particularly in rural areas. Training programs can empower individuals to understand and utilize UPI effectively, leading to increased adoption.

- **Collaboration between Stakeholders:** Collaboration between banks, fintech companies, and the government is essential to address the challenges associated with UPI transactions. Regular consultations and feedback mechanisms can help identify and resolve issues efficiently.

Conclusion:

The surge in UPI transactions in India has transformed the digital payment landscape. While the volume of transactions has increased exponentially, the value associated with each transaction has declined over time. This trend indicates a shift towards smaller-value transactions, highlighting the growing popularity of UPI as an alternative to petty cash.

Bridging the Gender Gap: An Imperative for India's Progress

Context:

India's journey towards reducing gender disparities has shown some progress, evident in its improved ranking in the annual Gender Gap Report, 2023. While education and political empowerment have witnessed positive strides, challenges persist in economic participation and opportunity, health and survival, and overall gender equality. This article delves into these dimensions, highlighting the significance of the Women's Reservation Bill and proposing a comprehensive way forward to bridge the gender gap in India.

Relevance:

GS-02-(Issues related to Children) (Issues related to women)

Prelims:

- Gender Gap Report, 2023
- Gender Parity
- World Economic Forum

Mains Questions:

Analyze the significance of the Women's Reservation Bill in enhancing women's participation in politics and suggest measures to expedite its implementation. (250 words)

Dimensions of the Article:

- Economic Participation and Opportunity.

- Health and Survival.
- Political Empowerment.

Economic Participation and Opportunity



- India's progress in providing equal access to economic participation and opportunity has been slow, with a parity rate of less than 40%. Although there have been positive developments in wage and income parity, the representation of women in senior positions and technical roles has regrettably declined.
- Tackling this issue demands concerted efforts to promote gender-inclusive hiring practices, offer skill development opportunities, and

eliminate gender biases in the workplace.

- Additionally, policies supporting affordable childcare and flexible work arrangements can empower women to strike a balance between their professional and domestic responsibilities.

Health and Survival

- Despite recent improvements in the sex ratio at birth, India's performance in health and survival remains a concern. Ensuring access to quality education and providing employment opportunities are pivotal in enhancing overall development indices and breaking the cycle of early marriages that often lead to poor maternal and child health.
- Empowering girls with job-assured skills and facilitating their access to education not only improves their well-being but also contributes to the nation's progress.
- Furthermore, addressing deeply ingrained cultural and patriarchal norms while prioritizing women's safety is vital in fostering their active participation in the workforce.

Political Empowerment

- India has made commendable strides in political empowerment, with women's representation in local governance surpassing 40%. However, there is still significant room for improvement at the national level.
- The long-pending Women's Reservation Bill, introduced in 1996, proposes reserving 33% of seats in the Lok Sabha and State Assemblies for women. Enacting this bill would provide a substantial boost to women's political participation, ensuring their voices are heard in shaping policy decisions.
- The Parliament must prioritize the passage of this crucial legislation to bridge the gender gap in political representation.

Way Forward

- Bridging the gender gap in India requires a comprehensive and multifaceted approach:
- Strengthening educational opportunities for girls and ensuring equitable access to quality education across the country.
- Promoting gender-inclusive policies and practices in workplaces, such as implementing flexible work arrangements and actively combating gender biases.
- Urgently implementing the Women's Reservation Bill to enhance women's political representation at all levels.
- Creating a safe and supportive environment that empowers women and challenges prevailing patriarchal and cultural norms.
- Encouraging meaningful public-private partnerships to provide skill development programs and job opportunities tailored for women.

Conclusion

India's progress in reducing gender disparities, as indicated in the Gender Gap Report, 2023, is undoubtedly a step in the right direction. However, achieving true gender equality requires continued efforts and a focus on economic participation, health and survival, and political empowerment. By empowering women and ensuring their full and equal participation in all spheres of society, India can unlock its true potential for sustainable growth and development.

India Rankings for Higher Education Institutions

Context:

The recently released India Rankings for 2023 by the National Institutional Ranking Framework (NIRF) have sparked discussions about the state of higher education institutions in the country. While the rankings serve as a benchmark, certain issues need careful consideration.

Relevance:

GS-02 (Education, Government Policies & Intervention)

Prelims:

NIRF Ranking, 2023

Mains Questions:

Examine the incongruence between quantity and quality in the ranking of colleges and the need for a mission to improve quality across the country. (150 words)

Dimensions of the Article:

- Issue of Participation and Urban Bias
- Quantity versus Quality
- Quality Differences between Private and Government Institutions
- Faculty Strength and Rankings
- Scientific Publications and Research Investment

Issue of Participation and Urban Bias

- The participation of higher education institutions in the NIRF rankings raises concerns about overall representation and transparency. Out of the numerous universities and colleges in India, only 12.3% took part in the ranking process.
- This lack of information about the parameters for the remaining 87.7% of institutions is troubling, especially for a country aspiring to leverage its demographic advantages. Moreover, the ranking framework seems to exhibit an inherent urban bias, further highlighted by the limited presence of colleges from rural areas.



Quantity versus Quality

- The distribution of top-ranked colleges showcases a significant concentration in certain states, namely Tamil Nadu, Delhi, and Kerala. The absence of any college from Uttar Pradesh, despite it having the highest number of colleges in the country, raises questions about the quality disparities across states.
- To address this issue, both the central and state governments should allocate substantial funds to improve the overall quality of education across the country.

Quality Differences between Private and Government Institutions

- A noticeable disparity exists between private and government institutions in terms of rankings.
- Private institutions struggle to secure top ranks, indicating the need for enhancing their quality.
- Additionally, there is immense potential for more state universities to feature prominently in the rankings, which can significantly benefit students in rural areas.

Faculty Strength and Rankings

- The correlation between faculty strength and rankings is evident when comparing the top 100 universities with the remaining institutions. The number of faculty members in the top 100 universities far exceeds that of the remaining universities.
- Similarly, colleges in the top 100 list boast a higher average number of faculty members. It is crucial to recognize that quality education cannot solely rely on infrastructure but also depends on qualified and adequate faculty.
- Non-compliance with prescribed faculty-student ratios, especially in engineering institutions, further highlights the need for improvement.

Scientific Publications and Research Investment

- Faculty strength and quality are also reflected in the volume of scientific publications. The majority of scholarly output in India comes from the institutions that participated in the rankings, indicating a concentration of research efforts. However, there is a significant discrepancy in scientific publications across disciplines, with management institutions showing alarmingly low publication rates.
- To enhance the overall quality of higher education, substantial financial resources, similar to those invested by countries like China, are required. India's share in global scientific publications remains relatively low, and increased research investments are necessary to bridge this gap.

Way Forward:

- To address the challenges highlighted by the rankings, a multi-pronged approach is necessary.
- Efforts should be made to increase the participation of institutions, especially from rural areas, to ensure a fair representation.

- A mission to improve quality across states must be launched, with adequate funding from both central and state budgets.
- Investments should focus on enhancing faculty strength and complying with faculty-student ratios.
- A significant increase in research funding is essential to boost India's share in global scientific publications.

Conclusion:

The India Rankings for Higher Education Institutions provide valuable insights into the state of education in the country. However, they also shed light on critical issues that demand immediate attention. Bridging the participation gap, addressing the disparity between quantity and quality, and investing in faculty strength and research are essential steps to enhance the overall quality of higher education in India. By implementing these measures, India can unlock its full potential and establish itself as a global leader in education.

Analyzing the Employment-Generation Needs in the Indian Economy

Context:

The dive into the employment requirements of the Indian economy, questioning whether the proposed job creation targets are sufficient to address the nation's unemployment crisis.

Relevance:

GS-03 (Indian Economy, Growth and Development)

Prelims:

- Prime Minister Employment Generation Program (PMEGP)
- E-Shram Portal

Mains Questions:

How does the current population growth rate impact the labour force in the context of employment generation? (150 words)

Dimensions of the article:

- Analysing the Impact of Population Growth on the Labour Force

- Assessing the Relevance of Birth Rate to the Potential Workforce
- The Dominance of the Unorganized Sector and Its Implications

Analysing the Impact of Population Growth on the Labour Force

- The government-affiliated economists contend that the current population growth rate is inconsequential to the growth of the labour force. However, this viewpoint demands scrutiny.



- The labour force, comprising individuals aged 15-64 actively seeking employment, experiences the effects of population growth with a delay of 15 years. Those born in earlier years, such as 2003-04, are now entering the labour force after completing their high school education and individuals pursuing higher education or preparing for various exams may not immediately join the labour force.
- It is essential to recognize that most individuals, particularly those from lower-income backgrounds, cannot afford prolonged unemployment. Moreover, social pressures on middle-class individuals necessitate their entry into the workforce, barring a few who venture into entrepreneurship due to limited capital and required skills.

Assessing the Relevance of Birth Rate to the Potential Workforce

- In evaluating the potential workforce, the birth rate takes precedence over the population growth rate. Population increase primarily stems from the difference between births and deaths. With life expectancy in India surpassing 70 years and higher child mortality rates, deaths among children under five years old significantly impact population growth. By subtracting deaths among young children from the total number of births, we can ascertain the potential number of individuals entering the labour force after 15 years.
- Considering gender dynamics, where fewer women join the labour force due to social reasons, segregating the numbers between men and women becomes crucial. Applying the gender ratio of 1,068 men for every 1,000 women in 2022, we arrive at approximately 24,187,591 potential young people entering the labour force.
- Although some individuals may prepare for exams, those who have already invested years in exam preparation would join the workforce.

- It is worth noting that if ample employment opportunities were available, many would refrain from repeatedly appearing for these exams.
- A fraction of the young population may choose to pursue work or studies abroad, but their numbers remain relatively small compared to the total potential workforce.

The Dominance of the Unorganized Sector and Its Implications

- The unorganized sector constitutes a significant portion of the Indian labour force, with the organized sector offering limited job prospects due to mechanization and automation.
- Approximately 94% of the labour force engages in the unorganized sector, often earning meagre wages. Notably, the e-Shram portal registered 280 million individuals in November 2022, and a staggering 94% reported earning less than ₹10,000 per month.
- As the organized sector grows at the expense of the unorganized sector, unemployment rates rise. Unemployment manifests in various forms, including unemployment, underemployment, disguised unemployment, and individuals who have given up on finding employment.
- Simplified assumptions reveal that around 286 million individuals require stable employment, primarily stemming from the unorganized sector. Alarmingly, only 332 million individuals currently hold steady jobs, with a significant portion also operating within the unorganized sector.
- These figures underscore the insufficiency of creating jobs for a mere 5 million-8 million young individuals, in tackling India's unemployment problem.

Way Forward:

- To effectively address the employment crisis in India, a multifaceted approach is essential. Policymakers should consider the following measures:
- Encourage skill development: Emphasize vocational training programs to equip individuals with in-demand skills and enhance their employability in various sectors.
- Promote entrepreneurship: Establish supportive mechanisms, such as access to capital, mentoring, and simplified regulatory frameworks, to foster a culture of entrepreneurship and encourage job creation.
- Strengthen the organized sector: Implement policies to foster growth and innovation in the organized sector, leading to increased job opportunities and higher wages for workers.
- Improve labour market information: Enhance data collection and analysis to better understand labour market dynamics and align educational and training programs with industry requirements.
- Foster inclusive growth: Prioritize policies that target marginalized communities, women, and rural areas to ensure equitable access to employment opportunities.

Conclusion:

The employment-generation needs of the Indian economy far exceed the proposed targets of creating jobs for a limited number of young individuals. By analyzing the population growth rate, birth rate, and dominance of the unorganized sector, it becomes evident that a

comprehensive and holistic approach is necessary to address the nation's unemployment crisis. Policymakers must prioritize skill development, entrepreneurship, and the growth of the organized sector while fostering inclusive and sustainable economic growth. Only through concerted efforts can India pave the way towards meaningful employment opportunities for its burgeoning workforce.

The Open Market Sale Scheme for wheat and rice

Context:

The recent developments regarding the Open Market Sale Scheme (OMSS) implemented by the Food Corporation of India (FCI). The FCI imposed quantity restrictions and prohibited states from procuring wheat and rice through OMSS auctions. The government's objective was to regulate supply and curb inflation. However, states like Karnataka and Tamil Nadu criticized this decision, arguing that it prioritizes political considerations over the welfare of marginalized beneficiaries of state welfare schemes.

Relevance:

GS-02 (Government Policies and Intervention)

GS-03 (Growth and development, Public Distribution System, Buffer stocks and food security)

Prelims:

- Open Market Sale Scheme (OMSS)
- Food Corporation of India (FCI)

Mains Questions:

Analyze the reasons behind the imposition of quantity restrictions by the Food Corporation of India (FCI) and the subsequent exclusion of states from procuring through the Open Market Sale Scheme (OMSS). What implications does this decision have on the welfare schemes of the states? (150 words)

Dimensions of the article:

- Imposition of Quantity Restrictions and Exclusion of States from OMSS Auctions
- Understanding the Open Market Sale Scheme (OMSS)
- Revision of OMSS by the Centre
- FCI's Perspective and Obligations
- State Reactions and Implications

I. Imposition of Quantity Restrictions and Exclusion of States from OMSS Auctions

- The decision by the Food Corporation of India (FCI) to impose quantity restrictions and exclude states from participating in Open Market Sale Scheme (OMSS) auctions has sparked significant controversy.
- The FCI justified these measures as a means to curb inflation and regulate the supply of essential food grains. However, several states, including Karnataka and Tamil Nadu, have criticized the government, accusing it of prioritizing political considerations over the welfare of marginalized beneficiaries of state welfare schemes.



- The OMSS allows the FCI to sell surplus food grains from the central pool to traders, retail chains, and bulk consumers through e-auctions. States are also permitted to procure food grains through the OMSS, beyond their allotted quantities from the central pool, for distribution to beneficiaries under the National Food Security Act (NFSA).
- However, the recent decision has prevented states from accessing the OMSS supplies, thereby limiting their ability to fulfil their obligations towards welfare schemes that rely on these additional procurements.

II. Understanding the Open Market Sale Scheme (OMSS)

- The Open Market Sale Scheme (OMSS) is a mechanism implemented by the FCI to sell surplus food grains, primarily wheat and rice, from the central pool in the open market.
- Through periodic e-auctions, the FCI offers these food grains to open-market bidders, including traders, retail chains, and bulk consumers, at pre-determined prices.
- The OMSS aims to balance the surplus stock of food grains and stabilize prices while ensuring wider accessibility.

III. Revision of OMSS by the Centre

- The recent revision of the OMSS by the Centre involves reducing the quantity that a single bidder can purchase in a single bid. Previously, a buyer could acquire up to 3,000 metric tonnes (MT) per bid, but this has now been modified to a range of 10-100 metric tonnes. The FCI claims that this reduction aims to accommodate more small and marginal buyers, enhancing the scheme's reach and promoting competition.
- By allowing smaller bids, the revised OMSS intends to break the monopolistic control of bulk buyers and create a more level playing field. The expectation is that increased participation from smaller buyers will foster competitive pricing and prevent price distortions in the retail market.
- However, the effectiveness of this approach remains a subject of debate, as it may pose logistical challenges and potentially disrupt the existing procurement system.

IV. FCI's Perspective and Obligations

- The Food Corporation of India (FCI) justifies the revision of the OMSS and the exclusion of states from procurement auctions based on its obligations and concerns regarding the welfare of marginalized beneficiaries and common consumers.
- The FCI emphasizes its commitment to distributing food grains to around 80 crore marginalized beneficiaries under the National Food Security Act (NFSA). In addition to meeting these obligations, the FCI also acknowledges its responsibility to consider the concerns of the 60 crore common consumers who are affected by retail prices.
- The FCI contends that the reduction in the quantity a bidder can purchase under the OMSS aims to ensure a wider reach and better accessibility of the scheme. By accommodating more small and marginal buyers, the FCI aims to break the dominance of large buyers and promote fair competition.

V. State Reactions and Implications

- In Karnataka, the Anna Bhagya scheme, which guarantees rice to marginalized families, was a key promise of the Congress government. Leaders from the Congress party have accused the Centre of conspiring to undermine the state government's poll guarantee by restricting the supply of rice necessary to implement the scheme effectively.
- Similarly, Tamil Nadu has been affected by the discontinuation of OMSS supplies. In response, the state government is actively exploring alternative options to procure 50,000 tonnes of rice from government agencies other than the FCI. The disruption in OMSS supplies has forced Tamil Nadu to seek alternative sources to maintain its commitment to providing rice to all ration card holders.

Way Forward:

In light of the current situation, it is crucial to find a balanced approach that addresses the concerns of both the Centre and the states. A collaborative effort is needed to ensure the

smooth functioning of the OMSS while safeguarding the welfare of marginalized beneficiaries.

Conclusion:

The recent developments surrounding the Open Market Sale Scheme (OMSS) have sparked a debate between the Centre and various states. The imposition of quantity restrictions and the exclusion of states from OMSS auctions have raised concerns about the impact on welfare schemes and marginalized beneficiaries. All stakeholders need to engage in constructive dialogue and find a way forward that promotes transparency, efficiency, and inclusivity in the procurement and distribution of food grains.

Own Standards To Assess Socio-Economic Progress

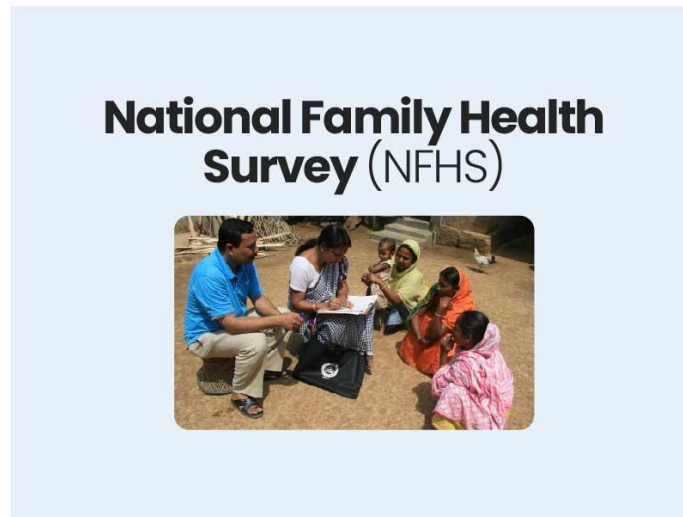
Context:

The Union government's decision to abandon what it deems the universal worldwide data metrics used to gauge the socioeconomic development of the nation has divided health campaigners.

National Family Health Survey

- **Purpose:** The NFHS is carried out in India to collect thorough data on all facets of family welfare and health to inform programme planning, policy formulation, and assessment.
- **Partners in the ministry:** The survey is conducted by the International Institute for Population Sciences (IIPS), selected state agencies, and the Ministry of Health and Family Welfare, Government of India.
- **Survey Rounds:** The NFHS is periodically administered, usually with a few-year break between rounds. The NFHS-5 cutoff is the most recent round as far as I'm aware, and it started in 2019.
- **Data collection:** To assure representative data at the federal, state, and local levels, the survey uses a multi-stage, stratified sample approach. It gathers data by administering standardised questionnaires to eligible men and women (15-54 years old) chosen as part of the sample.
- **Topics covered:** The National Family Health Survey (NFHS) examines a wide range of health and demographic variables, including fertility, maternal and child health, nutrition, family planning methods, use of medical services, reproductive health, HIV/AIDS, and other relevant topics.
- **Data Analysis:** To produce reports, the gathered data is subjected to in-depth quality checks and analysis. The status, trends, and differences in health and family welfare indicators across various geographic locations and population subgroups are discussed in these publications.

- **Impact on Policy and Programmes:** The NFHS data is essential to the development of health and family welfare policies and programmes. The findings support the identification of important areas of attention, comprehension of the efficacy of current interventions, and development of evidence-based decisions for enhancing health outcomes.
- **Public Access:** The NFHS reports are made available to the general public, enabling academics, NGOs, and other interested parties to access the information and utilise it for advocacy, additional analysis, and study.



Points to Ponder:

- **Current Parameter:** India has been measuring its socio-economic progress using international data metrics based on global norms. These factors include stats on childhood stunting, the percentage of women in the labour force, and birth weight.
- **Anthropometric Measurements and Diversity:** India is a varied nation with notable regional differences in both anthropometric measurements and socioeconomic variables. According to the administration, the uniform worldwide standards do not adequately capture the diversity and unique circumstances of the nation.
- **Skewed Data and Anomalies:** According to the Indian government, skewed data and anomalies are caused by the adoption of international parameters. The socio-economic development indicators, according to their argument, are distorted by faulty adjustments and modelling techniques, giving an inaccurate picture of India's development.
- **Disagreements and Recalibration:** The Union Health Ministry has previously revised certain domain criteria. For instance, they created their method for calculating the burden of tuberculosis and challenged the World Health Organization's COVID-19 death modelling. Disagreements with international organisations have resulted from these recalibrations.
- **Criticism of Global Standards:** Objections to the Global Standards According to a working paper of the Economic Advisory Council to the Prime Minister, foreign organisations routinely underrate India's socioeconomic development. The research makes the case that these underestimates affect global indices as well as policy intervention feedback.
- **Importance of accurate data:** Accurate data is crucial since investment and trade decisions are increasingly based on environmental, social, and governance (ESG)

standards. The article emphasises the significance of trustworthy data in these areas and expresses worry regarding the accuracy of data at this time.

- **Perspectives from Health Activists:** Indian health campaigners have differing opinions on the subject. Some contend that rather than challenging the standards, the emphasis should be on enhancing the status of services and that international norms should be viewed as aspirational standards. They think that if given access to essential health and nutrition services, every child can meet world standards.
- **India-Specific Parameters Are Required:** Others agree that the standards should be changed to more accurately represent India's performance. They contend that India should create standards and guidelines that take into account the nation's diversity and unique socioeconomic circumstances. They think that by doing this, it will be possible to better accurately assess India's development and address some of its particular problems.

Exports Dip Again And Trade Deficit Hits 5-Month High

Context :

The trade imbalance in May increased to a five-month high of \$22.1 billion as India's exports of goods dropped 10.3% to \$34.98 billion while imports decreased at a slower 6.6% rate to \$57.1 billion.

Points to Ponder:

- In May, India's merchandise exports decreased by 10.3% to \$34.98 billion. Although it was a smaller reduction than April's dip of 12.6%, this represents the sixth decline in the previous eight months. Only 0.8% of May's exports were above April's six-month low.
- May imports decreased at a slower 6.6% annualised rate to \$57.1 billion from the previous month. When comparing May's imports to April's, which had a 15-month low level, imports rose sequentially by 13.8%.
- The difference between exports and imports, or the trade imbalance, grew to a five-month high of \$22.1 billion in May. The trade imbalance has now exceeded \$20 billion for the first time since December 2022.
- Geopolitical tensions and recessionary fears brought on by monetary tightening are blamed for the drop in exports in 2023. The reduction in consumer expenditure in developed countries affects India's export growth.



- In light of the World Trade Organization's revision of the annual growth rate of global trade upward, the Indian Commerce Ministry anticipates a resurgence of demand from July through August 2023.
- The first two months of the 2023–24 fiscal year have seen a cumulative reduction in merchandise exports of 11.4% and a decrease in the import bill of 10.24%. Comparing April and May to the same time last year, the trade gap shrank by almost 8%.
- Engineering goods, which have recently made up a sizable portion of India's exports, fell by more than 4% in May to \$9.3 billion. In the first two months of the fiscal year, the overall decline was 6%.

India Rises To 127 In The WEF Gender Index

Context :

In the World Economic Forum's (WEF) Gender Gap Report, 2023, India improved eight places from its ranking last year to 127th out of 146 nations in terms of gender parity.

World Economic Forum

➤ Background and Aims:

- The World Economic Forum (WEF) is a global non-governmental organisation with headquarters in Cologny, Geneva, Switzerland.
- German engineer Klaus Schwab established it in 1971.
- The organization's goal is to make the world a better place by working with influential business, political, academic, and other figures to affect regional, industrial, and global agendas.

Gender gap

India jumped eight spots to rank 127 in the Global Gender Gap Index, 2023. A look at how select countries fared

Rank	Country	Score	Rank change
1	Iceland	0.912	-
2	Norway	0.879	+1
59	Bangladesh	0.722	+12
103	Bhutan	0.682	+23
107	China	0.678	-5
115	Sri Lanka	0.663	-5
116	Nepal	0.659	-20
127	India	0.643	+8
142	Pakistan	0.575	+3



➤ Membership and Funding:

- Companies that are members of the WEF typically have global operations with annual revenues surpassing \$5 billion.
- It also receives government funding.

- There are about 1,000 businesses that are members of the organisation.

➤ **Annual Meetings:**

- The WEF is most known for its annual meeting, which is held in Davos, Switzerland.
- Around 3,000 people attend the gathering, including financiers, business executives, public officials, economists, famous people, and journalists.
- Global topics are explored over the event's 500 sessions, which can last up to five days.

➤ **Other Meetings:**

- In addition to Davos, the WEF holds additional meetings and regional conferences in the United Arab Emirates, India, China, Latin America, Africa, and East Asia.
- Additional yearly meetings are also held there as well as in China and the United Arab Emirates.

➤ **Initiatives:**

- The WEF publishes several reports on various subjects.
- To solve global concerns, it involves its members in sector-specific activities.
- The Global Competitiveness Report (1979), Global Information Technology Report (2001), Global Gender Gap Report, Global Risks Report, Global Travel and Tourism Report, Financial Development Report (2008), and Global Enabling Trade Report (2008) are among the annual economic reports produced by the Competitiveness Team. These studies assess a nation's readiness for IT, gender inequality, hazards, and trade facilitation initiatives.

Gender Gap Report, 2023

- The 17th edition of the **Global Gender Gap Index assesses gender parity across 146 countries**, allowing for meaningful cross-country analysis.
- A subset of 102 countries has been consistently included in every edition of the index since 2006, providing a substantial and consistent sample for time-series analysis.
- The **Global Gender Gap Index** utilizes a scale of **0 to 100 to measure gender equality**, with scores representing the progress made towards parity (closing the gender gap).
- **Comparing countries' scores enables the identification of effective policies** for closing gender gaps.
- The index presents the results for the year 2023, providing an up-to-date assessment of gender equality.
- **Trend analysis helps track the trajectory of progress towards gender parity over time.**
- The index incorporates new metrics partnerships and contextual data to gain deeper insights into gender equality.

Key Findings

- **Overall Gender Gap:** India had reduced the gender gap by 64.3%, a sign of progress towards achieving gender parity. But there is still a sizable gap to be filled.

- **Economic Opportunity and Participation:** In terms of economic opportunity and participation, India only attained 36.7% parity. As a result, there is a considerable gap between men and women in terms of their ability to access economic opportunities and their involvement in the labour force.
- **Political Empowerment:** With women making up 15.1% of Parliamentarians, India achieved political empowerment parity of 25.3%. Despite some advances, gender equality in political representation is still far from being achieved.
- **Women's Representation in Local Governance:** India, along with nations like Bolivia and France, attained a level of female representation in local governance of more than 40%. This shows that grassroots efforts to empower women are making progress.
- **sex ratio at Birth:** In India, the birth sex ratio saw an improvement of 1.9 percentage points. After more than ten years, this advancement helped gender parity rise. India's gender parity at birth is 92.7%, which is a little lower than the top-performing nations when compared to them.
- **Southern Asian Region:** The overall gender parity attained in the Southern Asian region—which includes India—was 63.4%. The fact that this is the second-lowest score among the eight regions evaluated in the report indicates that there is still a lot of work to be done to close gender gaps in the area.

RBI's riot provisions to aid borrowers

Context:

According to the Manipur administration, riots and other acts of violence have affected the entire State, harming people's ability to conduct business and maintain their way of life.

Role Of RBI in Riots and Natural Calamities

- Natural calamities like droughts, floods, and cyclones cause significant damage to human life and economic pursuits.
- Rehabilitation efforts are crucial, and commercial banks and cooperative banks play a developmental role in reviving economic activities. Banks must have a blueprint of action to provide relief and assistance quickly and efficiently.
- These instructions should be available to State Government authorities and District Collectors, ensuring clear communication among all parties involved.
- Commercial banks' credit assistance details will depend on the situation, operational capabilities, and borrowers' needs.
- Guidelines are recommended to enable uniform and concerted action, particularly for agriculturists, small-scale industrial units, artisans, small businesses, and trading establishments affected by natural calamities.

How was this implemented in Manipur?

- The State government has used a Reserve Bank of India (RBI) provision that is rarely used to grant relief to the impacted people and companies.
- The clause relates to loan restructuring and rescheduling, which is frequently used in places hit by natural disasters. This is a unique way to put the law and order provision to use.
- On June 21, Manipur's Chief Secretary, Vineet Joshi, issued an order indicating that various Deputy Commissioners had reported damage to citizens' homes and places of business as a result of the ongoing law and order crisis.



- Given the current situation, borrowers who have taken out loans are unable to repay them, and they have asked the State Level Bankers' Committee (SLBC) for assistance.
- The SLBC's discussion of the matter on June 9 shows that the pertinent authorities have thought about and evaluated it.
- Manipur is mentioned as being subject to Chapter No. 7 of the Reserve Bank of India's "Relief Measures by Banks in Areas Affected by Natural

Calamities) Directions, 2018" in the order made by the Chief Secretary.

- By citing this chapter, the governor of Manipur says that rioting and violence have spread throughout the entire state and are having an influence on both the economy and people's quality of life.

Sri Lanka To Restructure Its Domestic Debt

Context :

Before an exceptional weekend debate in Parliament on the government's plan to restructure its domestic debt, Sri Lanka will shut down its banks and financial sector for five days starting on Thursday.

What is the Economic condition in Sri Lanka?

- The greatest **economic downturn in Sri Lanka** since independence, the current crisis started in 2019.
- High inflation, nearly **depleted foreign exchange reserves, a lack of medical supplies, and rising costs for essential commodities are the hallmarks of the crisis.**
- **Tax reductions, money creation,** a shift in government policy in favour of organic farming, the 2019 Easter bombings, and the COVID-19 pandemic's effects are all factors that have contributed to the issue.



- Sri Lanka struggled to **pay its obligations** under its **foreign debt**, which resulted in a **sovereign default in April 2022.**
- The nation's foreign exchange reserves, which **were down to \$1.9 billion by March 2022,** weren't enough to pay off its foreign debt for the year.
- Economic troubles have been brought on by the crisis, and the government is finding it difficult to cover basic expenses.
- In September 2022, a United Nations report emphasised the role that officials' impunity for economic crimes and violations of human rights had in escalating the crisis.
- From \$1.7 billion in September 2022 to \$2.1 billion in February 2023, Sri Lanka's **foreign reserves climbed by 23.5%.**
- Despite this progress, Sri Lanka has stopped making payments on its **foreign obligations** and is still in danger of going bankrupt.
- The crisis is being tackled through **financial aid requests, economic changes, and the promotion of foreign direct investment.**

❖ Factors Triggering Economic Crisis in Sri Lanka

- Covid-19 Pandemic
- Decreased Government Revenues
- Soaring Inflation and High Cost of Living
- Lack of Foreign Reserves and Currency Depreciation
- Impact of Hambantota Port Project
- Russo-Ukrainian Conflict
- Agricultural Policy and Food Shortage

What is Debt Restructuring Plan proposed by Sri Lankan Government?

- To allow for a parliamentary discussion on the government's plan to restructure the country's domestic debt, **Sri Lanka plans a five-day closure of its banks and financial sector.**
- the government's **debt restructuring program** would be presented to the Cabinet and then to Parliament for approval. The government **aims to obtain a longer timeframe for loan repayment and potentially negotiate a reduction in the debt amount**
- Due to divergent views on the involvement of **multilateral creditors** and worries from **private creditors who hold Sri Lanka's foreign debt**, the **debt restructuring process** appears to be at a standstill. A key element in breaking the **impasse is China's participation**, as well as how multilateral creditors are handled.
- Concerns exist over the possible effects of domestic debt restructuring on people's retirement benefits and savings. Extending the loan term, changing the interest rate, or imposing a haircut are all examples of restructuring. Critics contend that these changes would hurt **the elderly**, who depend on **pensions, trust funds**, and perks like the **Employees' Provident Fund**. **Savings of people** have already declined significantly, and new changes may make the situation worse.

Centre plans 'market' scheme to promote sustainable living

Context:

The Environment Ministry has released a draught notification outlining a proposed "Green Credit Scheme" that would reward a variety of actions, such as afforestation programmes, water conservation, waste management, and the reduction of air pollution, by allowing people and organisations to produce "green credits." These credits may also be exchanged for cash via a system that has not yet been determined.

What Is The Scheme All About?

- An important step has been taken towards fusing environmental preservation with financial incentives with the release of the draught "Green Credit Programme Implementation Rules 2023" by the Ministry of Environment, Forestry, and Climate Change under the Environmental Protection Act of 1986.
- The generation and trade of green credits, a crucial element of the Mission LiFE initiatives, are proposed in this draught.

What are the Features of the scheme?

➤ Green credit generation

- By actively taking part in various initiatives, people and organisations can produce "green credits". These initiatives include water conservation initiatives, afforestation programmes, etc.
- Individuals and organisations that participate in these activities not only help to sustain the environment but also gain credits that may be exchanged for revenue.

➤ Developing a Trading Platform

- The government intends to create a domestic market platform where people and organisations can trade their earned green credits as part of the green credit programme.
- A robust market for sustainable acts will be encouraged by this platform, which will allow those who have earned credits to sell them to interested buyers and facilitate the transfer of environmental advantages.
- A good opportunity for entities to monetize their contributions to environmental protection is presented by the development of a tradable credit system.



➤ Process of Public Consultation

- The draught announcement of the Green Credit Programme's implementation regulations will be available for public

review and comments for 60 days to ensure transparency and gather useful feedback.

- Through this process, people, groups, and other interested parties can voice their concerns and provide recommendations, helping to shape the regulations' ultimate iteration.
- The MoEFCC will proceed with notifying the public of the formal rules after taking the public's feedback into account.

➤ **Budget Release and Development Schedule**

- Following Union Finance Minister Nirmala Sitharaman's inclusion of the programme in the 2023–24 budget, the Green Credit Programme was officially announced, demonstrating the government's dedication to supporting sustainable practices.
- The program's draught outline was subsequently produced by the Ministry of Environment, Forests, and Climate Change, which led to the recently announced draught implementation guidelines.
- The government's proactive commitment to developing a thorough framework for the Green Credit Programme is demonstrated by the schedule of five months.

What are the latest updates in the scheme?

- Eight areas or activities, for instance, are listed in the notification as potentially eligible for producing credits.
- They include the tree plantation-based green credit, which promotes activities for **increasing green cover through tree planting and related activities**; the **water-based green credit**, which promotes **water conservation, water harvesting, and water use efficiency/savings**, including the **treatment and reuse of wastewater**; the **sustainable agriculture-based green credit**, which enables **natural and regenerative agricultural practises and land restoration to improve productivity, soil health, and nutritional value**.