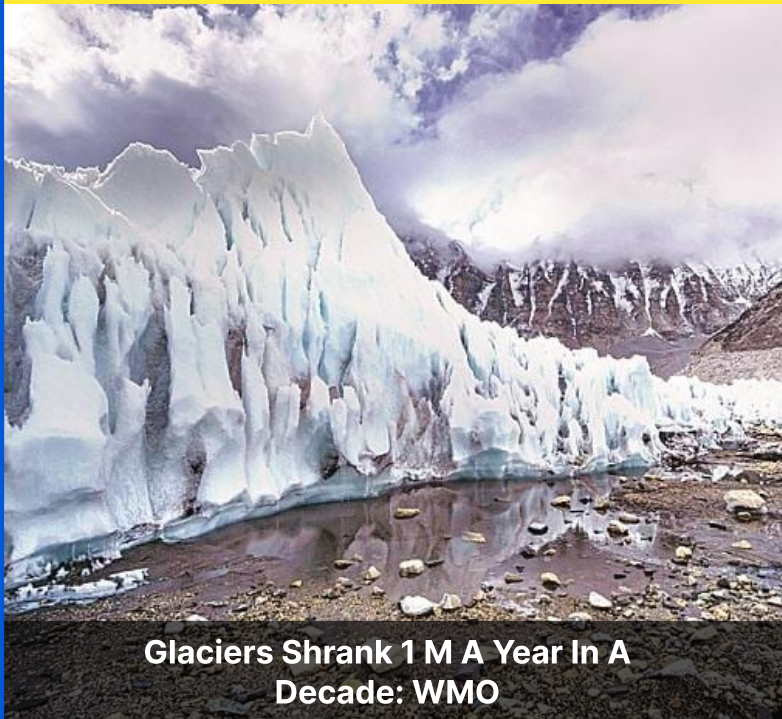


Monthly

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Current Affairs

December 2023



Glaciers Shrank 1 M A Year In A Decade: WMO



Article 370 Verdict and Its Implications



How India Can Become the Bank For The Global South



Need To Transform Agri-food System

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INDIAN POLITY

What is All India Judicial Service, Why It has Failed to Become a Reality

SOURCE: INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- Recently, The President of India has advocated for an "All-India Judicial Service" during the Supreme Court's Constitution Day celebration.

What is All India Judicial Service (AIJS)?

- The **All India Judicial Service (AIJS)** is a proposed centralized judicial service in India for the recruitment of judges, which would operate similarly to the All India Civil Services.
- This Concept is proposed under **Article 312 of the Indian Constitution** which allows for the **creation of an All-India Service if a resolution supported by at least two-thirds of the members of the Rajya Sabha is passed** declaring it necessary or expedient in the "national interest."
- According to the Constitution, the AIJS would **not include any post inferior to that of a district judge** (State Public Service Commissions and the concerned High Court).

All India Judicial Service (AIJS) – Historical Context

- The proposal for AIJS dates back to the **Law Commission's 1958 'Report on Reforms of Judicial Administration'**, which sought to address issues like variable pay and remuneration across states, expedite filling vacancies, and ensure standardized training nationwide.
- The concept was revisited in the **Law Commission Report of 1978**, primarily in response to the delays and backlogs of cases in the lower courts.
- The **Parliamentary Standing Committee on Personnel, Public Grievances, Law, and Justice, in its 15th Report**, supported the concept of a pan-Indian judicial service and drafted a bill for the same.

Supreme Court's Rulings and Proposals

- In **1992**, the Supreme Court directed the Centre to set up **AIJS** in the case '**All India Judges' Association (1) v. UOI**'. However, in 1993, it allowed the Centre to take initiatives on this issue at its discretion.
- In 2017, the Supreme Court suggested a "**Central Selection Mechanism**" and took suo-motu cognizance on the appointment of district judges, proposing a common examination system.

What is the Current System of Judge Selection?

- Candidates are selected through the **Provincial Civil Services (Judicial) exam**, commonly referred to as the **judicial services exam**.
- High Courts exercise jurisdiction over the subordinate judiciary in the state.
- This leads to variations in the recruitment process, training, pay, and remuneration across different states.

What is the Rationale Behind AIJS Proposal?

- Standardizing Recruitment and Training**
- Filling Vacancies and Efficiency**
- Diverse Representation:** AIJS could enhance diversity in the judiciary by increasing representation from marginalized social groups
- Addressing Disparities:** The AIJS could potentially address disparities in pay, **remuneration, and working conditions of judges** across different states.
- Improving Judicial Administration**
- Maintaining Constitutional Balance** While centralizing the recruitment process, it does not take away the powers of the states or the High Courts, as they would still play a role in the appointment process.

What are the Benefits of AIJS?

- Nationwide Talent Pool:** The system would enable the selection and nurturing of talented individuals from across the country, thereby creating a larger and more diverse talent pool for the judiciary.
- Reduced Delays and Case Backlogs:** With a more efficient recruitment process and standardized training, the AIJS could contribute to reducing delays and backlogs in the lower courts, which has been a persistent problem in the Indian judiciary.
- According to data from earlier this year, the backlog in the lower judiciary, which includes district and subordinate courts, was **3.8 crore cases**, accounting for the majority of the more than 4.4 crore cases outstanding across the Indian judiciary.
- Judge-to-population ratio:** In India, there are around 19 judges for 10 lakh people, despite the Law Commission's recommendation that there be at least **50 judges per 10 lakh people**.
- All of this speaks to the urgent need to fill vacancies quickly and increase recruitment to the lower courts, for which the Centre has long supported the establishment of the AIJS.

News Summary:

The All India Judicial Service (AIJS) is a proposed centralized system to recruit judges in India with standardized selection, diverse representation, and reduced case backlogs. However, it faces challenges related to autonomy, constitutional validity, disagreements with states, etc.

UPSC Previous Year Practice

Questions:

Prelims MCQs

Q. Rajyasabha has equal powers with Lok Sabha in (UPSC 2020)

- (a) The matter of creating new all India services
(b) Amending the Constitution
(c) The removal of the government
(d) Making cut motions

Answer: (a)

Q. Which of the following special powers have been conferred on the Rajya Sabha by the Constitution of India? (UPSC 2012)

- (a) To change the existing territory of a State and to change the name of a State
(b) To pass a resolution empowering the Parliament to make laws in the State List and to create one or more All India Services
(c) To amend the election procedure of the President and to determine the pension of the President after his/her retirement
(d) To determine the functions of the Election Commission and to determine the number of Election Commissioners

Answer: (b)

Q. Consider the following statements: (UPSC 2004)

- The highest criminal court of the district is the Court of District and Session Judge
- The District Judge are appointed by the Governor in consultation with the High Courts.
- A person to be eligible for appointment as a District Judge should be an advocate or a pleader of seven years' standing or more, or an officer in judicial service of the Union or the State.
- When the sessions judge awards a death sentence, it must be confirmed

- **Uniform Standards and Training:** A central body like the **UPSC** conducting exams would ensure uniform standards in the recruitment and training of judges, leading to a more consistent judiciary in terms of quality and performance.
- **Maintaining State and High Court Autonomy:** The proposal includes provisions to maintain the constitutional framework and the powers of states and High Courts, ensuring that the centralization does not impinge on the federal structure or judicial independence.

Challenges in Implementing AIJS

- **Lack of Consensus Among Stakeholders:** One of the primary reasons AIJS has not been implemented is the lack of consensus among the major stakeholders, including **state governments and High Courts**.
- Different states and their judiciary systems have varied opinions on the centralization of the judicial recruitment process.
- **Constitutional and Legal Challenges:** The Constitution of India places the appointment of **district judges in the domain of the states (Articles 233 and 234)**. This constitutional arrangement presents a significant challenge to the centralization of the judicial recruitment process envisioned in the AIJS.
- **Variation in State Laws and Judicial Requirements:** India's states have diverse legal systems and requirements, and a central recruitment process may not adequately address these specific needs. Tailoring the AIJS to accommodate these variations is a complex task.
- **Concerns over Autonomy of High Courts:** High Courts currently have significant control over the recruitment process of the lower judiciary in their respective states. The AIJS, which proposes a centralized mechanism, could be seen as infringing on the autonomy of these High Courts.
- **Differences in Opinion on Implementation Details:** Various aspects of the AIJS such as eligibility criteria, age limits, selection process, qualifications, and reservation policies have been points of contention. These differences in opinion have hindered reaching a unified approach for implementation.
- **Resistance to Change:** The judicial system in India has long been established with state-level recruitment processes. There might be resistance from various quarters to moving away from this traditional system to a more centralized one.
- **Balancing National Standards with Local Needs:** The AIJS aims to standardize training and recruitment across the nation. However, balancing these national standards with the specific local needs and conditions of each state presents a significant challenge.
- **Language concerns:** Courts up to and including District and Sessions Judges conduct business in the state language. AIJS officials would struggle to become fluent in the local language, impeding the administration of justice.
- **Local laws and customs issue:** AIJS does not address the issue of substantial variety in local laws, practices, and customs among states.

Conclusion

Despite multiple efforts and discussions, the All India Judicial Service remains unimplemented due to a lack of consensus among key stakeholders. The envisioned benefits of a diverse and efficiently recruited judicial system are yet to be realized, indicating a significant gap in judicial reform and representation in India.

by the High Court before it is carried out.

Which of the statements given above are correct?

- (a) 1 and 2
- (b) 2, 3 and 4
- (c) 3 and 4
- (d) 1, 2, 3 and 4

Answer: (d)

Mains PYQ:

Q. Critically examine the Supreme Court's judgement on 'National Judicial Appointments Commission Act, 2014' with reference to appointment of judges of higher judiciary in India. (2017)

RS Passes Post Office Bill; Parties Oppose 'Free Hand' to Officers

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news

The Rajya Sabha has recently passed the Post Office Bill 2023, a significant legislative reform aimed at overhauling India's postal services. This bill seeks to replace the outdated Indian Post Office Act of 1898 and modernize the functioning of India Post. In this article, we delve into the key features of the Post Office Bill, its significance, and the concerns it has raised.

Key Features of Post Office Bill

Replacement of the Indian Post Office Act, 1898: The new bill replaces the archaic Indian Post Office Act of 1898, which had been regulating India Post, a central government department. This replacement heralds a transformation in how postal services will be governed.

Removal of Exclusive Privileges: Under the new rules, the government will no longer enjoy exclusive privileges when it comes to conveying letters. The services offered by India Post will now be determined by a new set of rules.

Appointment of Director General of Postal Services: The Post Office Bill mandates the appointment of a Director General to lead India Post. This official will have the authority to regulate various aspects of postal services, including tariffs and the supply of postage stamps.

Government's Power to Intercept Mail: One notable feature of the bill is the government's power to intercept mail transmitted through India Post. This interception can be carried out on grounds related to state security and public order.

Exemption from Liability: The bill absolves India Post from liability for issues arising from its services unless such liabilities are explicitly prescribed through rules.

News Summary:

The Rajya Sabha passed the Post Office Bill 2023, which aims to modernize India's postal services. It grants new powers to regulate and intercept mail, raising concerns over privacy, oversight, and potential misuse, amidst a balance between modernization and citizens' rights.

MCQs

Question: Consider the following statements. (UPSC 2005)

1. The number of post offices in India is more than 1.5 lakh.
2. Bharat Sanchar Nigam Limited (BSNL) was formed in the year 1997.

Procedural Safeguards and Privacy Concerns: One of the concerns raised by critics is the lack of specific procedural safeguards for intercepting postal articles. This raises concerns about potential violations of freedom of speech and privacy.

Examination and Handling of Prohibited or Dutiable Postal Articles: The bill introduces changes in the handling of postal articles that are prohibited or subject to duty, allowing them to be transferred to customs or other specified authorities.

Removal of Offenses and Penalties: In alignment with the Jan Vishwas (Amendment of Provisions) Act, 2023, various offenses and penalties related to postal services, which were present in the 1898 Act, have been removed.

Indian Post Office Act of 1898

The Indian Post Office Act of 1898 was a comprehensive legislation that governed postal services in India. It established the framework for the functioning of postal services across the country, which were under the purview of the central government. This act granted the central government exclusive privileges over the conveyance of letters and other postal articles.

Jan Vishwas (Amendment of Provisions) Act, 2023

The Jan Vishwas (Amendment of Provisions) Act, 2023, is a significant legislative reform aimed at decriminalizing and rationalizing provisions in various central acts. This reform is intended to simplify and reduce criminal penalties across multiple laws, enhancing trust-based governance.

Significance of Post Office Bill

Modernization and Expansion of Services: The new legislation seeks to modernize the postal department, expanding its role beyond traditional mail delivery. Post offices are evolving into service delivery institutions, offering banking facilities alongside messenger services.

Increased Postal Network: Since 2014, thousands of new post offices have been opened, demonstrating a commitment to strengthening and expanding postal services across the country. This expansion is in stark contrast to previous trends when post offices were facing closures.

Concerns with Post Office Bill

Privacy Concerns: Section 9 of the bill grants postal officers the authority to intercept, open, or detain postal items in the interest of state security. This has raised significant concerns about privacy and potential surveillance.

Vague Definitions of Security Terms: The bill uses terms like "public emergency" and "public safety" to justify postal item interception, but these terms lack clear definitions, potentially allowing broad interpretations.

Potential for Misuse: The bill lacks specificity regarding which officers can use these powers and under what circumstances. This raises concerns about potential misuse for non-security-related purposes.

Lack of Oversight and Safeguards: Insufficient oversight mechanisms and safeguards to prevent abuse of powers have been noted, including the absence of judicial oversight.

Balancing Security and Privacy: The bill reflects the broader challenge of balancing national security needs with individual privacy rights, especially in a digital and interconnected world.

Political and Public Backlash: Opposition parties have expressed strong concerns about the bill, potentially leading to political and public backlash and necessitating future amendments or clarifications.

International Implications: Given the global nature of communication and postal services, the bill's provisions may have international implications, particularly concerning the privacy and security of international mail and parcels.

Technological Challenges: As postal services intersect with digital communication and e-commerce, integrating these new roles with traditional functions poses technological challenges under the new regulatory framework.

Conclusion

Despite concerns raised by opposition parties, the Post Office Bill 2023 has been passed in the Rajya Sabha. This bill represents a delicate balance between modernizing postal services and safeguarding citizens' privacy rights. The implications and implementation of this legislation will be closely monitored in the coming years.

3. Telecom Regulatory Authority of India (TRAI) was established in the year 2000.
Which of the statements given above is/are correct
(a) 1, 2 and 3
(b) 1 and 2
(c) 1 only
(d) 3 only
Answer: (c)

President's Actions During State Emergency Open To Judicial Scrutiny

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news

The recent Supreme Court ruling on the judicial scrutiny of the President's actions during a State Emergency, particularly in the context of Jammu and Kashmir following the abrogation of Article 370, is a significant development in Indian constitutional law.

Background of the Ruling

- **Context:** The ruling came in a case challenging the imposition of President's Rule in Jammu and Kashmir post the abrogation of Article 370.
- **Legal Precedent:** The decision draws from the landmark judgment in *S R Bommai vs Union of India*.

Supreme Court's Verdict on President's Powers

Key Aspects of the Ruling

- **Reasonable Nexus:** The Court emphasized that actions taken under Article 356 must have a reasonable connection to the objective of the proclamation.
- **Judicial Review:** The ruling underscored that the exercise of power by the President during a State Emergency is subject to judicial scrutiny.
- **Burden of Proof:** The individual challenging the President's actions must initially demonstrate a prima facie case of malafide or extraneous exercise of power.

Application to Jammu and Kashmir Issue

- **Scrutiny of President's Objectives:** The Court allowed for questioning the motives behind the President's actions, particularly regarding the special status of Jammu and Kashmir.
- **Validation of Article 370 Abrogation:** The Court upheld the President's power to abrogate Article 370 while the state was under President's Rule.

President's Rule: Understanding the Concept

Constitutional Provisions

- **Article 355:** Mandates the Centre to ensure governance of a state in line with the Constitution.
- **Article 356:** Allows the President to proclaim emergency in a state if the state's governance cannot be carried on per the Constitution.

Grounds for Imposition

- **Article 356 and 365:** Allow for State Emergency if there's a failure of constitutional machinery or non-compliance with central directives.

Consequences of President's Rule

- **Governance Shift:** The state's administration shifts to the Governor, representing the President.
- **Legislative Powers:** Parliament assumes the powers of the state legislature.

Duration and Approval

- **Parliamentary Approval:** Required within two months and can extend up to three years under certain conditions.
- **44th Amendment Limitations:** Introduced constraints on the extension of President's Rule beyond one year.

The SR Bommai Case: Background and Verdict

Background

- **Dismissal of Karnataka Government:** The case revolved around the 1989 dismissal of the Janata Dal government in Karnataka.

Supreme Court's Verdict

- **Judicial Review Upheld:** The proclamation of President's Rule was deemed subject to judicial review.
- **Limits on President's Power:** The power to dismiss state governments is not absolute and requires Parliamentary approval.

Impact of the Ruling

- **Autonomy of States:** Reinforces the autonomy of states within the federal structure.
- **Reduced Frequency of President's Rule:** Post-1994, there has been a notable decrease in the invocation of Article 356.

Conclusion

News Summary:

Recent Supreme Court ruling establishes judicial scrutiny over the President's actions during State Emergencies, emphasizing a reasonable nexus to objectives and highlights the balance between federal autonomy and central power.

UPSC Previous Year Practice Questions

1. **Legal and Political Factors Affecting Article 356:** "Account for the legal and political factors responsible for the reduced frequency of using Article 356 by the Union Governments since the mid-1990s." (GS2 2023)

MCQs

Question: Which of the following is/are the exclusive power(s) of Lok Sabha?

1. To ratify the declaration of Emergency
2. To pass a motion of no-confidence against the Council of Ministers
3. To impeach the President of India

Select the correct answer using the code given below: (UPSC CSE 2022)

- a. 1 and 2
- b. 2 only
- c. 1 and 3
- d. 3 only

Answer: (b)

Question: Which of the following are the discretionary powers given to the Governor of a State?

1. Sending a report to the President of India for imposing the President's rule
 2. Appointing the Ministers
 3. Reserving certain bills passed by the State Legislature for consideration of the President of India
 4. Making the rules to conduct the business of the State Government
- Select the correct answer using the code given below. (UPSC CSE 2014)
- (a) 1 and 2 only
 - (b) 1 and 3 only
 - (c) 2, 3, and 4 only
 - (d) 1, 2, 3 and 4

Answer: (b)

The Supreme Court's decision marks a critical moment in ensuring the balance of power between the Centre and states and upholding the judicial review of executive actions during a State Emergency.

Types of Emergencies

- **National Emergency (Article 352):** Proclaimed in cases of war, external aggression, or armed rebellion.
- **State Emergency (Article 356):** Imposed when state governance cannot be carried on as per the Constitution.
- **Financial Emergency (Article 360):** Declared when financial stability or credit of India or any part is threatened.

Judicial Review and its Significance

- **Definition:** Judicial review is the judiciary's power to examine the constitutionality of legislative and executive actions.
- **Implications:** It ensures that the use of emergency powers adheres to constitutional principles.

Article 370 Verdict and its Implications

SOURCE: INDIAN EXPRESS

PRIORITY: HIGH

Why in the news

The Supreme Court of India's endorsement of the constitutional changes in Jammu and Kashmir, particularly the abrogation of Article 370, has significant implications both domestically and internationally. This decision has sparked various reactions globally and poses various challenges and opportunities.

Historical Background of Article 370

- Initially drafted by N Gopalaswami Ayyangar, Article 370 was incorporated in 1949, granting special status to Jammu and Kashmir. It stemmed from the Instrument of Accession signed in 1947 by the region's ruler, Hari Singh, aligning the state with India post-Pakistan's invasion.

Supreme Court's Verdict on Article 370

- **Nature of Article 370:** Clarified as a temporary provision in Part XXI of the Constitution.
- **Constitutional Validity:** Upheld the presidential proclamations from 2019 that ended Article 370.
- **Reorganization Act:** Validated the Jammu and Kashmir Reorganisation Act, 2019, bifurcating the state into two Union Territories.
- Supreme Court's Key Rulings on Jammu and Kashmir

1. Lack of Sovereignty

- The Supreme Court (SC) emphasized that Jammu and Kashmir (J&K) did not require a merger agreement to surrender its sovereignty. Article 370(1) applied Article 1 of the Indian Constitution without modification, and Section 3 of the J&K Constitution explicitly declared it an integral part of India. Section 147 of the Indian Constitution further solidified this provision's absolute nature.

2. Temporary Nature of Article 370

- The SC highlighted that Article 370 was categorized among temporary provisions in the Constitution. It underscored that the Instrument of Accession explicitly applied Article 1 to J&K, affirming its status as an integral part of India.

3. Constitutional Validity of Proclamations Under President's Rule

- The court upheld proclamations during President's rule, referencing the 'SR Bommai v Union of India' case. It clarified that the Governor (or President in J&K's case) could assume state legislative roles, subject to judicial scrutiny.

4. Inoperativeness of the J&K Constitution

- The SC ruled that the J&K Constitution, which applied specific provisions of the Indian Constitution, was no longer necessary. The comprehensive application of the Indian Constitution rendered the State's Constitution inoperative.

5. Validation of the 2019 Jammu and Kashmir Reorganisation Act

- The court upheld the Jammu and Kashmir Reorganisation Act, 2019, which created the Union Territory of Ladakh. It clarified that the State legislature's views on reorganization were recommendatory, not binding on Parliament.

6. Parliament's Authority During President's Rule

- The Chief Justice clarified that Parliament's power during President's rule extended to executive actions. Many decisions made by the Union Government on behalf of the State Government were not subject to challenge to prevent chaos and uncertainty.

7. Call to Restore Statehood and Conduct Elections

- The court urged the early restoration of J&K's statehood and ordered legislative assembly elections by September 30, 2024.

8. Establishment of a Truth and Reconciliation Commission for Human Rights

- The SC recommended the establishment of a "truth and reconciliation Commission" similar to South Africa's model. This commission would investigate human rights violations by both

News Summary:

The Supreme Court's endorsement of Article 370's abrogation in J&K offers integration opportunities but raises concern about constitutionality, regional autonomy, and international reactions.

UPSC Previous Year Practice

Question

Q. To what extent is Article 370 of the Indian Constitution, bearing marginal note "Temporary provision with respect to the State of Jammu and Kashmir", temporary? Discuss the future prospects of this provision in the context of Indian polity. **(2016)**

Q. Analyze internal security threats and transborder crimes along Myanmar, Bangladesh and Pakistan borders including Line of Control (LoC). Also discuss the role played by various security forces in this regard. **(2020)**

Q. The banning of 'Jamaat-e-islami' in Jammu and Kashmir brought into focus the role of over-ground workers (OGWs) in assisting terrorist organizations. Examine the role played by OGWs in assisting terrorist organizations in insurgency affected areas. Discuss measures to neutralize the influence of OGWs. **(2019)**

state and non-state actors within a time-bound process, addressing crucial issues in Jammu and Kashmir.

Pro Arguments for Abrogation of Article 370

- **National Integration:** Enhances the complete integration of Jammu and Kashmir into the Indian Union.
- **Security and Counter-terrorism:** Aids in combating terrorism and separatism in the region.
- **Economic Development:** Opens avenues for investment, tourism, and infrastructural development.
- **Social Justice:** Brings marginalized communities under the ambit of central laws, ensuring equal rights.

Con Arguments Against Abrogation

- **Constitutional Challenges:** Questions regarding the legal process of abrogation, especially without the J&K Constituent Assembly's consent.
- **Federalism Issues:** Concerns about the erosion of the federal structure and regional autonomy.
- **Regional Identity and Harmony:** Fears of losing the unique cultural identity of Jammu and Kashmir.
- **Political and Social Unrest:** Potential for increased separatism and radicalization in the region.

International Reactions

- **Pakistan's Opposition:** Strong condemnation and severance of diplomatic ties.
- **Islamic World Response:** Mixed reactions with UAE viewing it as India's internal matter, while Turkey and Malaysia criticized the decision.
- **Western Powers:** Expressed concerns over human rights while recognizing India's sovereignty.
- **Russia's Support:** Backed India's decision as an internal matter.
- **China's Concern:** Opposed the creation of the Union Territory of Ladakh, citing territorial sovereignty issues.

India's Diplomatic Efforts Post-Abrogation

- **Engagement with China and Pakistan:** Highlighted mutual sensitivity to core concerns.
- **UNSC Diplomacy:** Successful in preventing formal discussion at the UNSC.
- **Bilateral Dialogues:** Emphasized the internal nature of the decision in talks with key global leaders.
- **Public Diplomacy:** Communicated the stance of internal matter and necessity for no external interference.

Challenges Post-Abrogation

- **Security Concerns:** Managing internal security and counter-terrorism efforts.
- **Economic Integration:** Ensuring effective implementation of development initiatives.
- **Political Stability:** Addressing the legitimacy crisis and promoting inclusive political dialogue.
- **Human Rights and Social Fabric:** Safeguarding the rights and cultural identity of local populations.

Way Forward

- **Focusing on 3Es:** Education, employment, and employability to uplift Kashmir.
- **De-radicalization Initiatives:** Targeted programs to prevent youth radicalization.
- **Gradual Removal of AFSPA:** In areas returning to normalcy, consider lifting the Armed Forces (Special Powers) Act.
- **Inclusive Economic Development:** Implementing affirmative policies for regional growth.

Conclusion

The Supreme Court's decision on Article 370 upholds the sovereign integrity of India while presenting challenges and opportunities. It calls for a balanced approach in managing national security, regional identity, and democratic values.

What is article 370?

Article 370 granted special status to Jammu and Kashmir, allowing it autonomy over most matters except defense, foreign affairs, and communications. It was introduced as a temporary provision in the Indian Constitution in 1949.

What does the abrogation of Article 370 signify?

The abrogation signifies the removal of the special status of Jammu and Kashmir, leading to its full integration into the Indian Union and its bifurcation into two Union Territories.

What is the Jammu and Kashmir Reorganisation Act, 2019?

The Act, passed by the Indian Parliament, bifurcated the state of Jammu and Kashmir into two Union Territories: Jammu and Kashmir, with a legislature, and Ladakh, without a legislature.

Chief Election Commissioner And Other Election Commissioners (Appointment, Conditions Of Service And Term Of Office) Bill 2023

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

In a recent development, the President of India granted assent to the Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions Of Service And Term Of Office) Bill 2023, which had received parliamentary approval in December 2023. This bill aims to revamp the process of appointing the top election officials, including the Chief Election Commissioner (CEC) and Election Commissioners (ECs). This article explores the salient provisions of the Act, associated concerns, and the broader context of electoral governance in India.

The Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions Of Service And Term Of Office) Act 2023:

Appointment Process:

- The CEC and ECs will now be appointed by the President of India based on the recommendations of a selection committee.
- The committee comprises the Prime Minister, a Union Cabinet Minister, and the Leader of the Opposition or the Leader of the largest opposition party in the Lok Sabha.
- Notably, the Chief Justice of India, previously part of the panel, has been excluded.

Search Committee:

- A search committee led by the Cabinet Secretary will propose a panel of names to the selection committee.

Eligibility Criteria:

- Appointees must possess integrity, expertise in election management, and have served as Secretary (or equivalent) to the government.

Salary and Conditions:

- The CEC and ECs will receive salaries and service conditions equivalent to those of the Cabinet Secretary, a departure from the previous benchmark of a Supreme Court Judge.

How CECs & ECs were appointed earlier?

- The Constitution does not specify a legislative process for appointing the CEC and ECs.
- The President makes appointments based on the advice of the Union Council of Ministers, led by the Prime Minister.

Removal Process:

- The Act retains Article 324(5), allowing the CEC's removal akin to that of a Supreme Court Judge.
- ECs can only be removed upon the CEC's recommendation.

Protection for CEC And ECs:

- The Act offers legal safeguards to shield the CEC and ECs from civil or criminal proceedings related to their official duties.

Term and Reappointment:

- Officeholders will serve for six years or until they reach the age of 65, whichever comes first.
- Reappointment is not permitted, except when an EC is promoted to the position of CEC, ensuring an overall tenure not exceeding six years.

The Election Commission of India: Constitutional Provisions and Powers

- **Constitutional authority:** Article 324 entrusts the EC with superintendence, direction, and control of elections to various offices.
- **Composition:** The EC comprises three members, including the CEC.
- **Term:** Members serve for six years or until age 65.
- **Administrative and Quasi-judicial Powers:** The EC administers electoral rolls, recognizes parties, and exercises quasi-judicial functions.
- **Advisory Role:** The EC advises the President and Governor in post-election disqualification proceedings of MLAs and MPs.

Concerns Associated with the Act

Government Influence in Selection:

- Apprehensions exist that the selection process may be skewed in favor of the government, raising concerns about the Commission's independence.

Lack of Independence:

- The Act's provision allowing the committee's recommendations, even during vacancies, could potentially grant the government excessive influence, eroding diversity and independence.

Salary and Service Conditions:

- Linking the CEC's and ECs' salaries to the Cabinet Secretary's pay, determined by the government, may dilute their authority and stature compared to that of Supreme Court judges.

Limiting Diversity:

- Restricting eligibility to senior bureaucrats may exclude potentially suitable candidates, particularly as CECs and ECs perform quasi-judicial functions.

News Summary:

The Chief Election Commissioner and Other Election Commissioners Act 2023 amends the selection process for top election officials by introducing a selection committee, revised criteria, and safeguards. However, it raises concerns about government influence, reduced diversity, and implications for independence.

Lack of Parity:

- The Act allows the CEC's removal to mirror that of a Supreme Court Judge, while ECs can only be removed with the CEC's recommendation, raising fairness and parity concerns.

Alignment with Constitutional Intent:

- Critics question whether the amended Act aligns with the Constituent Assembly's vision of an independent body overseeing elections.

Removal:

- CECs and ECs can resign or be removed before their term ends.
- The CEC can be removed through a process akin to a Supreme Court Judge's removal, involving Parliament.
- ECs can be removed solely on the CEC's recommendation.

International Models for Appointment of Election Commissioners

- **United Kingdom:** Candidates require approval by the House of Commons.
- **United States:** Appointments undergo confirmation by the Senate to ensure checks and balances.
- **South Africa:** Emphasizes diversity with input from the Constitutional Court President, Human Rights Court representatives, and gender equality advocates.

Conclusion

The Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions Of Service And Term Of Office) Act 2023 introduces changes to the appointment and service conditions of election commissioners. While these amendments aim to streamline the process, concerns about government influence, lack of diversity, and their impact on the Commission's independence loom large. The effective functioning of this constitutional body hinges on striking the right balance between political accountability and electoral autonomy.

SCs Were Never Counted In Andaman And Nicobar, Now A Parliamentary Committee Sits Up And Takes Notice

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- Recently, the Parliamentary Committee on Welfare of Scheduled Castes and Scheduled Tribes, called for a special panel to evaluate the issues faced by the Scheduled Castes (SCs) and ensure their representation in services in the islands.
- The Committee noted that SCs had a significant presence in the Andaman and Nicobar Islands and should be considered for welfare schemes and service matters.

**What are the findings and recommendations of the Parliamentary Committee on Welfare of Scheduled Castes and Scheduled Tribes?**

- **Panel to evaluate issues of the SCs and STs:** It called for the creation of a special panel to evaluate the issues faced by the SCs in the Andaman and Nicobar Islands.
 - The Union Territory administration was directed to form a special panel to study the issues of representation and welfare schemes and report the action taken at the earliest.
 - It found that the Centre and the Union Territory administration clubbed the Dalit population with the Other Backward Classes (OBCs).
- **Inclusion in welfare and service matters:** It found that the Andaman and Nicobar Islands hosted a significant presence of Scheduled Castes.
 - It suggested that SCs should also be considered for welfare schemes and represented in the services.

The Parliamentary Committee on Welfare of Scheduled Castes and Scheduled Tribes suggested a special panel to evaluate issues faced by Scheduled Castes in Andaman and Nicobar Islands. It urged their inclusion in welfare schemes, highlighting wrong categorization issues and the need for data collection on their population.

UPSC Previous Year Practice Questions

- Q.1)** What are the two major legal initiatives by the State since Independence, addressing discrimination against Scheduled Tribes (STs)? (GS1 2017)
- Q.2)** Why are the tribals in India referred to as the Scheduled Tribes? Indicate the major provisions enshrined in the Constitution of India for their upliftment. (GS1 2016)
- Q.3)** Performance of welfare schemes that are implemented for vulnerable sections is not so effective due to absence of their awareness and active involvement at all stages of policy process – Discuss. (GS2 2019)
- Q.4)** Given the diversities among the tribal communities in India, in which specific contexts should they be considered as a single category? (GS1 2022)

MCQs

- **Wrong categorization:** The Committee noted that although no official census had recorded an SC population on the islands, some small populations of SCs live in Port Blair.
- Moreover, the Constitution (SC) Order has never listed any community as SC in the islands, which was recognized as a vital problem by the erstwhile National Commission for Scheduled Castes and Scheduled Tribes (NCSCST) in 1999.
- Therefore, the committee recommended that steps should be taken to ensure they can access government schemes adequately.
- **Migrants:** The Scheduled Caste population, concentrated in and around Port Blair, are mostly migrants from Tamil Nadu, Kerala, and Andhra Pradesh.

What are the challenges ahead of the committee's recommendations?

- The administration lacks information on the Scheduled Castes in the islands including their origins and socio-economic status with respect to other communities.
- The information will have to be collected in order to assess whether it was necessary to create an SC list for the UT.
- This can only be done by Parliament and notified by the President.
- The 2001 Census and 2011 Census have both not recorded an SC population on the islands.
- Parliament was told by the Union government in 2015 that there was no SC population on the island.

Reservations in the Union Territory

- In 1999, The NCSCST claimed that the people it was referring to as Scheduled Castes were refugees from Bangladesh, who had been resettled on the islands by the Refugee Relief and Rehabilitation Department.
- The Andaman and Nicobar Commission for Other Backward Classes observed that these OBCs would have been classified as SCs if they had been in West Bengal.
- It recommended 38% reservation for the OBCs in the UT since the SC population was clubbed with the OBC category and the Bengali settler.
- The reservation which would otherwise have gone to the SCs would be added to the 27% prescribed for OBCs as per the Indira Sawhney judgment.
- The OBC Commission recommended that if any of these communities were later classified as SCs, then any reservations for them should be taken out from the 38% already assigned to OBCs in the UT.
- The Fifth Report of the erstwhile NCSCST (1998-99) indicated that it had attempted to draw the attention of the Census department and local administration to the issues of the SCs in the UT.

Parliamentary Committee on Welfare of Scheduled Castes and Scheduled Tribes

- **Membership:** The Committee consists of 30 members.
- 20 members of the Lok Sabha elected from among its members by proportional representation
- 10 members of the Rajya Sabha elected from its members
- **Chairperson:** The Chairperson of the Committee is appointed by the Speaker of the Lok Sabha from among the members of the Committee.
- **Eligibility:** Ministers are not eligible to be members of the Committee.
- If a member becomes a minister, his membership of the committee is forfeited.
- **Term:** The Committee serves for a term of one year.
- **Functions:**
- Consider reports submitted by the National Commission for Scheduled Tribes and report action to be taken by the Union government
- Report the measures taken by the Union government on its suggestions
- Examine measures taken by the Union Government to secure the representation of SCs and STs in public employment
- Report on the working of welfare schemes for SCs and STs in Union territories
- Examine other matters referred to the Committee by the Speaker
- **Powers:**
- It has the power to call for reports from Ministries, Departments, Nationalized banks, and PSUs in respect of subjects taken by the Committee
- It may appoint sub-committees to conduct detailed studies and conduct study tours to understand the problems faced by the SCs and STs.

To learn more about Parliamentary Committees, click the [link](#).

Andaman and Nicobar Islands

- There are 265 large and tiny islands in this archipelago located in the **Bay of Bengal**.
- The Andaman and Nicobar Islands are located between 92° 10' and 94° 15' east and between 6° 45' and 13° 45' north.
- North, Middle, and South are the three main islands that make up the Andaman Islands.
- Little Andaman and South Andaman are separated by the **Duncan passage**.

Question: At the national level, which ministry is the nodal agency to ensure effective implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006? (UPSC 2021)

- (a) Ministry of Environment, Forest and Climatic change.
- (b) Ministry of Panchayat Raj
- (c) Ministry of Rural Development
- (d) Ministry of Tribal Affairs.

Answer: (d)

Question: In which one of the following Union Territories, do people of the Onge tribe live? (UPSC 2004)

- (a) Andaman and Nicobar Islands
- (b) Dadra and Nagar Haveli
- (c) Daman and Diu
- (d) Lakshadweep

Answer: (a)

- **Ten Degree Channel** divides the Nicobar group of islands in the south from the Great Andaman group of islands in the north.
- Great Nicobar is the biggest of the Nicobar Islands.
- The majority of these islands are composed of tertiary sandstone, limestone, and shale and have a volcanic origin.
- The volcanic Barren and Narcondam Islands lie north of Port Blair.
- Coral reefs surround a few of the islands while most have dense forests.
- The highest peak is **Saddle Peak (737 m)** in North Andaman.
- **Major tribes of the Andamans:**
 - **Great Andamanese:** The Great Andamanese tribe is one of the most prominent tribes in the Andaman Islands. However, only around 50 members of the tribe remain. They are known for their distinct language.
 - **Onge:** The Onge tribe is considered the first tribe to have settled in the Andaman Islands with only about 100 remaining members. They are known for their unique hunting and fishing techniques.
 - **Jarwa:** The Jarwa are an isolated tribe that lives deep in the Andaman forests with very little contact with the outside world. They are famous for their hunting and gathering skills and their unique culture.
 - **Sentinelese:** The Sentinelese tribe is an isolated tribe that is fiercely protective of their territory. There is very little knowledge about their culture and way of life.
 - Other smaller tribes in the region include the Shompen and the Nicobarese.



The Bharatiya Nyaya Sanhita (BNS), 2023: A Comprehensive Overhaul of India's Criminal Justice System

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news

- The Bharatiya Nyaya Sanhita (BNS), 2023, recently passed in the Parliament, is set to replace the Indian Penal Code (IPC), 1860. This move marks a significant shift in India's legal landscape, aiming to modernize and make more relevant the country's criminal justice system.

Background

The Need for Change

- **Colonial Legacy:** The IPC, rooted in the colonial era, needed modernization to reflect contemporary societal norms and technological advancements.
- **Committees Recommending Reforms:** Various committees, including the Law Commission of India and the Malimath Committee, have emphasized the need for legal reform.
- **Constitutional Committee Formed:** In 2020, a committee led by Ranbir Singh was formed to recommend reforms, focusing on safety, security, and constitutional values.

Key Changes in Bharatiya Nyaya Sanhita

New Offences Introduced

1. **Mob Lynching:** Criminalization of mob lynching and hate-crime murders with severe penalties.
2. **Organised Crime:** Incorporating organized crime within the ambit of ordinary criminal law.
3. **Terrorism:** Bringing terrorism under ordinary criminal law.
4. **Attempt to Suicide:** Criminalizing attempts to suicide to restrain public servants.
5. **Promise to Marry:** Penalizing deceitful promises to marry.

News Summary:

The Bharatiya Nyaya Sanhita (BNS) replaces India's IPC, 1860, aiming for a modernized criminal justice system. It introduces new offences, deletes colonial-era laws, yet raises concerns about ambiguity and swift legislative process, emphasizing the need for clarity, victim support, rehabilitation, and inclusive reforms.

UPSC Previous Year Practice Question

Q. Mob violence is emerging as a serious law and order problem in India. By giving suitable examples, analyze the causes and consequences of such violence. (GS2 2015)

Q. Instances of President's delay in commuting death sentences has come under public debate as denial of justice. Should there be a time limit specified for the President to

Significant Deletions

1. **Unnatural Sexual Offences:** Repealing Section 377, decriminalizing homosexuality.
2. **Adultery:** Omitting the offence of adultery.
3. **Thugs:** Removing colonial-era provisions labeling certain tribes as criminals.

Other Important Changes

- **Gender Neutrality:** Introducing gender neutrality in certain laws.
- **Fake News:** Criminalizing the spread of false information.
- **Sedition:** Redefining sedition with a broader scope.
- **Community Service:** Introducing community service as punishment for petty offences.

The Rationale Behind BNS

Removing Colonial Imprints

- **Modern Legal Framework:** Transitioning from colonial laws to a system reflecting Indian ethos.

Incorporating Supreme Court Judgments

- **Reflecting Judicial Pronouncements:** Aligning laws with landmark judgments like the decriminalization of homosexuality.

Emphasis on Gender Neutrality

- **Reflecting Societal Changes:** Updating laws to represent contemporary gender perspectives.

Raised Concerns

Ambiguity and Potential Misuse

- **Vague Definitions:** Concerns over the misuse of broad definitions, especially in laws related to the state and sedition.

Continuation of Colonial Practices

- **Dependence on Harsh Punishments:** Retention of long-term imprisonments and the death penalty.

Parliamentary Process and Lack of Comprehensive Change

- **Rapid Legislative Passage:** The swift passing of the Bills without extensive legislative scrutiny.
- **Minimal Transformative Impact:** The retention of much of the original language and contents from the IPC.

Specific Provisions Under Scrutiny

- **Terrorism Laws:** The inclusion of terrorism in general penal law raises questions about its frequent invocation.
- **Marital Rape:** The non-criminalization of marital rape remains a significant concern.

Way Forward

Focusing on Modernization and Clarity

- **Updating Legal Provisions:** Ensuring laws are clear and reflect current societal values.

Adopting a Victim-Centric Approach

- **Strengthening Victim Rights:** Improving support, compensation, and participation in legal proceedings.

Emphasizing Rehabilitation

- **Rehabilitative Justice:** Balancing punitive measures with rehabilitation and reintegration.

Integrating Technology

- **Modernizing Legal Procedures:** Using technology for better investigation and evidence collection.

Enhancing Public Awareness

- **Educational Campaigns:** Informing citizens about their rights and responsibilities.

Inclusive Reforms

- **Stakeholder Involvement:** Encouraging participation from diverse groups in the reform process.

Conclusion

The Bharatiya Nyaya Sanhita represents a monumental step in reforming India's criminal justice system. While it addresses some longstanding issues, it also raises new concerns that need careful consideration and possible amendments. The future of the BNS will be shaped by its implementation and the ongoing dialogue among legal experts, policymakers, and the public.

accept/reject such petitions? Analyse. (GS2 2014)

Q. We are witnessing increasing instances of sexual violence against women in the country. Despite existing legal provisions against it, the number of such incidences is on the rise. Suggest some innovative measures to tackle this menace. (GS4 2014)

MCQs

Q. For which one of the following reforms was a Commission set up under the Chairmanship of Veerappa Moily by the Government of India? (UPSC 2008)

- (a) Police Reforms
- (b) Tax Reforms
- (c) Reforms in Technical Education
- (d) Administrative Reforms

Answer: (d)

Telecommunications Bill, 2023

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news

- The introduction of the Telecommunications Bill, 2023, marks a significant step in reforming India's telecommunications sector. Replacing the Indian Telegraph Act (1885), the Wireless

News summary:

The Telecommunications Bill, 2023, replaces colonial-era laws, aiming to

Telegraphy Act (1933), and the Telegraph Wires (Unlawful Possession) Act (1950), this bill aims to modernize the regulatory framework of the sector.

Objective of the Bill

- The Telecommunications Bill, 2023, seeks to overhaul India's colonial-era laws in telecommunications, simplifying the current complex licensing regime into a more streamlined authorization system.

Key Highlights of the Bill

Authorization System

- Simplification of Licensing:** The bill proposes a unified authorization process for over 100 types of licenses, registrations, and permissions.

Spectrum Allocation

- Auction Preference:** Auctions are the primary method for spectrum allocation, with administrative allocation reserved for specific sectors like defense, railways, and police.
- Spectrum Management:** Provisions for the government to retake unutilized spectrum and allow sharing, trading, and leasing of spectrum.

Voluntary Undertaking Mechanism

- Compliance Facilitation:** A new mechanism for the voluntary disclosure of inadvertent lapses and compliance facilitation.

Dispute Settlement Structure

- A tiered structure involving an adjudicating office, a designated committee of appeals, and the TDSAT for resolving disputes.

Biometric Authentication

- Fraud Reduction:** Mandatory biometric authentication of users to minimize fraud instances.

Powers of Interception

- Government Authority:** Central and state governments can intercept, disclose, and suspend telecom services in public emergencies, with certain exemptions.

Government Directives

- Public Interest Messaging:** The government can direct telecom services to transmit specific messages in the public interest.

TRAI Appointments

- Private Sector Eligibility:** The bill allows for the appointment of the TRAI chairperson from the private sector.

Broad Definition of Telecom Services

- Inclusive Definition:** The bill broadly defines telecom services, potentially covering various internet-based communications.

Updated Right of Way Laws

- Local Authority Empowerment:** Enhanced power to local authorities to adjudicate disputes, expected to expedite digital connectivity delivery.

Trusted Sources Regime

- Post-Conflict Regulations:** Incorporates measures to restrict imports of telecom equipment from hostile nations.

Spectrum Allotments for Satellite Internet Providers

- Facilitating Satellite Internet:** The bill supports spectrum allotments to providers like OneWeb and SpaceX's Starlink.

Challenges in Spectrum Allocation

Contention Points

- Auction vs. Administrative Allocation:** The debate between auctioning spectrum and administrative allocation remains contentious.
- Industry Recommendations:** Varied suggestions from private firms on the allocation and pricing of satellite spectrum.

Satellite Spectrum

- International Management:** Satellite spectrum, unlike terrestrial spectrum, is coordinated globally and requires alignment with international standards.

Regulation of Internet Services

Potential Overreach

- Regulating Online Platforms:** The wide definition of telecom services could extend the telecom department's regulatory reach to online platforms.

Industry Concerns

- Clarity and Efficiency:** Calls for consultations to refine the bill's efficiency and ensure clarity in its application.

Privacy and Transparency Concerns

streamline licensing, spectrum allocation, and dispute resolution. While it modernizes the sector, concerns arise over privacy, regulatory expansion, and the need for transparent consultation in shaping this crucial reform.

UPSC Mains Practice Questions

- Has digital illiteracy, particularly in rural areas, coupled with lack of ICT accessibility hindered socio-economic development? Examine with justification. (2021)
- "The emergence of the Fourth Industrial Revolution (Digital Revolution) has initiated e-Governance as an integral part of government". Discuss. (2020)
- "The aim of Information Technology Agreements (ITAs) is to lower all taxes and tariffs on information technology products by signatories to zero. What impact would such agreements have on India's interests?" (2014)

MCQs

Which of the following is/are the aims/aims of the "Digital India" Plan of the Government of India? (UPSC 2018)

- Formation of India's own Internet companies like China did.
- Establish a policy framework to encourage overseas multinational corporations that collect Big Data to build their large data centers within our national geographical boundaries.
- Connect many of our villages to the Internet and bring Wi-Fi to many of our schools, public places, and major tourist centers.

Select the correct answer using the code given below:

- (a) 1 and 2 only
(b) 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

Question: Consider the following statements. (UPSC 2005)

- The number of post offices in India is more than 1.5 lakh.
- Bharat Sanchar Nigam Limited (BSNL) was formed in the year 1997.
- Telecom Regulatory Authority of India (TRAI) was established in the year 2000.

Which of the statements given above is/are correct

- (a) 1, 2 and 3
(b) 1 and 2
(c) 1 only
(d) 3 only

Answer: (c)

Privacy Implications

- **Biometric Authentication:** Raises concerns about user privacy and the potential for state-sponsored surveillance.

Transparency and Consultation

- **Process Criticism:** The development of the bill has faced criticism for lack of transparency and inadequate public consultation.

Conclusion

The Telecommunications Bill, 2023, represents a crucial reform in the telecommunications sector, addressing spectrum allocation challenges and regulatory mechanisms. However, it also raises concerns about privacy, regulatory overreach, and the need for balanced governance to foster a competitive digital landscape.

Question: In India, which of the following review the Independent regulators in sectors like telecommunications, insurance, electricity, etc.? (UPSC 2019)

1. Ad Hoc Committees set up by the Parliament
2. Parliamentary Department Related Standing Committees
3. Finance Commission
4. Financial Sector Legislative Reforms Commission
5. NITI Aayog

Select the correct answer using the code given below:

- (a) 1 and 2
- (b) 1, 3 and 4
- (c) 3, 4 and 5
- (d) 2 and 5

Answer: (a)

NCRB Report 2022

SOURCE: INDIAN EXPRESS

PRIORITY: HIGH

Why in the news?

- This article discusses the findings of the National Crime Records Bureau's Crime in India 2022 Report which provides a comprehensive overview of the crime statistics in India.



What is the Crime in India Report?

- The Crime in India is published by the **National Crime Records Bureau (NCRB)** to provide data on reported crimes from across the country
- The NCRB report contains comprehensive information on
 - Cases registered and their disposal
 - Persons arrested and their disposal.
- It includes statistics on various categories of offenses such as financial and commercial crimes, murders, crimes against women, etc.
- **Method of preparation:** Information is collected from the police forces of 36 states and Union Territories.
 - Data for 53 cities with populations of more than 10 lakh each (as per the 2011 Census) are provided by respective state-level crime records bureaus.
 - The information is entered by state/UT police at the local police station and is then validated at the district, state, and NCRB levels.

What are the highlights of the Crime in India Report 2022?

Overall Crime Statistics:

News Summary:

The National Crime Records Bureau's Crime in India Report 2022 highlights a broad spectrum of crime statistics. Despite declines in overall crimes and the recognition of Kolkata as the safest city, increases in cybercrimes, suicides, crimes against women, children, and senior citizens raise concerns, reflecting diverse socio-economic challenges in India.

UPSC Mains Practice Questions

Q.1) What are the different elements of cyber security? Keeping in view the challenges in cyber security, examine the extent to which India has successfully developed a comprehensive National Cyber Security Strategy. (UPSC GS2 2022)

Q.2) E-governance, as a critical tool of governance, has ushered in effectiveness, transparency and accountability in governments. What inadequacies hamper the enhancement of these features? (UPSC GS2 2023)

Q.3) The Indian government has recently strengthened the anti-terrorism laws by amending the Unlawful Activities(Prevention) Act (UAPA), 1967, and the NIA Act. Analyze the changes in the context of the prevailing security environment while discussing the scope and reasons for opposing the UAPA by human rights organizations. (UPSC GS3 2019)

Q.4) Cyber warfare is considered by some defense analysts to be a larger threat than even Al Qaeda or terrorism. What do you understand by Cyberwarfare? Outline the cyber

- More than 58,00,000 cognizable crimes were registered under both the **Indian Penal Code (IPC) and Special & Local Laws (SLL)**.
- Registration of cases declined by 4.5% in comparison to 2021.
- **Crime Rate Decline:** The crime rate per lakh population dropped from 445.9 (2021) to 422.2 (2022).
- **Chargesheeting:** Kerala (96.0%), Puducherry (91.3%), and West Bengal (90.6%) had the highest charge sheeting rates under the IPC.

Safest City:

- **Kolkata was recognized as the safest city in India for the third consecutive year.**
- The city recorded the least number of cognizable offenses per lakh population among the metropolises.
- Pune and Hyderabad secured the second and third positions, respectively.

Cyber Crimes

- Reporting of cybercrimes rose by 24.4% to 65,893 cases in 2022 from 52,974 cases in 2021.
- 64.8% of these cases were cyber fraud, while 5.5% were extortion cases and 5.2% were cases of sexual exploitation.
- The crime rate in the cybercrimes rose to 4.8 in 2022 from 3.9 in 2021.

Murders

- In 2022, 28,522 murder cases were registered in India declining by 2.6% from the 29,272 cases registered in 2021.

Suicides

- The number of suicides increased by 4.2% to over 1.7 lakhs in 2022 when compared to 2021.
- The **suicide rate i.e number of suicides per lakh of the population rose by 3.3% in the same period.**
- The report identified the following as the major causes of suicides in the country:
 - Family Problems
 - Marriage Problems
 - Bankruptcy and indebtedness
 - Unemployment and professional issues
 - Illness
- **Statewise trends:** The highest number of suicides in the country were reported in **Maharashtra followed by Tamil Nadu, Madhya Pradesh, Karnataka, Kerala, and Telangana.**
- **Category-wise trends:**
 - Daily wage earners accounted for 26.4% of the total suicides in the country.
 - Agricultural workers and farmers were also disproportionately affected.
 - Unemployed persons accounted for 9.2% of all suicides reported in India in 2022.
 - Over 12,000 suicides reported in 2022 were of students.

Crimes against SCs and STs:

- There has been an overall increase in crimes and atrocities against people belonging to the SC and ST communities.
- There was an increase in such cases in 2022 in **Rajasthan, Madhya Pradesh, Chhattisgarh, and Telangana.**
- Madhya Pradesh and Rajasthan have regularly ranked among the top five states for crimes and atrocities against SCs and STs.
- Bihar, Uttar Pradesh, Odisha, and Punjab also witnessed higher levels of such crimes.

Crimes against women:

- In 2022, 4,45,256 cases of crimes against women were reported in India.
- This involved a 4% increase in these cases in comparison to 2021.
- The majority of crimes in this category were
 - Cruelty by Husband or His Relatives
 - Kidnapping & Abduction of Women
 - Assault on Women with Intent to Outrage Her Modesty
- A total of 31,516 rape cases were reported, with the highest numbers in Rajasthan, Uttar Pradesh, Madhya Pradesh, Maharashtra, and Haryana.

Crimes against children

- Cases involving crimes against children rose by 8.7% in 2022 as compared to 2021. These involved
 - Kidnapping and abduction cases (45.7%)
 - POCSO offenses (39.7%).

Crime against senior citizens:

- The number of cases of crimes against senior citizens rose from 26,110 cases to 28,545 cases, a rise of 9.3% between 2021 and 2022.

threats that India is vulnerable to and bring out the state of the country's preparedness to deal with the same. (UPSC GS3 2013)

Q.5) Q. Explain why suicide among young is increasing in Indian society. (UPSC GS)

MCQs

Question: With reference to India, consider the following statements:

1. Judicial custody means an accused is in the custody of the concerned magistrate and such accused is locked up in police station, not in jail.
2. During judicial custody, the police officer in charge of the case is not allowed to interrogate the suspect without the approval of the court.

Which of the statements given above is/are correct? (UPSC CSE 2021)

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Question: Consider the following statements about the Crime & Criminal Tracking Network & System (CCTNS).

1. It is implemented by the National Crime Records Bureau.
2. It also involves training of police personnel.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. None of the above

Answer: (c)

- The crimes mainly consisted of
 - Crimes related to hurt (27.3%)
 - Theft (13.8%)
 - Forgery, cheating, and fraud (11.2%).

Animal attacks

- There was a 19% increase in incidents involving people being injured or killed in animal attacks in 2022.
- The highest number of cases of animal attacks were in **Maharashtra followed by Uttar Pradesh, Odisha, Tamil Nadu, Chhattisgarh, and Madhya Pradesh.**
- The number of cases of animal/reptile and insect bites increased by 16.7%.
- **Rajasthan reported the most number of bite cases followed by Madhya Pradesh, Tamil Nadu, and Uttar Pradesh, respectively.**

Offenses against the state:

- Cases registered under the **Unlawful Activities Prevention Act (UAPA)** rose by 25% between 2021 and 2022.
- There was a significant drop in the number of cases under the Sedition section of the IPC.

Economic offenses:

- **Forgery, Cheating, and Fraud (FCF) accounted for the majority of cases (1,70,901 cases), followed by criminal breach of trust (21,814 cases) and counterfeiting (670 cases).**
- In 2022, government authorities confiscated fake Indian currency notes totaling over ₹342 crores.

Crimes Against foreigners:

- In 2022, the number of crimes registered against foreigners rose by 28% from 2021 to 192 cases in 2022.
- The majority of these victims were from Asia (56.8%) while 18% were from Africa.

Corruption cases

- 4,139 cases of corruption were recorded by the State Anti-Corruption Bureau (ACBs) in 2022 rising 10.5% from the 3,745 cases in 2021.

Environment-related offenses:

- Environment-related offenses decreased by 17.9% in 2022 from 64,471 (2021) to 52,920 cases (2022).

Human Trafficking:

- The number of cases involving human trafficking rose by 2.8% from 2,189 cases in 2021 to 2,250 in 2022.

What are the limitations associated with the report?

- **Registration of crimes not occurrence:** The data in the NCRB report records the incidence of registered crime, not the actual occurrence of crime.
 - This is a major limitation of the report as an increase in reporting of crimes may be due to higher awareness among the public and the police.
 - This does not necessarily mean there has been an increase in the actual incidence of crimes.
- **Undercounting of offenses:** The NCRB follows the **Principal Offence Rule** in counting cases.
 - According to this rule, in FIRs with more than one offense registered under it, only the offense that attracts the most severe punishment will be considered as the counting unit.
 - For example, if a case of murder with rape is charged, it would be counted as murder and not rape.
 - This would lead to an overall undercounting of rape crimes in the country if the victims were killed.
- **Local level inefficiencies and improper reporting:** Since the NCRB data is compiled at the local level, the overall report can be impacted by **inefficiencies and lacunae in data at the local level.**
 - For example, the FIR report would depend on the testimony provided by the witnesses to the police and the police officer's perspective of the situation.
 - In a farmer's suicide case, the immediate cause of a farmer's suicide may be a quarrel with his wife over money. Therefore, 'family problem' or poverty would be recorded as the cause in the report.
 - However, the underlying cause could have been indebtedness and financial difficulties caused by farm distress.
 - These **socio-economic causative factors of crimes have not been captured by the Bureau**, thereby impacting policymaker's understanding of the situation.
 - Moreover, people may be hesitant to come forward due to fear of the police or social norms, while the shortage of officials to collect data is another major limitation.

What is the National Crime Records Bureau?

- The NCRB was established in 1986 based on the recommendations of the **Tandon Committee, the National Police Commission (1977–1981), and MHA's Task Force (1985).**
- **Objective:**
 - Act as a repository of data on crime and offenders to help investigators link crime to the perpetrators.
- **Functions:**
 - In 2009, the NCRB was empowered to oversee, organize, and implement the **Crime and Criminal Tracking Network & Systems (CCTNS)** initiative.
 - It is responsible for maintaining the **National Database of Sexual Offenders (NDSO)** and regularly sharing relevant data with the States and UTs.
 - Acts as a **national warehouse for the fingerprint records of Indian and foreign criminals** and **assists in locating interstate criminals** through fingerprint search.
 - It is the **Central Nodal Agency to oversee the technical and administrative aspects of the "Online Cyber-Crime Reporting Portal,"**
 - Compile and publish reports on statistics of crime and deaths in the country
- **Subsidiary body:**
 - The NCRB has four divisions - **Crime and Criminal Tracking Network and Systems (CCTNS), Crime Statistics, Finger Prints, and Training.**
 - The **Central Fingerprint Bureau** under the NCRB is responsible for maintaining a national repository of all fingerprints in the country.
- **Reports:**
 - Crime in India
 - Accidental Deaths & Suicides
 - Prison Statistics
 - Reports on Missing Women and children in India.

ECONOMY

India's Defence Budgeting And The Point Of Deterrence

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- This article discusses India's defense spending and the role of indigenization in strengthening the country's defense forces.
- Adequate budgetary support will help improve the preparedness of India's defense forces amid various threats.



What are the challenges faced by India's defense sector?

- **Research and Development:** While India spent only 0.7% of its GDP on research and development, China spent 2.54% of its GDP on R&D in 2022.
- **Defense budget constraints:** There was a deficit of ₹13,746 crore from the requested amount in the defense capital acquisition budget of 2023-24.
 - Defense expenditure (revenue and capital), as a percentage of central government expenditure declined to 13.3% in 2022-23 from 16.4% in 2012-13.
 - Electoral motivations and the **"Guns versus butter model" (the government's dilemma to spend on national defense or domestic programs)** could also affect future Defense Budgets.
- **Forces deficit:** The squadron strength of the Indian Air Force has fallen over the years to 32 and could **take another 10 years to reach the desired strength of 35.**
 - Similar deficiencies have been reported in the Army and Navy as well.
- **Strategic changes:** Prior to the Russia-Ukraine crisis, India's armed forces were preparing for short and intense conflict i.e. **10i (10 days intense) strategy.**
 - Following the war in Russia, it has changed to an extended war scenario (**40i**) affecting planning, budgetary preparation, and logistics.

News Summary:

The discussion on India's defense budget and indigenization highlights challenges in budget constraints, strategic shifts, and the need for self-reliance. Initiatives like Atmanirbhar Bharat and iDEX aim to bolster indigenous defense manufacturing, but challenges in planning, policy-making, and bureaucratic hurdles persist, requiring sustained efforts for self-sufficiency.

UPSC Mains Practice Questions

Q.1) Foreign direct investment in the defense sector is now said to be liberalized. What influence this is expected to have on Indian defense and economy in the short and long run? (GS3 2014)

Q.2) What are the maritime security challenges India? Discuss the organizational, technical, procedural initiatives taken to improve maritime security. (GS3 2022)

MCQs

Question: With reference to Union Budget, which of the following is/are covered under Non-Plan Expenditure? (UPSC 2014)

1. Defence expenditure
2. Interest payments
3. Salaries and pensions
4. Subsidies

Select the correct answer using the code given below.

Why is the indigenization of defense forces necessary?

- Indigenization of the country's defense apparatus is critical for:
 - **Self-defense:** Hostile neighbors like China and Pakistan on India's northern borders raise the need for preparedness.
 - **Strategic advantage:** A self-reliant defense force will improve India's strategic and geopolitical strengths.
 - **Benefit to the economy:** Indigenization in the defense sector will help create employment and boost the growth of other sectors in the economy as well.

Steps taken by the government for indigenization

- **Atmanirbhar Bharat:** The **Atmanirbhar Bharat Yojana** was launched in 2020 by the Union government to ensure self-reliance in manufacturing.
- **Between 2016-17 and 2022-23, India's defense exports rose tenfold to ₹16,000 crores from ₹1,521 crore.**
- **Innovations For Defence Excellence (iDEX) scheme:** It aims to support indigenous solutions for the modernization of the military by involving MSMEs, startups, and academia.
- **SRIJAN:** SRIJAN is an indigenization portal that aims to support indigenization by Indian entities like MSMEs.
- **DPEPP 2020:** The **Defence Production and Export Promotion Policy 2020** aims to boost the defense production capabilities of the country.
- **Defense corridors:** Two industrial defense corridors have been initiated in Uttar Pradesh and Tamil Nadu to promote domestic manufacturing and reduce foreign dependency of the Indian Aerospace & Defence Sector.
- **Negative lists:** The Ministry of Defense has created a list of items that cannot be imported to encourage domestic defense manufacturing.
- **Restructuring of the Ordnance Factory Board:** 41 factories of the OFB will be dissolved into seven new Defence Public Sector Undertakings (DPSU) to improve efficiency.
- Service-specific projects such as the **Baba Mehar Singh competition for unmanned aerial vehicles by the IAF** have been launched to promote development.

Challenges in indigenization

- **Planning:** Deficiency in defense planning and the lack of a Defence Manufacturing base in India have impacted indigenization.
- **Policymaking:** Insufficient institutional capacity has made timely and effective policymaking difficult.
- **Land acquisition restrictions:** New enterprises and private players have found it difficult to enter defense manufacturing due to difficulties in acquiring land.
- **Dispute resolution:** India needs a permanent arbitration committee to expeditiously settle disputes in the sector.
- **Logistic costs:** Infrastructural deficits have increased logistics costs, impacting the industry's cost competitiveness and efficiency.
- **Red tapism:** Bureaucratic delay and licensing issues have resulted in a lack of ease of doing business in the defense industry.

Conclusion

Strengthening the domestic industry involves a long gestation period during which imports should be balanced with steps for indigenization. Therefore, it should be supported through continued policymaking and appropriate defense budgeting with bipartisan statesmanship to ensure the country's defense preparedness.

- (a) 1 only
(b) 2 and 3 only
(c) 1, 2, 3 and 4
(d) None
Answer: (c)

Social Capital Can Help Close a Wide MSME Gap

SOURCE: LIVE MINT

PRIORITY: MEDIUM

Why in the news?

- The article delves into the historical context of the **current financial challenges** faced by **Indian entrepreneurs and the Micro, Small & Medium Enterprises (MSME) sector**.
- It discusses the concept of **social capital**, barriers to industrial development before independence, present-day financial challenges for MSMEs, and potential solutions.

What is Social Capital?

- The term "social capital" refers to the resources and benefits acquired by individuals within their social networks.
- These networks comprise relationships among people residing and working in a specific society, contributing to its effective functioning.
- Social capital is not a tangible asset but rather a concept that emphasizes the value of social connections and the positive outcomes that can result from them.
- Strong social capital can lead to increased opportunities, improved well-being, and enhanced social and economic outcomes for individuals and communities.

What are MSMEs?

News Summary:

The article explores India's MSME sector, focusing on social capital's historical significance, present challenges, and potential remedies. It highlights limited formal credit access, caste-based networks' influence, and proposed solutions like OCEN to enhance financial inclusion and empower MSMEs for robust economic growth.

UPSC Previous Year Practice Question

Q. Faster economic growth requires increased share of the manufacturing sector in GDP, particularly of MSMEs.

- The regulation of Micro, Small, and Medium Enterprises (MSMEs) falls under the purview of the **Micro, Small & Medium Enterprises Development (MSMED) Act, 2006**, and is overseen by the **Ministry of MSME**.
- Previously, MSMEs were classified based solely on the amount invested in plant and machinery or equipment.
- However, as of July 2020, revised regulations have introduced annual turnover as an additional criterion for classification.
- The new classification criteria are as follows:
- **Micro Enterprise:** Firms with an investment in plant and machinery or equipment of less than INR 1 crore and an annual turnover of less than INR 5 crore.
- **Small Enterprise:** Entities with an investment in plant and machinery or equipment of less than INR 10 crore and an annual turnover of less than INR 50 crore.
- **Medium Enterprise:** Companies with an investment in plant and machinery or equipment of less than INR 50 crore and an annual turnover of less than INR 250 crore.

Historical Barriers to Industrial Development

- Before gaining independence, **Mahadev Govind Ranade** addressed the **scarcity of capital for Indian industry** during his **1890** speech at the inaugural Industrial Conference in Pune.
- He attributed this scarcity to the **hoarding of bullion and the absence of financial institutions**.
- Ranade emphasized the immobilization of capital in unproductive assets like gold and land due to the lack of institutional support for industrial financing. This hindrance significantly impeded industrial progress during that era.
- One of the key factors contributing to this issue was social capital constraints stemming from **hyper-diversity**, where capital predominantly remained within **caste-community groups**.
- These groups tended to invest primarily in their own community members, with surplus funds directed towards unproductive assets such as land and gold.
- Another notable factor was the **British government's failure to establish robust financial institutions**.
- In contrast, Japan's success during the Meiji era can be attributed to its effective mobilization of small savings into the national economy, a crucial factor in its industrialization.

Current Financial Challenges for MSMEs

- A substantial **credit gap exists**, with only a small fraction of enterprises having access to formal credit.
- Most rely on informal sources, and the estimated MSME credit gap stands at around \$530 billion, with only 14% of 64 million enterprises having access to formal credit.
- Over 99% of the MSME sector consists of micro-enterprises, around 80% of which rely on informal sources like friends and family for borrowing.
- Trust within one's community continues to play a significant role in investment decisions, particularly when it comes to informal sources of investment.
- While public sector financial institutions have reduced caste bias in allocating capital, disparities persist in business loans, indicating that social capital and community networks still influence financial choices.
- Studies suggest that entrepreneurs from non-dominant groups may face greater challenges in establishing successful new businesses due to a lack of networks.

Possible Solutions to Support MSMEs

- To address these challenges, it is crucial to avoid reinforcing divisions through caste-based identity politics.
- Instead, a potential technological solution lies in the **Open Credit Enablement Network (OCEN)**.
- OCEN aims to transcend caste and community biases, fostering a more equitable distribution of business credit across India.
- This aligns with Ranade's vision of an inclusive and economically robust India.
- **Credit Linked Capital Subsidy Scheme:** The primary goal of this scheme is to facilitate technology upgrades among Micro and Small Enterprises (MSEs). It achieves this by offering a capital subsidy of 15% on institutional finance, up to Rs 1 crore, obtained by MSEs.
- This subsidy encourages the adoption of well-established and enhanced technologies in 51 specified sub-sectors/products.
- **Credit Guarantee Trust Fund for Micro and Small Enterprises (CGTMSE):** This initiative provides collateral-free credit to the micro and small enterprise sector, making it easier for these businesses to access financing without the need for traditional collateral.
- **Special Credit Linked Capital Subsidy Scheme (SCLCSS):** Designed to assist enterprises in the services sector, this scheme addresses their technology requirements.

Comment on the present policies of the Government in this regard. (2023)

MCQs

Q. Consider the following statements with reference to India: (UPSC 2023)

1. According to the 'Micro, Small and Medium Enterprises Development (MSMED) Act, 2006', the 'medium enterprises' are those with investments in plant and machinery between Rs 15 crore and Rs 25 crore.
2. All bank loans to the Micro, Small and Medium Enterprises qualify under the priority sector.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (d)

- It includes a provision for granting a 25% capital subsidy for the procurement of plant and machinery as well as service equipment through institutional credit.
- This benefit is extended to MSMEs owned by SC/ST entrepreneurs, without any specific restrictions on the type of technology upgrades.
- **Raising and Accelerating MSME Performance (RAMP):** The objective of this scheme is to strengthen institutions and governance at both the central and state levels.
- It also focuses on improving collaboration between the central and state governments, enhancing MSMEs' access to markets and credit, supporting technology upgrades, and addressing issues related to delayed payments and environmental sustainability for MSMEs.
- **Mudra Loan Scheme:** Launched in April 2015, this scheme is designed to provide loans to non-corporate, non-farm small and micro enterprises.
- It offers three types of financing options: **Tarun** (for loans up to INR 10 lakhs), **Kishore** (for loans up to INR 5 lakhs), and **Shishu** (for loans up to INR 50,000).
- **The Small Industries Development Bank of India (SIDBI)** has entered into an **agreement with Google** to initiate a pilot program for social impact lending.
- Under this initiative, micro-enterprises will have access to financial assistance of up to **INR 1 crore** at reduced interest rates.
- In an effort to revitalize the Indian Micro, Small, and Medium Enterprises (MSME) sector, Google India Pvt. Ltd. (GIPL) will allocate a fund of US\$ 15 million specifically for micro-enterprises as part of its response to the COVID-19 crisis.

Conclusion

Micro, Small, and Medium Enterprises (MSMEs) have the potential to significantly contribute to economic growth. They can play a pivotal role in fostering inclusive and equitable development while positioning India as a prominent global manufacturing center. The government has been extending its support to MSMEs through a range of initiatives, and now, the imperative lies in prioritizing effective implementation to achieve tangible outcomes.

Understanding The Debates Around Anarcho-Capitalism

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- This article discusses the concept of anarcho-capitalism which is a political philosophy that advocates the abolition of the state.
- Recently, Javier Milei, a self-proclaimed anarcho-capitalist was elected President of Argentina.

What is anarcho-capitalism?

- It is a political philosophy that **advocates the abolition of the state and for essential services like defense and law to be controlled and voluntarily provided by private companies in a free marketplace.**
- The term "anarcho-capitalism" was **coined by American libertarian economist Murray Rothbard.**
- Belgian political economist **Gustave de Molinari** is considered one of the first anarcho-capitalists in the modern world.
- It subscribes to the belief that **citizens would benefit immensely when these services are provided in a competitive marketplace** rather than when the state holds a legal monopoly over the use of coercion.
- Contemporary proponents of anarcho-capitalism include **David Friedman, Edward Stringham, and Michael Huemer.**
- Recently, **Javier Milei, an anarcho-capitalist was elected President of Argentina.** He has suggested steps like de-dollarization, doing away with the central bank, and reduced spending as steps to counter the country's financial crisis. To know more, click the [link](#).

How does anarcho-capitalism work?

- **Advocates of a free market system have traditionally advocated the private provision of most goods and services, excluding the police and the courts.**
- On the contrary, opponents have claimed that these services could only be provided by the state.
- According to anarcho-capitalists, **private companies competing in a free market can provide better or equal policing and legal services, in terms of price and quality, than the state.**
- They cite the example of private companies providing superior and cheaper telephone services, vehicles, etc to justify their claim.
- Citizens would pay the private police and courts for protection against crimes and the adjudication of disputes.
- Since **private companies are dependent on customer patronage**, they would be more effective in fulfilling the needs of the citizens.

News summary:

This article delves into anarcho-capitalism, advocating the abolition of the state for private governance. It details its operation, benefits, and criticisms, triggered by Javier Milei's election as Argentina's President. Proponents stress market efficiency, while critics highlight potential violence and favoritism issues.

- The **current court and police system which is monopolized by the state and funded by taxpayer money is characterized by delays and inefficiencies.**
- The quality of the policing and legal systems offered by the state does not vary depending on the taxes paid by the citizens.
- **The quality of these public services is low while the cost associated with them is quite high.**
- This means that the legal and policing systems are not accountable to the citizens.
- In an anarcho-capitalist society, customers can stop paying or switch to another service provider in the marketplace if they are unsatisfied with the quality of services provided.

Criticism of anarcho-capitalism

- **Violence:** According to critics, critical services like police and judiciary cannot be provided by multiple firms within a single geographical region.
- This would lead to **disagreement and conflict between armed private gangs aiming to protect the interests of their clients.**
- This would ultimately lead to **chaos and violent lawlessness** in the region.
- **Bias in favor of the rich:** In an anarcho-capitalist system, **police protection and legal adjudication would potentially favor the rich over the poor.**
- The market system would allow the rich to escape the repercussions of a crime by paying a higher amount to the private police and judiciary.
- This would **deny the poor justice** in the marketplace-controlled system.

Arguments in favor of anarcho-capitalism

- Advocates of anarcho-capitalism deny both the above-mentioned arguments made by critics.
- **Pre-approved rules system:** They claim that **it would not be sensible for a private police or court, which functions with the aim of long-term profits, to refuse to cooperate with its competitors to shield a client.**
- If they did so, the private police or courts would find resistance from their competitors and a lack of cooperation in other cases.
- Consider two private police agencies A and B. If A defends a client who has assaulted a client of B, then B can defend one of its clients accused of assault against A, leading to a loss of clientele for A due to its inefficiency.
- Therefore, the competing police and courts would cooperate over a pre-approved set of rules in cases involving their clients as it would help prevent costly and lengthy stalemates.
- However, the rules system would be determined by the competing demands of customers in the market.
- **Protection of the poor:** Anarcho-capitalists claim that an **anarcho-capitalist system would protect the poor from injustices.**
- They cite the argument that a private seller in a marketplace gains the majority of its revenue from the larger society rather than the rich.
- Therefore, the private court or police are less likely to favor the rich for fear of losing the majority of their customers.
- Private firms would aim to secure a larger share of the market, so the anarcho-capitalist system would benefit the poor.
- On the other hand, the present model in which the police and legal system are backed by the police favors groups depending on their lobbying capacities.

Conclusion

- The emergence of anarcho-capitalism and the election of Javier Milei as the President of Argentina has led to debates on the abolition of the state and the provision of services by the state. Proponents highlight the market efficiency of the system while critics have emphasized on the potential for violence and bias.

What Causes Inflation In India: Demand Or Supply Issues?

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- Recently an article Recent Inflation Dynamics in India: Role of Supply vis-à-vis Demand published in the RBI Bulletin 2023 indicated that inflation in India was caused by both demand and supply side disruptions.
- Core inflation in India declined from 5.1% in April 2023 to 4.3% in October 2023.

How have supply and demand affected inflation in India?

- Inflation in India is primarily influenced by supply and demand side factors.
- Supply disruptions were the main factor for inflation during the COVID-19 waves, while demand-related factors were the primary driver for inflation following the Russia-Ukraine conflict.
- At the start of the pandemic, production and demand declined as a result of the lockdowns leading to a steep drop in economic growth.

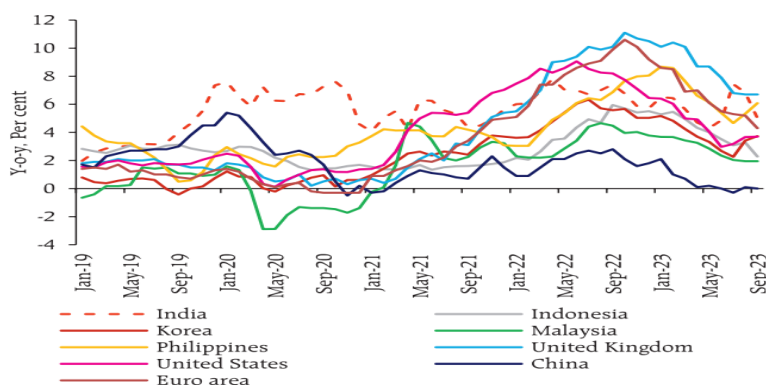
News summary:

The article explores the dual impact of supply and demand factors on inflation in India, influenced by pandemic repercussions and geopolitical conflicts. It highlights the dominance of supply disruptions and intermittent demand-driven pressures on inflation, shaping policy considerations.

UPSC Mains Practice Questions

- At the same time, commodity prices also dropped due to weakened demand.
- However, with the reopening of the economy following vaccine distribution, demand began to recover faster than supply.
- This imbalance in supply and demand resulted in rising pressures on commodity prices.
- The Russia-Ukraine conflict in 2022 intensified the supply chain challenges and resulted in further pressure on commodity prices.
- Both adverse supply shocks like supply bottlenecks and higher energy prices as well as excess demand caused by catch-up effects and large-scale monetary and fiscal stimulus due to the COVID-19 pandemic have had a role to play in inflation.
- Demand drivers of inflation not only increased but also remained consistently elevated post-April 2022 in contrast with the first wave of COVID-19 when it gradually tapered off. On the other hand, supply-driven inflation which rose sharply after the first wave of COVID-19, tapered off significantly thereafter, until the Russia-Ukraine conflict again pushed up its contribution to some extent.
- Since food and fuel account for more than 50% of India's CPI basket, the role of supply-side shocks in driving inflation may be higher compared to Advanced Economies.
- Despite India's food surplus status, domestic food inflation has been affected by supply chain disruptions such as weather and trade.
- Similarly, volatility in international crude oil prices could affect inflation both directly and indirectly.

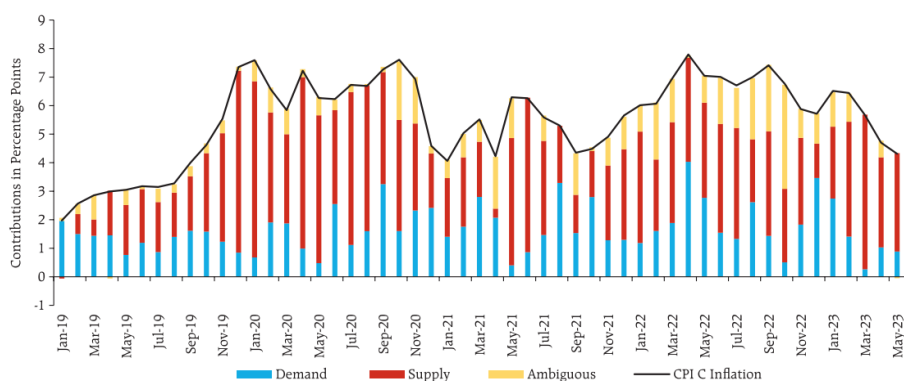
a: Inflation: Select Economies



Source: CEIC and ECB.

- At the same time, the CPI food basket includes protein-rich items that display demand-driven price pressures associated with increases in income levels.
- Supply shocks in food items may be mostly temporary while those related to rising income-induced consumption shifts may be persistent.
- On the other hand, most items included while determining core inflation excluding food and fuel could be largely demand-driven, but also impacted by sustained input cost pressures.
- Therefore, both demand and supply factors affect the prices of different CPI items.

Chart 6: Drivers of CPI-C Headline Inflation



Source: NSO, CMIE and authors' estimates.

- The study assesses inflation in India using data from the Center for Monitoring of Indian Economy's consumer expenditure data.

Q.1) Do you agree with the view that steady growth and low inflation have left the Indian economy in good shape? Give reasons in support of your arguments. (UPSC CSE 2019)

MCQs

Question: In India, which one of the following is responsible for maintaining price stability by controlling inflation? (UPSC 2022)

- Department of Consumer Affairs
- Expenditure Management Commission
- Financial Stability and Development Council
- Reserve Bank of India

Answer: (d)

Q. With reference to the Indian economy, demand-pull inflation can be caused/increased by which of the following? (UPSC 2021)

- Expansionary policies
- Fiscal stimulus
- Inflation-indexing wages
- Higher purchasing power
- Rising interest rates

Select the correct answer using the code given below.

- 1, 2 and 4 only
- 3, 4 and 5 only
- 1, 2, 3 and 5 only
- 1, 2, 3, 4 and 5

Answer: (a)

Q. Consider the following statements: (UPSC 2020)

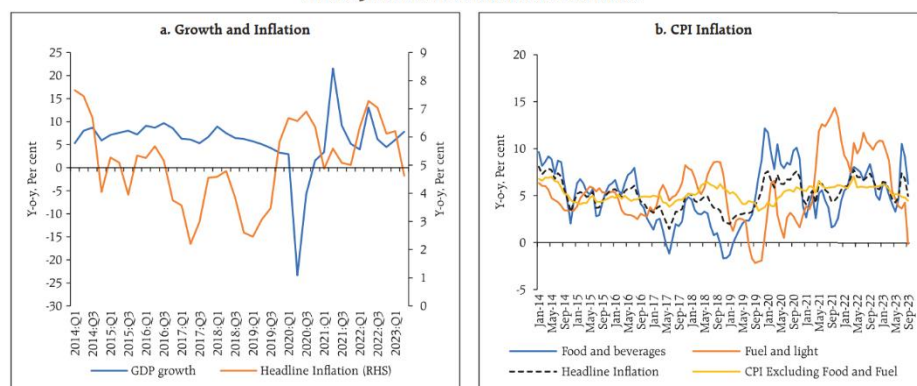
- The weightage of food in Consumer Price Index (CPI) is higher than that in Wholesale Price Index (WPI).
- The WPI does not capture changes in the prices of services, which CPI does.
- The Reserve Bank of India has now adopted WPI as its key measure of inflation and to decide on changing the key policy rates.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 only
- 3 only
- 1, 2 and 3

Answer: (a)

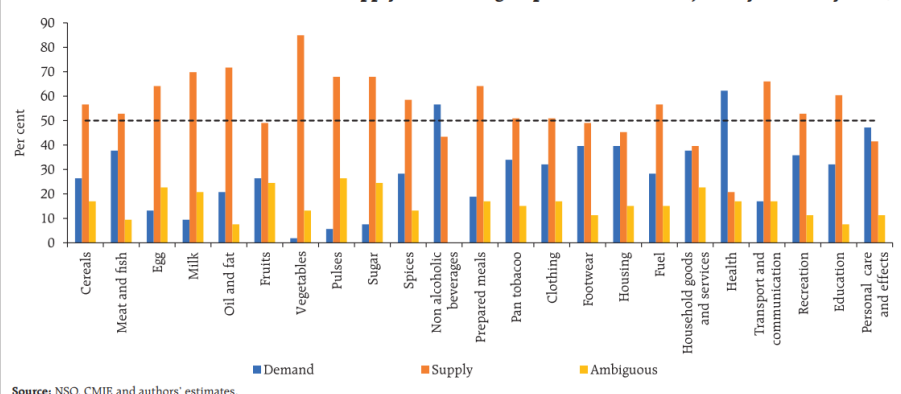
Chart 3: Growth and Inflation in India



Source: NSO, GoI and authors' calculations.

- **Demand-driven inflation:** When there is an unforeseen shift in prices and quantities within a month that aligns in the same direction, inflation for that month is categorized as demand-driven.
 - When demand increases, both prices and quantities increase.
 - When demand decreases, both prices and quantities drop.
 - **Products impacted:** nonalcoholic beverages, personal care products, and health-related goods.
- **Supply-driven inflation:** If the prices and quantities unexpectedly change in opposite directions, it is categorized as supply-driven inflation.
 - If supply decreases, quantities decrease but prices increase
 - If supply increases, quantities increase but prices decrease
 - **Products affected:** vegetables, oils and fats, milk, eggs, pulses, and sugar
- To assess overall headline inflation, demand and supply factors at the subgroup level were combined using CPI weights.

Chart 5: Contributions of Demand and Supply to CPI Sub-groups Level Inflation (January 2019-May 2023)

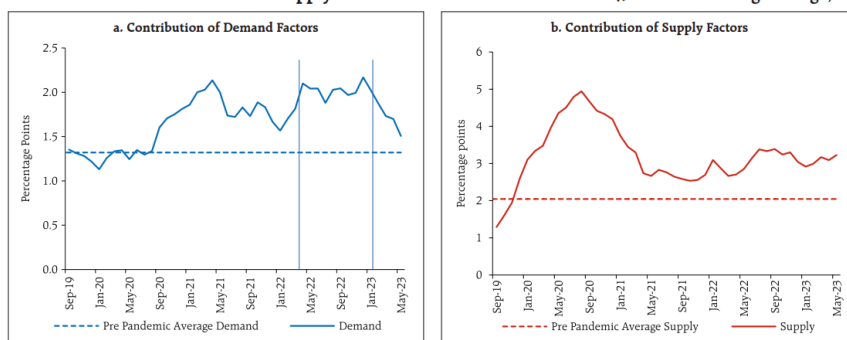


Source: NSO, CMIE and authors' estimates.

Findings

- Inflation was mainly driven by supply factors in the following instances
 - between October 2019 and January 2020 due to supply disruptions caused by excess rainfall
 - throughout the pandemic due to restrictions and supply chain issues
 - the beginning of the Russia-Ukraine conflict due to supply shortages and spikes in global commodity prices
- On average, supply-side factors accounted for 55% of the CPI headline inflation from January 2019 to May 2023.
- The impact of demand-related factors on headline inflation dropped during the COVID19 crisis, from 41.5% in 2019 to 27.1% in 2020.
 - Post-COVID-19, there were intermittent increases in the demand side influences on inflation.
 - After the onset of the Russia-Ukraine conflict, demand contributed to the peaking of headline inflation in April 2022.
- Between January 2019 and May 2023, demand drivers contributed 31% to inflation.

Chart 8: Role of Demand and Supply-side Factors in Headline Inflation (9-months Rolling Average)

**Important terms related to inflation**

- **Inflation:** It refers to the rate at which the price of goods and services in a given economy rises.
 - It can occur due to an increase in demand or shortage of supply, which results in the prices of commodities increasing.
- **Headline inflation:** It is the measure of total inflation within an economy and includes the rise in prices of food, fuel, and other commodities.
 - It is generally indicated by the Wholesale Price Index (WPI).
- **Core inflation:** It is the total inflation in the country (Headline Inflation) minus the inflation in the food and energy articles (volatile articles).
- **CPI inflation:** Retail inflation or Consumer Price Index (CPI) inflation is the rate of increase in the prices of goods and services purchased by consumers for their personal use.

What steps has the government taken to control inflation?

- **Facilitating Food Imports:** The government has eased restrictions on food imports to increase the supply and availability of essential commodities.
 - This in turn helps maintain price stability in the economy.
- **Extension of Free Food Grain Scheme:** Essential food grains have been provided at no cost to the needy.
 - This has helped alleviate the burden of food costs faced by the vulnerable sections of society.
- **Prohibition of hoarding:** Action has been taken by authorities to prevent hoarding of essential commodities by traders.
 - This aims to prevent artificial shortages and manipulations in prices which could otherwise burden the common man.
- **LPG Subsidy:** Increasing the subsidy on Liquefied Petroleum Gas (LPG) has helped reduce the monthly expenditure of consumers.
 - It has thus helped control overall inflation in the economy.

Conclusion

- On average, supply-side factors have been dominant in driving inflation in India, but demand factors have also assumed importance on occasions.
- The evaluation of the supply and demand factors in driving inflation can help guide monetary policy, it has been impacted by numerous overlapping shocks

As PLI Takes Centerstage Govt. Puts New Industrial Policy On Backburner

SOURCE: INDIAN EXPRESS

PRIORITY: HIGH

Why in the news?

- The Indian government has shifted its focus from introducing a new industrial policy to prioritizing the **Production-Linked Incentive (PLI) scheme**.
- **A draft of the new industrial policy** had been circulated for consultation but is now on hold.

Contextual Background

- The Indian government has been working on a new industrial policy for over two years, with a draft circulated for consultation in December of the previous year.
- **This policy was expected to be the third major industrial framework** since India's independence, intended to replace landmark 1991 policy that marked the beginning of economic liberalization in the country.
- Instead of immediately implementing this new policy, **the government has shifted its focus to the PLI scheme**, which aims to boost manufacturing and encourage private investment.
- The PLI scheme **provides incentives to companies** based on their production output, essentially rewarding increased manufacturing.

What is a Production-Linked Incentive (PLI) Scheme?**News summary:**

The Indian government has shifted focus from a new industrial policy to prioritizing the Production-Linked Incentive (PLI) scheme for manufacturing growth. The delayed new policy aims at enhancing competitiveness, innovation, and inclusivity, while challenges and successes of PLI across sectors underscore India's efforts to boost manufacturing and attract investments amid global shifts.

UPSC Previous Year Practice Question

Q. "Industrial growth rate has lagged behind in the overall growth of Gross Domestic Product (GDP) in the post-

- The PLI scheme was designed with the intention of enhancing domestic manufacturing capabilities, promoting greater import substitution, and fostering job creation.
- **Launched in March 2020**, the initiative initially focused on three sectors: mobile and allied component manufacturing, electrical component manufacturing, and medical devices. **Subsequently, it was expanded to encompass 14 sectors.**
- Within the PLI scheme, both domestic and foreign companies are eligible for financial incentives based on a percentage of their revenue over a period of up to five years.
- The **targeted sectors** under this scheme include **mobile manufacturing, medical device production, automobiles and auto components, pharmaceuticals, specialty steel, telecom and networking products, electronic goods, white goods (such as ACs and LEDs), food products, textile items, solar PV modules, advanced chemistry cell (ACC) batteries, and drones and drone components.**
- The incentives provided are computed based on incremental sales, with certain sectors like advanced chemistry cell batteries, textile products, and the drone industry having their incentives determined by sales performance and local value addition over a five-year period.
- The emphasis on R&D investment is also intended to ensure that industries remain aligned with global trends and maintain competitiveness in international markets.
- In the case of smartphone manufacturing, the scheme has shown significant success.
- In FY 2017-18, India had a trade deficit of USD 3.3 billion, with mobile phone imports at USD 3.6 billion and exports at just USD 334 million.
- However, by FY 2022-23, imports had reduced to USD 1.6 billion, while exports surged to nearly USD 11 billion, resulting in a positive net export balance of USD 9.8 billion.
- The primary objectives of the scheme include **reducing India's reliance on foreign countries, particularly China**, supporting labor-intensive industries to increase employment, curbing import bills, and boosting domestic production.
- The PLI scheme offers several benefits, including concessions on import and export duties, tax rebates, accessible land acquisition, and support for anchor investors managing new projects.
- Its focus on sustainable development and investment in labor-intensive sectors makes it an effective and accessible program.

Success of PLI Scheme

Increase in FDI

- 76% increase in Foreign Direct Investment (FDI) in the Manufacturing sector in FY 2021-22 compared to the previous year.
- Notable increases in FDI for specific sectors:
- Drugs and Pharmaceuticals: +46%
- Food Processing Industries: +26%
- Medical Appliances: +91%

Value Addition

- Achieved a 20% value addition in mobile manufacturing within a period of 3 years.

India's Exports Basket

- PLI Schemes have transformed India's export basket from traditional commodities to high-value-added products.
- Exports boosted by Rs 2.56 Lakh Crore until FY 2022-23.

Investment

- 733 applications approved to date in 14 sectors.
- Expected investment of Rs. 3.65 Lakh Crore.
- Realized investment of Rs. 62,500 Crore until March 2023, resulting in the generation of around 3,25,000 jobs.

Impact on Indian Farmers and MSMEs in Food Processing Sector

- PLI Scheme for Food Processing positively impacted the income of Indian farmers and Micro, Small, and Medium Enterprises (MSMEs).

Import Substitution

- Achieved import substitution of 60% in the Telecom sector, making India self-reliant in Antennae, GPON, and Customer Premises Equipment (CPE).

Growth in the Drones Sector

- The turnover in the drones sector has experienced a sevenfold increase due to the PLI Scheme.

Reduction in Imports

- Significant reduction in imports of raw materials in the Pharma sector, along with the transfer of technology in the manufacturing of Medical Devices.

Draft New Industrial Policy 2022 – Key Features

- **Development Finance Institution (DFI):** The policy proposes the establishment of a specialized Development Finance Institution to provide competitive financing to industries.

reform period” Give reasons. How far the recent changes in Industrial Policy are capable of increasing the industrial growth rate? (2017)

Q. The right to fair compensation and transparency land acquisition, rehabilitation and resettlement act, 2013 has come into effect from 1 January 2014. What implication would it have on industrialisation and agriculture in India? (2014)

MCQs

Q. Consider, the following statements: (UPSC 2023)

Statement-I: India accounts for 3.2% of global export of goods.

Statement-II: Many local companies and some foreign companies operating in India have taken advantage of India's 'Production-linked Incentive' scheme.

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- Statement-I is correct but Statement-II is incorrect
- Statement-I is incorrect but Statement-II is correct

Answer: (d)

- This institution is expected to utilize a portion of India's foreign exchange reserves to offer low-cost finance, helping companies ascend the value chain.
- **Fostering Competitiveness and Capability:** The policy is designed to enhance the competitiveness and capability within India's industrial sector. It emphasizes economic integration and aims to elevate India's position in the global value chain.
- **Promotion of Investment and Innovation:** A central objective is to promote India as an attractive investment destination, nurturing innovation and entrepreneurship.
- **"Made in India" Branding:** This initiative would help manufacturers demonstrate local value addition and improve India's credibility as a quality product source.
- **Addressing Financing Challenges:** The policy suggests various measures to increase access to finance for industries. These include leveraging fintech, encouraging micro, small, and medium enterprises (MSMEs) to access corporate bond markets, and accepting intellectual property rights as collateral for loans.
- **Incentives and Schemes:** The policy proposes setting up a technology fund to spur companies in advanced technology areas. It also suggests incentivizing public procurement to promote the "Make in India" initiative, enabling supply chain financing, and providing performance-based loans and incentives for innovation and green growth.
- **Focus on MSMEs and Skill Development:** The draft policy underscores the need to support small businesses in accessing funds and resolving the skill gap issue through various initiatives, including creating innovation zones and formulating a national capacity development program.
- **Social Security and Inclusivity:** The policy includes provisions for rolling out social security schemes for women workers and incorporating labor-intensive industries under the production-linked incentive scheme.
- **Addressing Broader Economic and Industrial Challenges:** The policy acknowledges the need for an integrated investment promotion strategy and the importance of aligning with district, state, national, and international market synergies.

Why has the Government not released the New Industrial Policy Yet?

- **Shift in Focus to PLI Scheme:** The government is currently prioritizing the PLI scheme as a key driver for manufacturing growth and private investment. This scheme aims to incentivize and compensate for existing disadvantages in the economy to boost manufacturing activity.
- **Awaiting Better Conditions:** The government appears to be waiting for more favorable conditions to release the new industrial policy.
- **Combination of PLI and Free Trade Agreements (FTA):** The government is focusing on improving the manufacturing base through a combination of the PLI scheme and FTAs. The goal is to increase the manufacturing sector's contribution to GDP, which is currently relatively low.

National Manufacturing Policy (2011)

- Major objectives of the National Manufacturing Policy:
- Increase manufacturing sector's share in GDP to at least 25% by 2022.
- Generate 100 million additional jobs by 2022.
- Enhance global competitiveness, domestic value addition, technological depth, and environmental sustainability.
- Focus areas of the policy:
- Industrial infrastructure development, including National Investment and Manufacturing Zones (NIMZs).
- Business environment improvement through simplification of regulations.
- Development of green technologies and skill development.

Challenges with Production-Linked Incentive (PLI) Scheme

- **Competition and Market Dynamics:** Increased competition among eligible companies has the potential to trigger price wars or distortions in the market.
- **Compliance and Reporting Burden:** Businesses participating in the PLI scheme have encountered additional administrative challenges in meeting reporting and documentation requirements.
- **Sectoral Imbalance:** Variations in the benefits received by different sectors could lead to economic imbalances.
- **Impact on Existing Investments:** The PLI scheme may divert investments away from existing projects or sectors that do not fall under the scheme, impacting their growth prospects.
- **Delays in Implementation:** Implementation of the PLI scheme for various sectors may experience delays due to bureaucratic processes, administrative hurdles, or policy adjustments.
- **Eligibility Criteria:** Some companies may find the government's eligibility criteria for participation in the scheme too stringent or restrictive, limiting their ability to participate.

- **Funding Constraints:** Ensuring adequate funding and the timely disbursement of incentives to eligible companies can be challenging, potentially affecting the effectiveness of the scheme.
- **Assembly vs. Value Addition:** The subsidy in the scheme for Mobile and allied Component Manufacturing is granted based on the assembly of phones in India, rather than the value added by manufacturing, resulting in a situation where most components are still imported.
- **WTO Constraints and Limited Value Addition:** WTO rules prevent India from tying PLI subsidies to domestic value addition. Although India aims to produce chips, their complexity and constraints may limit significant domestic value addition.

Steps to Position India as a Viable Alternative Manufacturing Destination to China

- **Enhancing Infrastructure:** Improving infrastructure is crucial. This includes developing efficient transportation networks (roads, ports, railways), reliable power supply, and robust telecommunications systems.
- **Policy Reforms and Ease of Doing Business:** Simplifying regulatory procedures, reducing bureaucratic hurdles, and ensuring policy stability can make India more attractive to foreign investors.
- **Developing Skilled Workforce:** This includes technical skills relevant to manufacturing as well as language and managerial skills that are crucial in a global business environment.
- **Technological Advancements and R&D:** Promoting research and development, and encouraging the adoption of modern technologies in manufacturing processes can enhance productivity and quality.
- **Financial Incentives and Support:** In addition to schemes like PLI, providing tax benefits, financial incentives, and easier access to capital for both domestic and foreign companies can be a significant draw.
- **Fostering MSMEs and Supply Chain Development:** Supporting Micro, Small, and Medium Enterprises (MSMEs) which are a critical part of the supply chain. This includes providing easier credit facilities, technological upgrades, and integration into global supply chains.
- **Global Trade Partnerships:** Actively pursuing and establishing free trade agreements and bilateral trade partnerships can open new markets and create a favorable trading environment.
- **Addressing Geopolitical and Trade Risks:** Navigating geopolitical tensions and diversifying trade to reduce dependence on any single market.
- **Environmental Sustainability:** Emphasizing sustainable manufacturing practices and compliance with international environmental standards can be a key differentiator, especially as global attention on sustainability grows.
- **Localized Manufacturing and Clusters:** Developing specialized manufacturing clusters with the necessary infrastructure and facilities for specific industries can boost productivity and attract investment in those sectors.
- **Leveraging Demographic Dividend:** Capitalizing on India's large and young workforce to create a labor-intensive manufacturing base, which can be an attractive proposition for businesses looking to relocate from China.
- **Cultural and Linguistic Training:** Providing cultural and linguistic training to facilitate better integration into global supply chains and understanding of international market dynamics.

Conclusion

The Indian government's focus has shifted from a comprehensive new industrial policy to leveraging the PLI scheme as a primary tool for boosting manufacturing and investment. The delay in the new policy reflects a strategic decision to prioritize immediate incentives over long-term policy restructuring in the face of global economic shifts and domestic challenges.

PM Modi Inaugurates Surat Diamond Bourse In Gujarat

SOURCE: THE HINDU

PRIORITY: LOW

Why in the news?

- Recently, Prime Minister Narendra Modi inaugurated the world's largest and most modern center for the international diamond and jewelry business - the Surat Diamond Bourse (SDB).
- The SDB is estimated to be the world's largest office space, exceeding the Pentagon in the USA.

What is the Surat Diamond Bourse?

- The Surat Diamond Bourse is the world's largest and most modern center for international diamond and jewelry businesses.
- It is located at the Diamond Research and Mercantile (**DREAM**) city in Surat.
- It is the world's largest office complex which was built to shift the diamond trading business from Mumbai to Surat.

News summary:

Prime Minister Narendra Modi inaugurated the Surat Diamond Bourse, the world's largest diamond and jewelry business center, addressing challenges in the industry and consolidating the diamond supply chain.

MCQs

Question: Consider the following statements: (UPSC 2007)

1. Balaghat is known for its diamond mines.

- Surat is the hub of diamond cutting and polishing with thousands of factories spread across the city.
- It was inaugurated by the Prime Minister of India, Narendra Modi, who described it as a diamond in the city of Surat and an emblem of the new India and its strength.
- **Design:**
- The project is based on the 'panch tatva' theme which represents the five elements of nature - air, water, earth, fire, and sky.
- It has a floor area of over 67 lakh square feet across nine interconnected 15-story towers that can accommodate over 4,200 offices.
- It hosts offices of traders of cut and polished diamonds and agents who deal with the import of rough stones from international markets and 27 retail jewelry outlets.

What is the significance of the SDB?

- **Supply chain consolidation:** It aims to complete the value chain of diamond jewelry and consolidate all diamond-related activities and infrastructure under one roof.
- Various diamond-related businesses such as the sale of rough and polished diamonds, diamond manufacturing machinery, diamond planning software, diamond certificate firms, lab-grown diamonds, etc will be hosted in the complex.
- **Employment:** According to experts, the SDB will generate around 1 lakh direct employment opportunities in the diamond industry as well as numerous indirect opportunities.
- The diamond industry in Surat employs more than one million craftsmen and workers and generates around ₹1.6 trillion of annual revenue.
- **Contribution to economy:** Surat is famous for processing 90% of the world's diamonds, with over 6,000 units cutting and polishing rough gems sourced from across the globe.
- Cut and polished diamonds account for 65% of India's gem and jewelry exports (₹1.76 trillion in 2022-23).
- Surat's diamond trading market was previously located at Mahidharpra Hira Bazaar and Varachha Hira Bazaar where security measures are insufficient.
- The majority of trade was conducted in Mumbai after transporting the diamonds manufactured in Surat to Mumbai via trains.
- The establishment of the SDB will help address these security concerns and the concerns faced by the diamond industry in Mumbai such as the lack of space and costs in the real estate sector.

What are the challenges faced by the diamond industry?

- **Slowing demand:** The global economic slump has led to a 32% drop in the value of exports of cut and polished mined diamonds from ₹15,594 crores (Oct 2022) to ₹10,495 crores (Oct 2023).
- High interest rates in the US and Europe, and the downturn of the Chinese economy have all contributed to the decline in demand.
- In September, the Gems and Jewellery Export Promotion Council (GJEPC) and other trade bodies directed members to halt imports of rough diamonds for two months as the inventory of polished diamonds had risen due to the fall in exports.
- **Geopolitical impact:** The G7 countries have announced direct import restrictions on Russian-origin diamonds from January and diamonds processed by third countries like India from March.
- The restrictions apply to diamonds sized a carat or above in G7 countries while diamonds sized half a carat or more will be banned in September 2024.
- They have also announced that a new system to trace the origin of the stones will be introduced.
- Russia is a significant source of rough diamonds (35% of supply) and sanctions on major Russian miners have impacted the supply chain.
- However, stakeholders claim that the impact of the ban will be less severe since Russian diamonds of less than 0.5 carats are cut and polished, in Surat.
- **Competition with lab-grown alternatives:** Lab-grown diamonds which can be manufactured in lab conditions and at a lower cost than natural diamonds have affected the diamond industry.
- Since these synthetic diamonds are up to 20% cheaper, they have become much more popular among consumers.
- **Unemployment and financial distress:** Around 30 artisans in Surat have committed suicide in the last year over financial difficulties, highlighting the problems faced by workers in the diamond industry.
- Small and medium-sized factories have either closed down or downsized operations since Diwali.
- According to experts, the sector could experience a retrenchment of workers by around 30% if the global situation continues.

Diamonds

2. Majhgawan is known for its manganese deposits. Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (d)

Question: Which one of the following foreign travelers elaborately discussed diamonds and diamond mines of India? (UPSC 2018)

- (a) Francois Bernier
- (b) Jean-Baptiste Tavernier
- (c) Jean de Thevenot
- (d) Abbe Barthelemy Carre

Answer: (b)

Question: In which one of the following districts, have large reserves of diamond-bearing Kimberlite been discovered in the recent past? (UPSC 2007)

- (a) Hoshangabad
- (b) Raipur
- (c) Sambalpur
- (d) Warangal

Answer: (b)

- Diamonds are the hardest naturally occurring substance found on Earth that are formed in the mantle and brought to the crust through volcanism.
- Its composition is pure carbon and has a cubic crystal system and common form octahedron.
- **Occurrence:** They occur
 - primarily in igneous rocks of basic or ultrabasic composition
 - in alluvial deposits derived from the primary sources.
- **Applications:**
 - The industrial variety of diamonds is used to make ornaments and tools for grinding, cutting, drilling, and polishing.
 - They are also used in semiconductors due to their high thermal conductivity and electrical resistivity.

Distribution in India

- South Indian tract of Andhra Pradesh
- Central Indian tract of Madhya Pradesh (Panna belt)
- Eastern Indian tract in Odisha
- Raipur district some areas of Bastar in Chhattisgarh
- Madhya Pradesh accounts for about 90.18% of resources followed by Andhra Pradesh 5.72% and Chhattisgarh 4.09%.
- In India, the mine at Majhgawan in Panna under the NMDC is the sole mine for diamond production.
- Majhgawan mine is also the only diamond mine in Asia.

Conclusion

- The establishment of the Surat Diamond Bourse will help consolidate all the diamond-related activities in one corporate area while addressing socio-economic concerns such as employment, growth, demand, etc.
- The government must also implement measures through a resilient and adaptable strategy to help the workers in the sector who have been laid off or are facing financial distress.
- This will ensure the longevity and viability of the Indian diamond industry's longevity and viability amid economic and geopolitical concerns.

RAMP Programme

SOURCE: PIB

PRIORITY: HIGH

Why in the news?

- Recently, the Union Minister for MSME launched three sub-schemes under the aegis of the RAMP programme - the MSME Green Investment and Financing for Transformation Scheme (MSE GIFT Scheme), MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme), and MSE Scheme on Online Dispute Resolution for Delayed Payments.

About RAMP Programme

	Details
About	World Bank assisted Central Sector Scheme.
Launch	FY 2022-23
Supported By	Ministry of Micro, Small and Medium Enterprises (MoMSME), Government of India.
Primary Aim	– Improve access to market and credit for MSMEs. – Strengthen institutions and governance. – Enhance Centre-State linkages and partnerships. – Address delayed payments and promote greening of MSMEs.
Key Components	– Preparation of Strategic Investment Plans (SIPs) by states/UTs. – Apex National MSME Council for monitoring and policy overview.

Details of the Launched Schemes

News summary:

The RAMP program which aims to promote green practices, circular economy projects, and online dispute resolution for delayed payments in the MSME sector was launched recently.

UPSC Mains Practice Questions

Q.1) Faster economic growth requires an increased share of the manufacturing sector in GDP, particularly of MSMEs. Comment on the present policies of the Government in this regard. (GS3 2023)

MCQs

Question: Consider the following statements with reference to India:

1. According to the 'Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, the 'medium enterprises' are those with investments in plant and machinery between ` 15 crore and ` 25 crore.
2. All bank loans to the Micro, Small and Medium Enterprises qualify under the priority sector.

Which of the statements given above is/are correct? (UPSC 2023)

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

	MSME Green Investment and Financing for Transformation Scheme (MSME GIFT Scheme)	MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme)	MSE Scheme on Online Dispute Resolution for Delayed Payments
Objective	To assist MSMEs in adopting green technology.	The government's first scheme to support circular economy projects in the MSME sector.	Combines legal support with IT tools and Artificial Intelligence to address delayed payments issues.
Support Mechanisms	Offers interest subvention and credit guarantee support.	Aims to achieve zero emissions by 2070 through credit subsidy.	Focused on aiding Micro and Small Enterprises.
Unique Features	– Encourages eco-friendly practices in MSMEs. – Financial incentives for green technology adoption.	– Promotes sustainable and eco-friendly business models. – Supports long-term environmental goals.	– Innovative use of technology for dispute resolution. – Aims to streamline payment processes and reduce conflicts.
Implementing Agency	Small Industries Development Bank of India (SIDBI)	Small Industries Development Bank of India (SIDBI)	National Informatics Centre Services Inc. (NICSI)

Answer: (d)

Question: Priority Sector Lending by banks in India constitutes the lending to (UPSC 2013)

- (a) agriculture
- (b) micro and small enterprises
- (c) weaker sections
- (d) All of the above

Answer: (d)**SIDBI**

- **Small Industries Development Bank of India (SIDBI) is India's primary institution for promoting, financing, and developing industries in the micro and small-scale sectors.**
- It is a statutory body that was established on 2nd April 1990 under an Act of the Indian Parliament.
- **Functions:**
 - Support the financial stability of small-scale businesses in the MSME sector and assist financial institutions
 - Support small businesses in improving exports
 - Enable further lending to MSMEs through indirect methods such as refinancing of financial institutions and direct financing mechanisms like sustainable financing, promotion of employment, and sector-wise technology upgradation.
 - Ensure stable lending to small businesses from commercial banks and cooperative banks
 - Survey geographic areas to determine the viability of MSMEs
 - Promote entrepreneurship by funding emerging startups through the Fund of Funds channel.
 - Encourage entrepreneurship in the MSME sector through credit-plus initiatives.

- Act as the Nodal Agency for the Government's MSME-oriented schemes.

To know more, click the [link](#).

MSME Sector in India

- The MSME sector is considered to be the backbone of the country's economy.
- **Classification of MSMEs:** MSMEs are classified based on Investment in Plant & Machinery and Annual Turnover
- **Micro:** Investment in equipment of not more than ₹1 crore and annual turnover of not more than ₹5 crores
- **Small:** Investment in equipment of not more than ₹10 crore and annual Turnover of not more than ₹50 crore
- **Medium:** Investment in equipment of not more than ₹50 crore and annual turnover of not more than ₹250 crore
- It accounts for 30% of India's GDP, 40% of exports, and one-third of India's manufacturing output.
- **According to the 2021-22 Annual Report of the Department of MSMEs, there are 633.88 lakh unincorporated non-agriculture MSMEs in the country engaged in different economic activities.**
- These MSMEs employ more than 11 crore people.
- **The Union government has set a target of increasing the sector's GDP contribution to 50% by 2025 in line with India's goal of becoming a \$5 trillion economy.**

Challenges faced by the MSME Sector

- **Financial Constraint:** Only 16% of SMEs have been able to obtain timely finance, thus small and medium firms have had to rely on their resources.
- This has made it difficult for such smaller firms to grow which in turn, negatively impacts the economy.
- **Innovation:** The Indian MSME sector has been affected by a lack of innovation and entrepreneurial spirit.
- As a result of the continued use of outdated technology, Indian MSMEs have lower productivity in comparison to larger firms.
- This makes it difficult for such firms to compete with larger firms.
- **Lack of awareness:** The MSME sector struggles to access government assistance such as emergency lines of credit, equity participation, etc due to limited awareness and communication gaps.
- **Informal nature of the sector:** An estimated 86% of the MSMEs in the manufacturing sector are unregistered.
- A similar situation has been observed in other sectors involving MSMEs.
- The lack of formal registration increases the credit gap and impacts their ability to access credit.
- **Economic:** Economic uncertainties like fluctuations in raw material prices and market demand are other factors that impact the stability of MSMEs.
- **Women-specific issues:** Although the number of women-led MSMEs in India has increased from 2.15 lakh to 1.23 crore, they face a financial gap of \$158 billion.
- About 90% of women-owned SMEs in India are still reliant on informal credit.
- Social attitudes and socio-economic constraints are other problems faced by women-led MSMEs.

Way forward

- Authorities must take necessary steps to encourage cash flow-based lending by financial institutions, ease credit and repayment options, and help resolve disputes over payments.
- Cluster development can help overcome infrastructure bottlenecks by helping MSMEs collaborate and share resources.
- MSMEs must be assisted in entering into B2B and B2C e-commerce marketplaces and encouraged to adopt modern technology to improve their productivity.
- Fostering women's education and supporting funding institutions in providing loans to women entrepreneurs will help tackle issues faced by a large number of MSMEs while also encouraging women to become entrepreneurs.

Conclusion

- The RAMP programme and its new sub-schemes are a reflection of the Indian government's commitment to fortifying the MSME sector and realizing its potential. The growth of the sector will however require steps to promote financial inclusion, innovation, and empowerment of entrepreneurs.

To know more click the [link](#).

India's Stationary Course in the Shipping Value Chain as Compared to China

PRIMARY SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

News summary:

- The article discusses **India's position in the global shipping industry compared to China**. It highlights how India, once ahead of China in merchant shipping until the late 1980s, has not significantly progressed in the fields of ship owning, chartering, financing, and building.

India vs. China in Shipping – Historical Perspective

- Early Tradition and Modern Beginnings:** India has a long tradition of seafaring and maritime activities, evident from its historical trade routes and cultural exchanges with other civilizations. In the modern era, India started to develop its shipping industry, establishing a foundation in shipowning and maritime operations.
- Post-Independence Growth:** The Indian government played a significant role in supporting the industry through public sector enterprises, and India became recognized for its capabilities in shipping.
- Shipowning and Seafaring:** The country produced **skilled seafarers** and began to gain a reputation in the global maritime industry for its proficient workforce. India's participation in the **International Maritime Organization** further bolstered its standing.
- Expansion and Diversification:** The shipping sector in India saw diversification with private players entering the field, previously dominated by large public sector entities.
- Shipyards in India started showing the potential to build ships competitively for the global market, leveraging labour arbitrage much earlier than in other sectors like IT.
- Focus on Seafarer Training:** Training centers in Mumbai and Kolkata, and later across the country, churned out seafarers of various grades, enhancing India's presence in global shipping.
- Ship Management and Foreign Exchange Earnings:** Indians ventured into ship management, bringing their negotiation skills and operational efficiency into this arena. Indian seafarers and management companies contributed significantly to the country's foreign exchange earnings.
- Lack of Advancement in Shipbuilding and Owning:** Despite these strengths, India has not significantly advanced in shipbuilding or owning. The state-owned Shipping Corporation of India and other shipyards have seen declining orders, and Indian shipowners often rely on purchasing second-hand ships.

What is International Maritime Organization?

- The International Maritime Organization (IMO) is a specialized agency of the United Nations responsible for regulating shipping.
- Established in 1948** as the **Inter-Governmental Maritime Consultative Organization (IMCO)** and coming into force in 1959, **its name was changed to the International Maritime Organization in 1982**.
- Headquartered in London, United Kingdom**, the IMO plays a fundamental role in shaping the maritime industry, making it safer and more environmentally friendly, and ensuring that international trade can be conducted efficiently and sustainably across the world's oceans.

India vs. China in Shipping – Shift in Dynamics

- Yangtze River's Role:** The Yangtze River is a central artery for China's shipping industry. It's not just a historic and cultural symbol but also a hub of modern shipping and engineering marvels.
- Rapid Development in Shipbuilding:** **By 2020, it was reported that China was responsible for making half of all ships globally.** This growth is largely attributed to a focused government strategy to enhance shipbuilding capabilities, with Chinese shipowners primarily building their vessels at state-owned yards.
- Global Presence in Shipping:** Chinese ships are involved in global trade, bringing in raw materials from across the world, including from Chinese-owned mines in distant locations like Peru and Africa, and exporting finished products globally.
- Contrast with India's Shipping Industry:** Despite a strong start and a history of modern ship ownership, India has not significantly advanced in shipbuilding or ownership. The Indian government's focus has been more on expanding the seafarer population and ship management rather than on owning and building ships.

Yangtze River – China

- The Yangtze River, the **longest river in China and Asia** and the third-longest globally, spans 3,915 miles (6,300 km).
- Originating from the **Tibetan Plateau** and emptying into the East China Sea, the river passes through or **borders ten provinces or regions**.
- It is fed by eight major tributaries: the Yalung, Min, Jialing, and Han rivers on its left bank, and the Wu, Yuan, Xiang, and Gan rivers on its right.
- In Western contexts, the river is often referred to as the Yangtze, a name derived from the ancient Yang fiefdom.
- In China, it is commonly known as Chang Jiang ("Long River"), but also referred to as Da Jiang ("Great River") or simply, Jiang ("The River").

The article compares India and China in the shipping industry, highlighting India's historical strengths, challenges, and missed opportunities. It emphasizes the need for strategic focus on shipbuilding and ownership for economic and strategic benefits.

UPSC Previous Year Practice Question

Q. Sea is an important Component of the Cosmos' Discuss in the light of the above statement the role of the IMO (International Maritime Organisation) in protecting environment and enhancing maritime safety and security. **(2023)**
Q. With respect to the South China sea, maritime territorial disputes and rising tension affirm the need for safeguarding maritime security to ensure freedom of navigation and over flight throughout the region. In this context, discuss the bilateral issues between India and China. **(2014)**

MCQs

Q. Recently, which of the following States has explored the possibility of constructing an artificial inland port to be connected to sea by a long navigational channel? **(UPSC 2016)**

- (a) Andhra Pradesh
- (b) Chhattisgarh
- (c) Karnataka
- (d) Rajasthan

Answer: (d)

Q. Which one of the following is the best description of 'INS Astradharini', that was in the news recently? **(UPSC 2016)**

- (a) Amphibious warfare ship
- (b) Nuclear-powered submarine
- (c) Torpedo launch and recovery vessel
- (d) Nuclear-powered aircraft carrier

Answer: (c)

Q. Between India and East Asia, the navigation-time and distance can be greatly reduced by which of the following? **(UPSC 2011)**

1. Deepening the Malacca straits between Malaysia and Indonesia.
2. Opening a new canal across the Kra Isthmus between the Gulf of Siam and Andaman Sea.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Q. Which one among the following has the largest shipyard in India? **(UPSC 2003)**

- (a) Kolkata

- The Yangtze holds immense significance in China as the nation's main waterway, its primary agricultural region, and home to nearly one-third of China's population.

Significance of Yangtze River

- **Economic and Commercial Lifeline:** In modern times, the Yangtze has transformed into a crucial economic artery for China. It is a hub of commerce and industry, playing a vital role in China's economic development.
- **The Three Gorges Project:** The construction of the Three Gorges Dam on the Yangtze River is highlighted as a significant achievement, adding to the river's importance and utility.
- **Maritime Activity and Shipbuilding:** There is bustling maritime activity on the Yangtze, with merchant ships and barges using the river extensively for transportation. The river is also a site for shipbuilding and repair, contributing significantly to China's maritime industry.
- **Strategic Importance:** The Yangtze's role in shipbuilding and maritime activities also underscores its strategic importance, both economically and in terms of China's presence in international trade and maritime affairs.



- (b) Kochi
- (c) Mumbai
- (d) Visakhapatnam

Answer: (b)

Significance of Shipping in India

- **Economic Growth and Foreign Exchange Earnings:** Indian seafarers and their management companies bring in significant foreign exchange earnings, estimated at around **\$6 billion annually**.
- **Global Maritime Influence:** Shipbuilding and owning would not only enhance India's presence in the international trade scene but also give it a seat at the table in the global maritime industry.
- **National Security and Defense:** A strong shipbuilding industry is integral to a robust naval base, contributing to national defense and security.
- **Employment and Skill Development:** The expansion of the shipping industry, including shipbuilding, can create jobs and contribute to skill development.
- **Competitive Advantage in Global Shipping:** India, with its history in modern shipowning and potential in shipbuilding, can gain a competitive edge in the global shipping market.
- **Diversification of Economic Activities:** Developing the shipbuilding sector could diversify India's economic activities, reducing dependence on certain sectors and promoting a more balanced economic growth.
- **Infrastructure and Technological Development:** Investing in shipbuilding will necessitate the development of infrastructure and technology, which can have spillover benefits for other industries and the economy as a whole.

India's Missed Opportunities

- **Lack of Strategic Growth in Indian Shipbuilding:** India's share in global shipbuilding has remained minimal, failing to reach even modest targets set by the government. Successive Indian governments have not prioritized shipbuilding and ownership, leading to a stagnation in these areas.
- **Ineffective Policies and Plans:** The Indian government's **Maritime Agenda 2020** aimed to increase India's global shipbuilding share but failed to achieve its targets.
- **The Maritime India Vision 2030** doesn't focus on shipbuilding and owning, despite outlining key themes for maritime development.
- **Strategic and Economic Implications:** The lack of focus on shipbuilding and owning is a missed opportunity for India, given its long coastline and strategic location. Shipbuilding is essential not only for economic reasons but also for enhancing India's strategic and military capabilities.

Maritime India Vision 2030

- The Prime Minister of India will unveil a **decade-long strategy** for the maritime sector at the Maritime India Summit in November 2020.
- This strategy, which will replace the existing Sagarmala initiative, is designed to enhance India's waterways, bolster the shipbuilding industry, and promote cruise tourism.

Key Initiatives and Development Projects:

- **Maritime Development Fund:** This Rs. 25,000-crore fund will offer cost-effective, long-duration financing for the sector, with a Rs. 2,500 crore contribution from the Central Government spread over seven years.
- **Port Regulatory Authority:** Under the proposed Indian Ports Act, which will supersede the 1908 Act, a nationwide port authority will be established. This move aims to oversee major and minor ports across India, fostering structured development in the port sector to attract investment.
- **Eastern Waterways Connectivity Transport Grid Project:** Focused on improving regional connectivity with neighboring countries like Bangladesh, Nepal, Bhutan, and Myanmar.
- **Riverine Development Fund:** This initiative proposes affordable, long-term financing for inland vessels through the Riverine Development Fund (RDF). Additionally, it suggests expanding the tonnage tax scheme, currently applicable to ocean-going ships and dredgers, to include inland vessels, thereby increasing their availability.
- **Rationalization of Port Charges:** The plan involves making port charges more competitive by eliminating hidden fees imposed by ship liners, thereby introducing greater transparency.
- **Promotion of Water Transport:** The strategy emphasizes using waterways to alleviate congestion in urban areas and developing them as an alternate means of urban transport.

Government Initiatives for Enhancing Shipping Industry

- **Sagarmala Project:** Launched in 2015, the Sagarmala Project is a national initiative to modernize India's Ports so that port-led development can be augmented and coastlines can be developed to contribute to India's growth.
- It aims to reduce logistics costs for both domestic and EXIM (Export-Import) cargo with minimal infrastructure investment.
- **Maritime India Vision 2030:** This is a comprehensive initiative aimed at transforming the Indian maritime sector. It focuses on several key areas including modernizing and enhancing port infrastructure, improving efficiency in logistics, increasing the use of inland waterways for transportation, and developing coastal shipping.
- **National Shipbuilding Policy:** The Indian government has proposed a National Shipbuilding Policy to promote the development of the shipbuilding industry in India. This includes financial support and incentives for shipyards and aims to boost domestic shipbuilding and repair facilities.
- **Make in India in Defence Shipbuilding:** Under the 'Make in India' initiative, the government is encouraging the production of defense ships in India. This initiative aims to reduce reliance on imports and to make India a global shipbuilding hub.
- **Coastal Berth Scheme:** Part of the Sagarmala program, this scheme is designed to develop coastal shipping in India. It involves setting up new berths and modernizing existing berths at various ports for coastal cargo and passenger movement.
- **Direct Port Delivery (DPD) and Direct Port Entry (DPE):** These initiatives are aimed at reducing congestion, dwell time and cost of handling containers at Indian ports.
- **GST Exemption on Bunker Fuel:** The Indian government has exempted bunker fuel for use in vessels in foreign-bound voyages from the Goods and Services Tax (GST), which is expected to reduce costs for Indian shipping companies.
- **Relaxation of Cabotage Law:** The Indian government relaxed its cabotage law, allowing foreign-flagged vessels to engage in coastal shipping of certain commodities, with the aim of reducing the cost of transporting goods and boosting the efficiency of ports.

Way Forward

- **Investment in Shipbuilding Infrastructure:** India should focus on upgrading and expanding its shipbuilding facilities.
- **Government Support and Policy Reforms:** The government could implement policies that encourage investment in the shipping industry. This includes financial incentives for building new ships, tax breaks, and subsidies for shipyards.
- **Focus on Innovation and Technology:** Embracing modern shipbuilding technologies and practices could be pivotal which might involve investing in research and development to innovate in areas like eco-friendly ships, digitalization, and automation.
- **Enhancing Maritime Education and Training:** Strengthening maritime education and training can ensure a skilled workforce for the industry.

- **Strategic Collaborations and Partnerships:** Forming partnerships with leading global players in shipbuilding and maritime services could provide the necessary expertise and market access.
- **Fostering a Competitive Environment:** Encouraging competition among domestic players and reducing bureaucratic hurdles can foster a more dynamic and efficient maritime industry.
- **Expanding into Niche Markets:** India might look into specializing in certain types of vessels where it could develop a competitive advantage, like small to medium-sized ships or specific types of specialized vessels.
- **Leveraging Geographic Advantage:** Utilizing India's strategic geographic location for developing ports and shipping routes can help in strengthening its position in the global shipping network.
- **Sustainability and Green Initiatives:** Investing in sustainable and environmentally friendly shipbuilding practices could position India as a leader in green shipping.

Conclusion

Shipbuilding has strategic and economic importance for India, given its long coastline and pivotal geographic location. Advancing in shipbuilding and owning would not only bolster India's position in the global maritime industry but also strengthen its overall industrial and military capabilities.

ART AND CULTURE

Why Has a Survey Been Approved at the Shahi Idgah?

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- Recently, a survey at the Shahi Idgah, a mosque in Mathura, was approved following a decision by the Allahabad High Court.
- The survey relates to a historical and religious dispute involving the Shahi Idgah mosque and the adjacent Krishna Janmabhoomi temple.

Background of the Case

- The Allahabad High Court has allowed a court commission to survey the Shahi Idgah mosque, which is adjacent to the Krishna Janmabhoomi temple.
- The survey request was filed on behalf of the Hindu deity Shri Krishna and seven others.
- They claim that the mosque was constructed over Shri Krishna's birthplace by Mughal Emperor Aurangzeb in 1670.
- The U.P. Sunni Central Waqf Board and the Shahi Idgah Masjid Committee argue that the mosque does not encroach on the land associated with Lord Krishna's birthplace and that the plaintiffs' claims are speculative and lack documentary evidence.
- The mosque committee references the Places of Worship Act, 1991, which prohibits changing the religious character of any place of worship as it existed on August 15, 1947.
- There are legal challenges to this Act, debating its constitutionality and its impact on religious property rights.
- Following the landmark Babri Masjid judgment in 2019, several cases have been filed concerning the Krishna Janmabhoomi-Shahi Idgah dispute.

Historical Context of the Land

- Mathura is traditionally believed to be the birthplace of Lord Krishna, a major deity in Hinduism. The city has been a center of pilgrimage for thousands of years.
- The Shahi Idgah mosque, located adjacent to the Krishna Janmabhoomi temple, was allegedly built on the orders of the Mughal emperor Aurangzeb in 1670.
- Aurangzeb is known for his orthodox religious policies and is often accused of demolishing Hindu temples to build mosques, although the extent of this is debated among historians.
- Before the mosque's construction, the site is said to have housed the Keshava Deva temple, built during the reign of Jahangir, Aurangzeb's grandfather, by Bir Singh Bundela.
- This temple was reportedly patronized by Dara Shukoh, Aurangzeb's brother.
- The land underwent changes in ownership during the British colonial period.
- In 1815, Raja Patni Mal of Benaras bought the land from the East India Company, and it was later sold to Jugal Kishore Birla, who established the Shri Krishna Janmabhoomi Trust.
- After India's independence in 1947, the 13.77-acre land was officially placed in the trust of the Shri Krishna Janmabhoomi Trust.
- There was an agreement in 1968 between the Sri Krishna Janmasthan Seva Sangh and the Shahi Idgah Masjid Trust, which led to a sharing of the land.

Court's Decision

- The Allahabad High Court has approved an application for the appointment of a court commission to inspect the Shahi Idgah mosque.

News summary:

The approval of a survey at the Shahi Idgah in Mathura by the Allahabad High Court, amid a historical and religious dispute with the adjacent Krishna Janmabhoomi temple, marks a pivotal moment. This decision follows a legal tussle invoking the Places of Worship Act, 1991, sparking debates on historical land claims and religious rights in India.

UPSC Previous Year Practice Question

- Q. What are the challenges to our cultural practices in the name of Secularism? (2019)
- Q. How the Indian concept of secularism is different from the western model of secularism? Discuss. (2018)

MCQs

Q. Consider the following statements: (UPSC 2020)

1. The Constitution of India defines its 'basic structure' in terms of federalism, secularism, fundamental rights and democracy.
 2. The Constitution of India provides for 'judicial review' to safeguard the citizens' liberties and to preserve the ideals on which the Constitution is based. Which of the statements given above is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer: (d)

Q. What does the Places of Worship (Special Provisions) Act, 1991, state regarding places of worship?

- a) It allows the alteration of religious sites post-1947

- The decision was made by Justice Mayank Kumar Jain, who emphasized that the sanctity of the campus should be strictly maintained during the execution of the commission.
- The Allahabad High Court transferred to itself all suits pending before the Mathura Court concerning various disputes related to the Sri Krishna Janmabhoomi-Shahi Idgah Mosque.
- When the Shahi Idgah Masjid approached the Supreme Court for a stay on the survey, the court did not provide any relief.
- Justice Sanjiv Khanna of the Supreme Court indicated they would not intervene at this stage but allowed for future appeals if necessary.

Places of Worship (Special Provisions) Act, 1991

- The purpose of this legislation was to preserve the existing status of religious places of worship as of August 15, 1947, preventing any conversion of these places and ensuring the maintenance of their religious characteristics.

Key Provisions of the Act include:

- **Prohibition of Conversion (Section 3):** This section prohibits the conversion of any place of worship, whether partially or completely, from one religious denomination to another or within the same denomination.
- **Maintenance of Religious Character (Section 4(1)):** It mandates that the religious identity of a place of worship remains the same as it was on August 15, 1947.
- **Abatement of Pending Cases (Section 4(2)):** This section stipulates that any ongoing legal proceedings regarding the conversion of a place of worship's religious character before August 15, 1947, will be terminated, and new cases on this matter cannot be initiated.
- **Exceptions to the Act (Section 5):** The Act does not apply to ancient and historical monuments, archaeological sites, and remains covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958.
 - It also excludes cases that have already been settled, disputes resolved by mutual agreement, or conversions that occurred before the Act came into effect.
 - Furthermore, it does not extend to the specific place of worship known as Ram Janmabhoomi-Babri Masjid in Ayodhya, including any associated legal proceedings.
- **Penalties (Section 6):** Section 6 outlines penalties, including a maximum imprisonment term of three years and fines, for violations of the Act.

Criticism of the Act

- **Bar on Judicial Review:** Critics argue that the Act restricts judicial review, a fundamental aspect of the Constitution, undermining the checks and balances system and limiting the judiciary's role in safeguarding constitutional rights.
- **Arbitrary Retrospective Cutoff Date:** The Act has faced criticism for using an arbitrary date (Independence Day, 1947) to determine the status of religious places, with opponents contending that this cutoff date overlooks historical injustices and denies redressal for encroachments that occurred before that date.
- **Violation of the Right to Religion:** Critics claim that the Act infringes upon the religious rights of Hindus, Jains, Buddhists, and Sikhs, restricting their ability to reclaim and restore their places of worship, thus impeding their freedom to practice their religion.
- **Violation of Secularism:** Opponents argue that the Act violates the principle of secularism, a core component of the Constitution, by appearing to favor one community over others, which they contend undermines the equal treatment of religions under the law.
- **Exclusion of Ayodhya Dispute:** The Act has faced specific criticism for excluding the land involved in the Ayodhya dispute, prompting questions about its consistency and concerns regarding the differential treatment of religious sites.

Conclusion

The ongoing legal and historical dispute over the land housing the Shahi Idgah and Krishna Janmabhoomi, highlights the complex interplay of history, religion, and law in this matter. The resolution of this dispute, through the survey and subsequent legal decisions, will have significant implications for the involved parties and potentially for the broader context of religious and historical sites in India.

- b) It prohibits conversion of places of worship as they existed on August 15, 1947
- c) It pertains only to Hindu religious sites
- d) It mandates government ownership of all religious sites

Answer: (b)

Kashi Tamil Sangamam is Strengthening Idea of Ek Bharat Shreshtha Bharat

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- Recently, the second edition of the **Kashi Tamil Sangamam** was inaugurated at the Namo Ghat.
- The programme, **organized by the Ministry of Education**, celebrates, reaffirms, and rediscovers the **age-old links between Tamil Nadu and Varanasi**.

What is Kashi Tamil Sangamam?

- Kashi Tamil Sangamam celebrates various aspects of the **historical and civilizational ties between India's North and South**.

News summary:

The Kashi Tamil Sangamam, inaugurated at Namo Ghat, strengthens the ethos of 'Ek Bharat Shreshtha Bharat,' celebrating the historical ties between North and South India, promoting cultural exchange and technological integration.

UPSC Previous Year Practice Question

- The overarching objective is to foster a closer connection between the two knowledge and cultural traditions of the North and South, promote an appreciation of our shared heritage, and strengthen the people-to-people bonds between these regions.
- The event is coordinated by the **Ministry of Education** in collaboration with several other ministries, including Culture, Textiles, Railways, Tourism, Food Processing, Information & Broadcasting, among others, as well as the Government of Uttar Pradesh.
- This endeavor aligns with the **National Education Policy (NEP), 2020**, which emphasizes integrating India's rich Knowledge Systems with modern knowledge systems.
- **Implementing agencies for the program are IIT Madras and Banaras Hindu University (BHU).**

What is Ek Bharat Shreshtha Bharat?

- **"Ek Bharat Shreshtha Bharat"** is an initiative launched by the Government of India with the aim of **promoting cultural and linguistic diversity**, fostering a spirit of national integration, and enhancing mutual understanding and bonding **between different states and Union Territories (UTs)** of the country.
- The initiative was **launched on October 31, 2015**, on the occasion of the **140th birth anniversary of Sardar Vallabhbhai Patel**, the **Iron Man of India**, who played a significant role in the integration of princely states into the Indian Union after independence.
- Ek Bharat Shreshtha Bharat seeks to strengthen the bonds between different regions of India, fostering a deeper understanding of the country's diverse culture and heritage, and promoting a united and harmonious India.

Key features and objectives:

- **Twinning of States and UTs:** Under this initiative, different states and UTs of India are paired or "twinning" with one another. These pairings are designed to bring together regions with distinct cultures, languages, traditions, and heritage.
- **Cultural Exchange:** The paired states and UTs engage in various cultural exchange activities, including the promotion of each other's art, music, dance, cuisine, festivals, and language.
- **Language Learning and Promotion:** The initiative encourages the learning and promotion of languages spoken in paired states and UTs. Language courses and cultural events are organized to facilitate this exchange.
- **Collaborative Projects:** States and UTs work together on collaborative projects related to various fields, such as education, agriculture, tourism, and more.
- **Celebrations and Events:** Various events and celebrations are organized throughout the year to showcase the rich cultural heritage and traditions of different regions of India.
- **National Integration:** The overarching goal of Ek Bharat Shreshtha Bharat is to promote national integration, unity, and a sense of belonging among the citizens of India, regardless of their linguistic or cultural backgrounds.

Cultural Significance of Kashi Tamil Sangamam

- In the 15th century, King Parakrama Pandya, who ruled the Madurai region, aspired to build a temple for Lord Shiva.
- He journeyed to Kashi (Uttar Pradesh) to acquire a lingam. During his return, he paused to rest under a tree.
- When he attempted to resume his journey, the cow carrying the lingam refused to move.
- Recognizing this as the Lord's divine will, Parakrama Pandya installed the lingam at that spot, which later became known as **Sivakasi, Tamil Nadu**.
- For devotees who could not undertake the pilgrimage to Kashi, the Pandyas constructed the **Kasi Viswanathar Temple**, which stands today in Tenkasi, southwestern Tamil Nadu, near the border with Kerala.
- The national consciousness among people was awakened by saints like **Adi Shankaracharya and Ramanujacharya** through their journeys, uniting our country. India has remained immortal as a nation for thousands of years as a result of this.

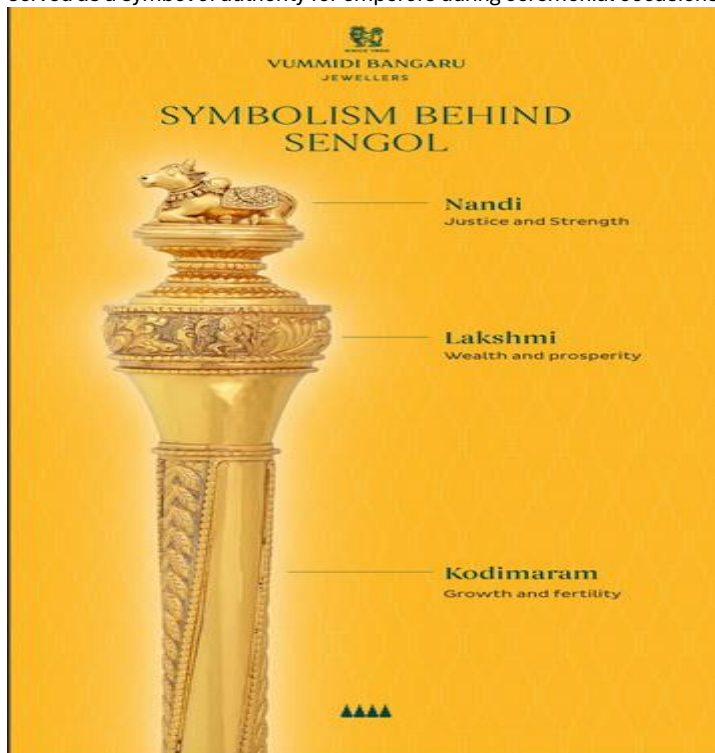
Technological Integration

- One of the significant technological aspects of the Kashi Tamil Sangamam was the use of **'Bhashini'**, an **artificial intelligence-based language platform**.
- This platform was utilized to provide simultaneous Tamil translations of Prime Minister speech.
- Bhashini, launched by the Indian government in 2022, represents a major stride in **AI-driven language translation**, making it possible for people who speak different languages to understand each other in real-time during such events.
- This technology not only facilitates better communication but also **promotes inclusivity and cultural exchange**.

Sengol – About, History and Significance

Q. Discuss the main contributions of Gupta period and Chola period to Indian heritage and culture. **(2022)**
Q. What makes Indian society unique in sustaining its culture? Discuss. **(2019)**

- Sengol is an impressive **scepter** measuring **5 feet in length, adorned with gold plating**. It has a top diameter of 3 inches and a bottom diameter of 1 inch.
- Beyond its ornate appearance, this staff possesses a wooden core and is embellished with **a symbol representing justice and strength** in the form of a **seated Nandi figure**.
- Sengol, a term rooted in the Tamil word '**Semmai**,' carries profound meaning denoting '**Righteousness**.'
- Typically crafted from gold or silver and adorned with precious stones, a Sengol scepter served as a symbol of authority for emperors during ceremonial occasions.



History of Sengol

- Historically, Sengol is closely associated with the **Chola Empire**, one of South India's longest-reigning and most influential dynasties.
- The Cholas governed regions spanning Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Telangana, Odisha, and Sri Lanka from the 9th to the 13th century CE.
- Renowned for their military prowess, maritime trade, administrative efficiency, cultural patronage, and temple architecture, the Cholas had a tradition of passing the Sengol scepter from one monarch to the next as a mark of succession and legitimacy.
- This ceremonial act was typically presided over by a high priest or guru, who bestowed the new ruler with the Sengol scepter.

Sengol as a Part of India's Independence

- **C. Rajagopalachari** proposed adopting the Chola model of passing the Sengol scepter as a fitting ceremony for India's independence.
- He believed it would not only reflect India's ancient civilization and culture but also exemplify its unity in diversity.
- **On August 14, 1947**, the Sengol scepter was presented to **Prime Minister Nehru** by the **Thiruvavaduthurai Adheenam**, a 500-year-old Saivaite monastery.
- A golden scepter, crafted by the **renowned jeweler Vummidi Bangaru Chetty of Madras (now Chennai)**, featured a hand-carved Nandi symbolizing 'Nyaya' at its pinnacle.

Symbolism in Parliament

- After receiving the Sengol scepter in 1947, Nehru initially kept it at his residence in Delhi.
- Later, he decided to donate it to the Anand Bhavan Museum in Allahabad (now Prayagraj), his ancestral home.
- Established by his father, Motilal Nehru, in 1930, this museum aimed to preserve the history and legacy of India's freedom movement.
- The Sengol scepter remained at the Anand Bhavan Museum for more than seven decades.
- In 2021-22, during the Central Vista redevelopment project, the government made the decision to revive this historical artifact and install it in the new Parliament building.
- Positioned near the Speaker's seat, the Sengol scepter will be accompanied by a plaque explaining its history and significance.
- The installation of the Sengol scepter in the new Parliament building symbolizes not only a historic gesture but also conveys a profound message.

- It underscores that India's democracy is deeply rooted in its ancient traditions and values, emphasizing its inclusivity and respect for diversity and pluralism.

Conclusion

The Kashi Tamil Sangamam serves as an effective platform for dialogue and reinforces the notion of 'Ek Bharat Shreshtha Bharat'. The event was attended by approximately 1,400 participants from Tamil Nadu and Puducherry.

AGRICULTURE

Need To Transform Agri-food System

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- The **United Nations Food and Agriculture Organization (FAO)** report highlights the **high hidden costs of global agrifood systems**.
- In India, these costs amount to nearly **11% of GDP**, leading to poverty, environmental damage, and health issues.
- The report emphasizes the urgency to transform agrifood systems, suggesting **multi-cropping as a viable solution**.

What is the issue?

- The United Nations Food and Agriculture Organization (FAO) report reveals the enormous hidden costs of current global agrifood systems, exceeding \$10 trillion.
- In countries like India, these costs account for nearly **11% of GDP**, manifesting in higher poverty, environmental damage, and health impacts like undernourishment and unhealthy diets.
- India's agricultural productivity gains over the past 50 years, largely through **monocropping and chemical-intensive practices**, have led to negative consequences.
- These include loss of seed sovereignty, erosion of Indigenous knowledge, nutritional deficiencies in diets, ecological damage (like excessive groundwater extraction), and increased farmer indebtedness.
- The Indian government's procurement policy heavily favors rice and wheat, leading to a decrease in the cultivation of coarse grains and a rise in water-intensive cash crops like sugarcane and areca nut.
- This trend impacts food security and the production of nutritional crops, exacerbating biodiversity loss and environmental issues.

What is Intensive Agriculture?

- Intensive agriculture, also known as intensive farming**, is a type of agriculture characterized by a high level of input and output per unit of agricultural land area.
- It typically involves the use of large amounts of fertilizers, pesticides, and other chemical inputs, as well as extensive use of irrigation and mechanization, to significantly increase crop yields.
- The primary goal is to maximize crop yield or livestock production. This is achieved through the use of high-yield crop varieties, heavy use of chemical fertilizers, and advanced technological inputs.
- Often involves the cultivation of a single crop over a large area for consecutive seasons, known as **monoculture**.
- This approach can lead to greater efficiencies in planting and harvesting but reduces biodiversity and can make crops more susceptible to pests and diseases.
- Relies heavily on synthetic fertilizers and pesticides** to boost crop growth and control pests and diseases. While this increases crop yields, it can also lead to environmental pollution and can degrade soil quality over time.
- Intensive use of water for irrigation** is common to ensure optimal crop growth, especially in areas with insufficient rainfall. This can lead to water scarcity and affect the natural water balance in the region.
- While it can lead to increased production and profits, it often requires significant investment and can lead to economic challenges for small-scale farmers who cannot afford such technologies.

Impacts of Intensive Agriculture

- Negative Environmental Consequences:** Intensive agriculture, particularly the **monocropping systems and chemical-intensive farming practices** adopted during the Green Revolution, have led to adverse ecological consequences. This includes **excessive extraction of groundwater** and a decrease in biodiversity due to the focus on monocultures of paddy and wheat.
- Impact on Nutritional Diversity:** The shift from diverse crop varieties to monoculture plantations has compromised the nutritional needs of households. There's been a decline in the cultivation of nutritionally rich crops like pulses and millets.

News summary:

The United Nations FAO report underscores the high costs of global agrifood systems, particularly in India. It also urges a shift from monoculture to diversified farming for ecological and economic sustainability.

UPSC Previous Year Practice Question

Q. Explain the changes in cropping pattern in India in the context of changes in consumption pattern and marketing conditions. (2023)

Q. What is Integrated Farming System? How is it helpful to small and marginal farmers in India? (2022)

Q. What are the present challenges before crop diversification? How do emerging technologies provide an opportunity for crop diversification? (2021)

Q. What are the major factors responsible for making rice-wheat system a success? In spite of this success how has this system become bane in India? (2020)

Q. How far is the Integrated Farming System (IFS) helpful in sustaining agricultural production? (2019)

Q. How has the emphasis on certain crops brought about changes in cropping patterns in recent past? Elaborate the emphasis on millets production and consumption. (2018)

Q. What are the major reasons for declining rice and wheat yield in the cropping system? How crop diversification is helpful to stabilize the yield of the crop in the system? (2017)

Q. Explain various types of revolutions, took place in Agriculture after Independence in India. How these revolutions have helped in poverty alleviation and food security in India? (2017)

Q. In view of the declining average size of land holdings in India which has made agriculture non-viable for a majority of farmers, should contract farming and land leasing be promoted in agriculture? Critically evaluate the pros and cons. (2015)

MCQs

Q. Among the following, which one is the least water-efficient crop? (UPSC 2021)

(a) Sugarcane

- **Economic Viability and Farmer Indebtedness:** The reliance on seeds and fertilizers from multinational corporations has increased the indebtedness among agrarian households. The average monthly household income of a farming household is low, making agriculture increasingly unviable.
- **Procurement Policies and Crop Favoritism:** The Indian government's procurement policies **favor rice and wheat**, leading to a **neglect of coarse grains like jowar, bajra, ragi, maize, and barley**. This has resulted in a significant reduction in the cultivation of these grains.
- **Water-Intensive Cash Crops:** Policies favoring certain cash crops like **sugarcane and areca nut** have exacerbated pressure on water resources and contributed to air and water pollution.
- **Impact of Global Trade Relations:** International market fluctuations and trade policies have historically influenced local agricultural practices, often to the detriment of local farmers.

Impact of the Green Revolution in India

- The Green Revolution, initiated in the 1960s, significantly enhanced India's agricultural productivity.
- It introduced high-yielding varieties of crops like paddy and wheat, along with chemical-intensive farming practices.
- While this led to a dramatic increase in food production, it also had several unintended consequences:
- **Reduction in Crop Diversity:** There was a shift from diverse crops to monocultures, primarily focusing on rice and wheat. This reduced the cultivation of nutritionally rich staples like pulses and millets.
- **Environmental Impact:** The intensive farming practices led to excessive extraction of groundwater, soil degradation, and a decline in biodiversity.
- **Economic Challenges for Farmers:** The reliance on purchased seeds and fertilizers increased farmers' indebtedness and made agriculture less economically viable for many.
- **Nutritional Concerns:** The focus on rice and wheat compromised the nutritional needs of households, as these crops are less nutritionally diverse compared to traditional staples.

Favoured Crops in India and Their Impact

- **Rice and Wheat:** These two crops constitute more than 70% of India's agricultural production.
- The focus on high-yielding varieties of rice and wheat was a significant aspect of the Green Revolution in India.
- This focus has led to monocropping systems and chemical-intensive farming practices.
- Farmers are incentivized to grow these crops over others like coarse grains (jowar, bajra, ragi, maize, barley).
- This has resulted in a decrease in the cultivation of coarse grains by 20% between 1966-1967 and 2017-2018, while the cultivation area for rice and wheat increased by about 20% and 56%, respectively.
- **Sugarcane and Areca Nut:** These water-intensive cash crops have also flourished due to favorable policies, such as investments in dams and canal irrigation (beneficial for sugarcane) and free electricity for borewells (favorable for areca nut).
- It has had adverse effects on biodiversity.
- It has also increased pressure on groundwater resources and contributed to air and water pollution.
- **Food and Nutritional Security:** Despite the production of vast quantities of rice and wheat, small and marginal farmers in India remain among the most food and nutrition insecure. This is ironic, given that they are major contributors to the agricultural sector.
- **Global Market Influences:** The influence of global market fluctuations, as seen with soy prices and supply gluts, has directly impacted local farmers and agro-companies.
- In the Malwa region, for example, fluctuations in soy prices have eroded incomes for local soy farmers.

Steps Needed to Transform Agri-Food System

- **Shifting to Multi-Cropping Systems:** Moving away from monoculture and chemical-intensive farming practices towards multi-cropping systems. These systems can protect farmers' well-being, improve nutritional outcomes, and benefit ecological health.
- **Rebalancing Crop Favoritism:** Policies that currently favor the cultivation of rice and wheat, often neglecting other nutritious and ecologically sustainable crops like pulses, millets, and coarse grains, need to be revised. This would involve adjusting procurement policies and subsidies to support a broader range of crops.

- (b) Sunflower
- (c) Pearl millet
- (d) Red gram

Answer: (a)

Q. In the context of India, which of the following is/are considered to be of practice(s) of eco-friendly agriculture? (UPSC 2020)

1. Crop diversification
2. Legume intensification
3. Tensiometer use
4. Vertical farming

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 3 only
- (c) 4 only
- (d) 1, 2, 3 and 4

Answer: (d)

Q. With reference to the circumstances in Indian agriculture, the concept of "Conservation Agriculture" assume significance. Which of the following fall under the Conservation Agriculture? (UPSC 2018)

1. Avoiding monoculture practices
2. Adopting minimum tillage
3. Avoiding the cultivation of plantation crops
4. Using crop residues to cover soil surface
5. Adopting spatial and temporal crop sequencing/crop rotations

Select the correct answer using the code given below:

- (a) 1, 3 and 4
- (b) 2, 3, 4 and 5
- (c) 2, 4 and 5
- (d) 1, 2, 3 and 5

Answer: (c)

Q. What are the significances of a practical approach to sugarcane production known as the 'Sustainable Sugarcane Initiative'? (UPSC 2014)

1. Seed cost is very low in this compared to the conventional method of cultivation.
2. Drip irrigation can be practiced very effectively in this.
3. There is no application of chemical inorganic fertilizers at all in this.
4. The scope for intercropping is more in this compared to the conventional method of cultivation.

Select the correct answer using the code given below.

- (a) 1 and 3 only
- (b) 1, 2 and 4 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3 and 4

Answer: (b)

- **Promoting Crop Diversification:** Introducing diversified multi-cropping systems, rooted in agroecology principles, can revitalise degraded land and soil. These systems include a mix of legumes, pulses, oilseeds, trees, and livestock, improving soil health and supporting biodiversity.
- **Economic and Environmental Considerations:** The transition should factor in the "hidden costs" of current systems and emphasize the long-term benefits of diversified farming both for the environment and farmer income.
- **Gradual Transition for Farmers:** A systematic and gradual shift from mono-cultivation to more diverse farming practices. This could start with moving from chemical-intensive practices to non-pesticide management and natural farming, reducing input costs and improving environmental outcomes.
- **Value Addition and Income Diversification:** Farmers can diversify their income sources by incorporating practices like value addition, livestock, and poultry rearing.
- **Implementing Transition Pathways:** A proposed pathway includes allocating land for commercial crops, food and fodder production, and environmental services. Over time, the focus can shift more towards food and fodder and integrating tree species and livestock rearing.

What is Crop Diversification?

Crop diversification is an agricultural strategy that involves growing a variety of different crops in the same area or on the same farm. This practice contrasts with monoculture, where only one type of crop is cultivated over a large area.

- **Temporal Diversification:** This involves planting different crops in the same field, but at different times or seasons. This method, known as crop rotation, helps in breaking pest and disease cycles and managing soil fertility.
- **Spatial Diversification:** This is achieved by growing different crops in the same field at the same time. It can be done through intercropping (growing two or more crops in proximity) or mixed cropping (growing several crops in the same area without a distinct pattern).
- **Diversification through Varieties:** This involves planting different varieties of the same crop. This approach can reduce the risk of total crop failure due to disease, pests, or adverse weather conditions, as different varieties may have different levels of resistance and tolerance.
- **Structural Diversification:** This involves integrating other forms of agricultural activities such as agroforestry (combining agriculture and forestry practices) or integrating crop farming with livestock rearing.

What is 'akkadi saalu'?

- "Akkadi Saalu" is a traditional agricultural practice in parts of Karnataka, India. The term roughly translates to "patterned row" in Kannada.
- It is a method of farming that involves intercropping – growing two or more crops in proximity.
- This practice is part of a broader set of sustainable agricultural techniques that emphasize diversity and synergy between different plant species.
- It involves planting a combination of crops such as legumes, pulses, oilseeds, trees, shrubs, and sometimes integrating livestock. This diversity is beneficial for soil health and helps in pest control.
- This method provides various ecosystem services like nitrogen fixation (by leguminous plants), and pest management (certain plants act as pest traps).
- By having a variety of plants, the soil remains fertile and less prone to erosion. The diverse root systems and organic matter from different plants enhance soil structure and nutrient content.
- The diversity of crops in "Akkadi Saalu" makes the system more resilient to pests and diseases, reducing the reliance on chemical pesticides.

Benefits of Crop Diversification

- **Environmental Benefits:** Diversified cropping systems contribute to ecological health. They can improve soil health by enhancing soil structure and fertility, facilitating water retention, and reducing erosion.
- Intercropping with various plants, including legumes, trees, and shrubs, can support biodiversity, provide pest traps, and contribute to nitrogen fixation in the soil.
- **Nutritional Outcomes:** Diversifying crops leads to a more varied food basket, which can improve the nutritional quality of diets.
- Crops like millets, legumes, and pulses are nutritionally rich and can be cultivated as alternatives to the dominant rice and wheat crops.
- This helps in addressing issues like undernourishment and unhealthy dietary patterns.
- **Economic Sustainability for Farmers:** Diversification can potentially reduce the heavy reliance on chemical inputs, thus lowering farming costs.

Q. In the context of food and nutritional security of India, enhancing the 'Seed Replacement Rates' of various crops helps in achieving the food production targets of the future. But what is/are the constraint/constraints in its wider/greater implementation? (UPSC 2014)

1. There is no National Seeds Policy in place.
 2. There is no participation of private sector seed companies in the supply of quality seeds of vegetables and planting materials of horticultural crops.
 3. There is a demand-supply gap regarding quality seeds in case of low value and high volume crops.
- Select the correct answer using the code given below.

- (a) 1 and 2
(b) 3 only
(c) 2 and 3
(d) None

Answer: (b)

- It can also provide multiple sources of income for farmers through the sale of different types of crops and products.
- By shifting subsidies to support diversified farming, farmers can be incentivized to preserve natural capital.
- **Reduction of Hidden Costs:** The current monoculture-based, chemical-intensive farming practices have hidden environmental and health costs.
- Diversifying crops can help mitigate these costs by promoting more sustainable agricultural practices.
- **Improved Resilience:** Diversified farming systems are generally more resilient to climate change, pests, and diseases.
- This is because the diversity of crops can reduce the risk of total crop failure and provide a buffer against market and environmental fluctuations.
- **Socioeconomic Benefits:** Crop diversification can also play a role in reducing poverty and indebtedness among farming households by providing more stable and diverse income sources.
- It can also help in revitalizing rural economies through local food production and associated industries.
- **Transition Strategies:** The transition to diversified farming needs to be systematic and supportive. This includes moving away from chemical-intensive practices to more natural farming methods, integrating livestock and poultry for additional income, and providing farmers with the necessary support and incentives for this transition.

Limitations of Crop Diversification

- **Loss of Productivity:** Diversification might lead to a reduction in productivity when measured in terms of kilograms per hectare. This is because monocultures are often optimized for maximum yield of a single crop, while diversified systems spread their productivity across multiple crop types.
- **Transition Challenges:** Shifting from monoculture, especially those reliant on chemical-intensive practices, to diversified cropping systems can be complex and gradual. Farmers need time and support to adjust to new farming practices, such as non-pesticide management and natural farming.
- **Economic Concerns:** There is a perceived risk of a decline in farmer income with the shift to alternative farming systems, even though the long-term benefits might outweigh these short-term losses.
- **Need for Support in Value Addition and Livestock Integration:** For successful diversification, farmers may need to incorporate livestock and poultry, and engage in value addition activities. This requires additional skills, resources, and possibly investment.
- **Institutional and Market Challenges:** There is a need for addressing issues related to local seeds, institutional arrangements for market access, and the labor required in diversified farming.
- **Scaling Up and Collaboration Requirements:** Effective implementation of diversified cropping at a larger scale requires collaboration among various stakeholders, including institutions, policymakers, and social groups. This is necessary to articulate economic incentives and create supportive policies.
- **Environmental Considerations:** While beneficial for the environment, the transition to diversified cropping systems might initially face resistance due to established practices favoring monocultures and high-input agriculture.

Transition Strategies for Farmers

- **Gradual Shift from Monoculture:** Farmers should gradually move away from the monocultivation of crops like rice and wheat. This transition needs to be systematic to allow farmers to adjust.
- **Reduced Reliance on Chemical Inputs:** They should start by moving from chemical-intensive practices to non-pesticide management. Then, gradually adopt natural farming practices to reduce input costs.
- **Diversification of Income Sources:** Farmers can diversify their income by incorporating livestock and poultry, along with the cultivation of crops. This can include partial experimentation on specific land portions.
- **Adopting Multi-Cropping Systems:** Implement diversified multi-cropping systems that include a mix of legumes, pulses, oilseeds, trees, shrubs, and livestock. This approach is beneficial for soil health, biodiversity, and ecological balance.
- **Allocation Strategy:** A visual representation of an ideal diversified farm could include 70% allocated for commercial crops, 20% for food and fodder, and 10% for environmental services. Over time, the fraction for commercial crops could be reduced to 50%.
- **Integration of Tree Species and Livestock:** Incorporating locally suitable tree species for fruits and fodder, along with livestock rearing, can further improve farm incomes.

- **Economic Modelling:** Preliminary economic modelling suggests that such pathways can sustain farm incomes and improve ecological outcomes both in the short term (up to three years) and long term (up to 25 years).
- **Addressing Challenges:** Challenges related to local seeds, market access, labor, and drudgery need to be addressed. This involves institutional arrangements and policy support.
- **Collaboration and Support:** Scaling up these practices requires collaboration among institutions, policymakers, and social groups. Articulating economic incentives for farmers to shift from high-input monoculture to diversified cropping is essential.
- **Policy and Subsidy Redirection:** Redirecting subsidies currently accruing to corporations towards paying farmers for sustaining natural capital is suggested. This would incentivize preserving natural resources rather than depleting them.

Conclusion

The transition strategy involves a multi-faceted approach focusing on gradual change, diversification, ecological sustainability, and economic viability. It calls for collaborative efforts and supportive policies to facilitate this transition while ensuring the financial and ecological well-being of farming communities.

Harvest The Odisha Story To Ensure Food Security

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the News?

- Recently, the Odisha model of food security which is based on equity and sustainability was in news.
- From being a major importer of food grains, Odisha is now the **fourth most significant contributor** to the paddy pool of the **Food Corporation of India**.
- The Odisha Chief Minister cited Odisha's commitment to achieving the 'Zero Hunger' goal at the United Nations World Food Programme headquarters.

Agricultural Transformation in Odisha

- Over the last two decades, **Odisha has transitioned from being an intensive importer of rice (pre-2000s) to producing record crop outputs (13.6 million tonnes in 2020).**
- The **average rice yield in Odisha has nearly tripled between 2000 (10.41 quintals per hectare) and 2020 (27.3 quintals per hectare).**
- **Kalahandi**, which was earlier known as the land of hunger, has transformed into the **rice bowl of the state**.
- Consistent improvements in the agricultural sector in Odisha have made the state surplus in paddy production.
- **Odisha is now the fourth most significant contributor to the paddy pool of the Food Corporation of India.**
- **In 2020-21, Odisha accounted for 9% of the total rice in India and 4.22% of the total food-grain production in India.**
- **Highlights:**
 - Majority of farmers are **small or marginal farmers**
 - **Increase in productivity despite stable crop area**
- Odisha has focused on small and marginal farmers intending to improve their income.
- As a result of the enhanced income, resilient livelihoods have been created and food security improved in the region.
- The implementation of flagship schemes like **KALIA (Krushak Assistance for Livelihood and Income Augmentation)** has helped increase the cultivation of non-paddy crops by raising awareness about scientific crop management practices.
- The **Odisha Millet Mission** has also contributed to improved climate resilience and crop productivity.
- Crop diversification has been accompanied by a reduction in the area under paddy cultivation.

KALIA

News summary:

Odisha's shift from food scarcity to surplus, emphasizing sustainability and equity, showcases resilience in agriculture. Climate-resilient practices, schemes like KALIA, and partnerships bolster food security amid global challenges.

UPSC Mains Practice Questions

Q.1) How has the emphasis on certain crops brought about changes in cropping patterns in the recent past? Elaborate on the emphasis on millet production and consumption. (UPSC GS3 2018)

Q.2) What are the major reasons for declining rice and wheat yield in the cropping system? How crop diversification is helpful in stabilizing the yield of the crop in the system? (UPSC GS3 2017)

Q.3) Explain the changes in cropping patterns in India in the context of changes in consumption pattern and marketing conditions. (UPSC GS3 2023)

MCQs

Question: "System of Rice Intensification" of cultivation, in which alternate wetting and drying of rice fields is practiced, results in

1. Reduced seed requirement
 2. Reduced methane production
 3. Reduced electricity consumption
- Select the correct answer using the code given below: (UPSC CSE 2023)
- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

Question: Consider the following states : (UPSC CSE 2019)

1. Chattisgarh
2. Madhya Pradesh
3. Maharashtra
4. Odisha



କୃଷି କଲେ ଉନ୍ନତ ସକଳ ଉନ୍ନତି

- The **Krushak Assistance for Livelihood and Income Augmentation scheme** was launched by the Government of Odisha in 2018 to reduce poverty and boost agricultural prosperity.
- It aims to support cultivators, small farmers, and landless agricultural laborers through payments to encourage cultivation and associated activities.

Benefits:

- **Assistance for cultivation:** Farmer families get financial assistance of **₹25,000 over five seasons** to purchase inputs like fertilizers, seeds, and pesticides.
 - It can also be used for labor and other investments.
- **Livelihood assistance:** Livelihood assistance of **₹12,500** is provided to all landless agricultural households for allied agricultural activities like poultry and cattle rearing, beekeeping, mushroom farming, etc.
- **Assistance for vulnerable agricultural households:** Vulnerable cultivators or landless agricultural laborers are provided financial assistance of **₹10,000 per annum per family**.
- **Insurance:** Cultivators and landless agricultural laborers between 18 to 50 years are provided a **life insurance cover of ₹2 lakhs**
 - **Personal accident cover of ₹2 lakhs** is also provided.
- **Interest-free loan:** **Crop loans up to ₹50,000** are provided to vulnerable landless laborers, sharecroppers, cultivators, and agricultural families identified by Gram Panchayats **at 0% interest**.

To learn more, click the [link](#).

Resilience and sustainability

- Odisha has developed a comprehensive **Climate Change Action Plan** to address its vulnerability to climate change.
- **Odisha is particularly vulnerable to climate change on account of its geographical location and physical conditions.**
- Concerns associated with climate change:
 - Disruption of presently used strategies
 - Exacerbate poverty
 - Loss of life and livelihoods
 - Destruction of assets and infrastructure
- The Climate Change Action Plan was developed by an expert team from multiple departments with input from civil society.
- The activities identified in the plan are implemented by various departments and agencies and monitored by a committee headed by the Chief Secretary.
- It covers various sectors such as agriculture, coastal zone protection, energy, fisheries and animal resources, forests, health, industries, mining, transport, and urban and water resources.
- **Approach towards climate resilience:** It has adopted a **bottom-up approach towards climate resilience**.
 - This approach assists the authorities in adopting necessary measures in adverse weather conditions like cyclones, floods, and droughts, which are frequent in the State.
 - The Crop Weather Watch Group conducts weekly meetings, oversees field visits by officers, and organizes video conferences to monitor the crop program.
 - **Crop planning is done at the district level by officials of allied departments based on the agro-climatic zone.**
- Climate resilient practices adopted by farmers:
 - Integrated farming
 - Zero-input-based natural farming
 - Adoption of non-paddy crops,

With reference to the states mentioned above, in terms of the percentage of forest cover to the total area of the State, which one of the following is the correct ascending order?

- (a) 2-3-1-4
- (b) 2-3-4-1
- (c) 3-2-4-1
- (d) 3-2-1-4

Answer: (c)

- Improved water management and adoption of water-saving devices,
- E-pest surveillance
- Large-scale farm mechanization including the adoption of farm implements that are women-friendly.
- In addition to these climate-resilient techniques, farmers have been provided training in crop-specific techniques to boost food grain production such as integrated nutrient and pest management.

Social protection

- According to estimates, the **frequency of occurrence of disasters could increase to 1.5 per day in 2024, i.e 560 disasters per year.**
- **Unchecked climate change could drive hunger and malnutrition by 20% while food productivity is predicted to fall by 21% due to global warming,**
- The Government of Odisha has partnered with the **UN World Food Programme** to develop innovative pilot schemes for improving food and nutrition security.
- For example, the application of biometric technology in the Targeted Public Distribution System in the Rayagada district in 2007 and rice fortification in the Gajapati district.
- The WFP and the government of Odisha collaborate on numerous food security, livelihood, and climate resilience initiatives.
- **Odisha was ranked the top-performing state in the country on the State Ranking Index for the National Food Security Act in 2022.**

World Food Programme (WFP)



- The **World Food Programme** is a branch of the **United Nations** that works to promote **food security in the world and deal with hunger eradication.**
- It was **established in 1961** by the **Food and Agriculture Organization (FAO)** and the **United Nations General Assembly (UNGA)** with its **headquarters in Rome.**
- The WFP operates in more than 120 countries, provides food assistance during emergencies, and cooperates with communities to enhance nutrition and build resilience.
- **Objective:** End hunger, achieve food security and improved nutrition, and promote sustainable agriculture by 2030 in line with SDG2.
- **Funding:** The WFP is funded by voluntary donations from governments, corporations, and private donors.
- The WFP is a member of the **United Nations Development Programme (UNDP)** and was **awarded the Nobel Peace Prize in 2020.**
- It has been functioning in India since 1963.
- **Reports:**
 - Global Report on Food Crisis

Conclusion

- Odisha's transition from foodgrain scarcity to surplus driven by sustained efforts in climate-proofing its agricultural system, crop diversification, protection of smallholders, and food and nutrition security for the vulnerable is a unique and emulatable developmental model amid the complexities presented by climate change.
- The spiraling global food crisis caused by the climate crisis, conflicts, and distress means the Odisha developmental model could be adopted to ensure food security and climate adaptation through equity and sustainability.

GEOGRAPHY

India Set To Man Its Arctic Base Around The Year With New Expedition

SOURCE: INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- Recently, India announced that it would begin year-round observations in Himadri, its base in the Svalbard region of the Arctic.
- India's first winter expedition, comprising four scientists from four different institutions, was sent off to Himadri on December 18th 2023.
- Himadri, which was inaugurated in 2008, is India's first research station at the International Arctic Research base in Norway.



India's Winter Expedition to the Arctic 2023

- The winter expedition will last until January 15th, 2024.
- It comprises four scientists from the Indian Institute of Tropical Meteorology, Pune, IIT-Mandi, Raman Research Institute, Bengaluru, and the National Centre for Polar and Ocean Research, Goa, (nodal agency for India's polar explorations)
- Research areas:** Atmospheric sciences, astronomy, astrophysics, and climate studies.
 - Scientists will study lightning over the Arctic in winter, the role of precipitation in climate change, the characterization of radio frequency environment, and the role of aerosols on climate change.
- Why is India conducting winter expeditions:** Year-round observations in Svalbard will help develop and advance scientific projects in atmospheric and space sciences.
 - The year-round observations from Himadri will help address the knowledge gap and data deficiency on atmospheric and biological data during winter polar nights.

Why has India not had year-round observations in the Arctic previously?

- Permanent facilities have been established by at least 10 countries in the International Arctic Research base in Ny-Ålesund.
- February is the coldest month in Ny-Ålesund with an average temperature of minus 14°C while July is the warmest month with an average temperature of 5°C.
- This extreme cold, even during the summer months, makes year-round observation very difficult.
- As a result, scientific observations and sampling have been confined to the warmer months.

Other challenges to research in the Arctic

- The Arctic suffers from several months of darkness and is inhabited by dangerous wildlife like Polar bears.
- Moreover, the Arctic offers very limited space for independent studies due to geopolitical complications.
- The area north of the Arctic Circle (66° 34' N) belongs to eight countries (Arctic Council) — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the USA - and the Arctic Ocean.

Arctic Council

- The Arctic Council was established in 1996 through the Ottawa Declaration as an intergovernmental forum to promote cooperation amongst Arctic countries.
- Its earliest origin can be found in the Arctic Environmental Protection Strategy (AEPS) established in 1991.
- Aim:** Promote cooperation and coordination among the Arctic States, indigenous communities, and other Arctic inhabitants on the common Arctic and discuss and resolve issues on sustainable development and environmental protection in the region.

Structure:

- Secretariat:** The Arctic Council Secretariat in Tromsø, Norway provides administrative and general support to the activities of the Arctic Council.

News summary:

India launched its inaugural winter expedition to Himadri, its Arctic research base, aiming for year-round observations. Arctic research which is challenging due to harsh conditions and geopolitical complexities aids in understanding climate change's global impact.

UPSC Mains Practice Questions

Q.1) How do the melting of the Arctic ice and glaciers of the Antarctic differently affect the weather patterns and human activities on the Earth? Explain. (GS1 2021)

MCQs

Question: On 21st June the sun (UPSC 2019)

- (a) Does not set below the horizon at the Arctic circle
- (b) Does not set below the horizon at Antarctic circle
- (c) Shines vertically overhead at noon on the Equator
- (d) Shines vertically overhead at the tropic of Capricorn

Answer: (a)

Question: Which one of the following statements best describes the 'Polar Code'? (UPSC 2022)

- (a) It is the international code of safety for ships operating in polar waters.
- (b) It is the agreement of the countries around the North Pole regarding the demarcation of their territories in the polar region.
- (c) It is a set of norms to be followed by the countries whose scientists undertake research studies in the North Pole and South Pole.
- (d) It is a trade and security agreement of the member countries of the Arctic Council.

Answer: (a)

Question: Consider the following countries:

1. Denmark
2. Japan
3. Russian Federation
4. United Kingdom
5. United States of America

Which of the above are the members of the 'Arctic Council'? (UPSC 2014)

- (a) 1, 2 and 3
- (b) 2, 3 and 4
- (c) 1, 4 and 5
- (d) 1, 3 and 5

Answer: (d)

- The Council consists of members, observer countries, and permanent participants.
- **Members:**
 - Canada
 - Denmark
 - Finland
 - Iceland
 - Norway
 - Russia
 - Sweden
 - United States
- **Permanent participants:**
 - Aleut International Association (AIA),
 - Arctic Athabaskan Council (AAC)
 - Gwich'in Council International (GCI)
 - Inuit Circumpolar Council (ICC)
 - Russian Association of Indigenous Peoples of the North (RAIPN)
 - Saami Council
- **Observers:** Non-Arctic states, inter-governmental, inter-parliamentary, and non-governmental organizations that contribute to the work of the Council.
 - They are approved by the Council at the Ministerial Meetings.
 - Observers have no voting rights in the Council.
 - As of 2022, thirteen non-Arctic states have Observer status including India (2013).
- **Working:**
 - Decisions of the Arctic Council are taken by consensus among the eight Arctic Council States with full consultation and involvement of the Permanent Participants.
 - The Chairmanship of the Arctic Council rotates every two years among the Arctic States.

How are winter research expeditions different from summer research expeditions?

- Winter expeditions require special Antarctic-like winter clothing and local transportation facilities, like skidoos.
- According to estimates, the additional expenses towards wintering at the Himadri station are estimated to be about ₹1 crore.
- Since the winter season sees very few hours of twilight and mostly darkness, research is restricted to observational platforms established on the Himadri station or the Gruvebadet Observatory.

Why is Arctic research important?

- The Arctic is a natural laboratory for understanding life and life adaptations in extreme conditions.
- This means that it is suitable for establishing experiments and observational studies to understand global warming and its potential connection with tropical climates.
- The polar regions i.e. Arctic and Antarctica provide pristine environments for scientists to study a range of natural phenomena.
- This is critical for continued research in sectors such as atmospheric, oceanic, biological, geological, glaciological, and earth sciences.
- Climate change has also contributed to increased attention to the Arctic region by scientists and researchers.
- Over the last 100 years, temperatures in the Arctic have risen by about 4°C on average.
- 2023 was the warmest year on record.
- The Intergovernmental Panel on Climate Change reported that the Arctic sea-ice has been declining by 13% over the last decade.
- If this continues, the Arctic could become ice-free in less than 20 years.

Effects of melting sea ice

- Rising sea levels can influence atmospheric circulation.
- Increased tropical sea surface temperatures could lead to
 - increased precipitation in the tropics
 - shift in the Inter Tropical Convergence Zone
- Increased occurrence of extreme rainfall events including those in India. For example, the National Centre for Polar and Ocean Research (NCPOR) has identified increased intensification of Arabian Sea cyclones to be associated with a warmer Arctic.
- The global warming-induced ice melt has resulted in milder weather conditions in the Arctic, making it more habitable.
- This has driven countries to explore and exploit the resources of the Arctic including its minerals.
- As a result, countries will attempt to control trade, navigation, and other strategic sectors in the region leading to the Arctic becoming a new arena of geopolitical competition.

India in the Arctic

- Scientific research in the Arctic region is governed by international legal instruments like the Svalbard Treaty of 1920 and the UN Convention on the Law of the Seas, as well as the individual jurisdictions of the Arctic countries.
- India signed the Svalbard Treaty in Paris in 1920.
- India conducted its first expedition to the International Arctic Research Facilities at Ny-Ålesund to initiate studies in Arctic microbiology, atmospheric sciences, and geology in 2007.
- India's permanent research station, Himadri, began operations in July 2008.
- Around 200 visits have been made to Himadri which is currently manned for about 180 days a year.
- Himadri has been equipped to conduct observations during polar nights along with special winter gear, transport, and logistics support from Norwegian agencies.

Himadri



- Himadri Research Station is India's research station in the Arctic which was inaugurated on 1st July 2008.
- It is located around 1,200 km from the North Pole at Spitsbergen, Svalbard, Norway.
- India was the 11th country after Britain, Germany, France, Italy, China, Japan, South Korea, The Netherlands, Sweden, and Norway to set up a permanent research station in Ny-Ålesund.
- The National Centre for Polar and Ocean Research (NCPOR), Goa is the nodal agency for activities at Himadri.
- **Research areas:**
 - Study hypothesized teleconnections between the Arctic climate and the Indian monsoon by analyzing sediment and ice core records.
 - Estimate the effect of global warming in the northern polar region.
 - Research on the dynamics and mass budget of Arctic glaciers
 - Comprehensive assessment of the flora and fauna of the Arctic and their response to anthropogenic activities

Winter Solstice

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

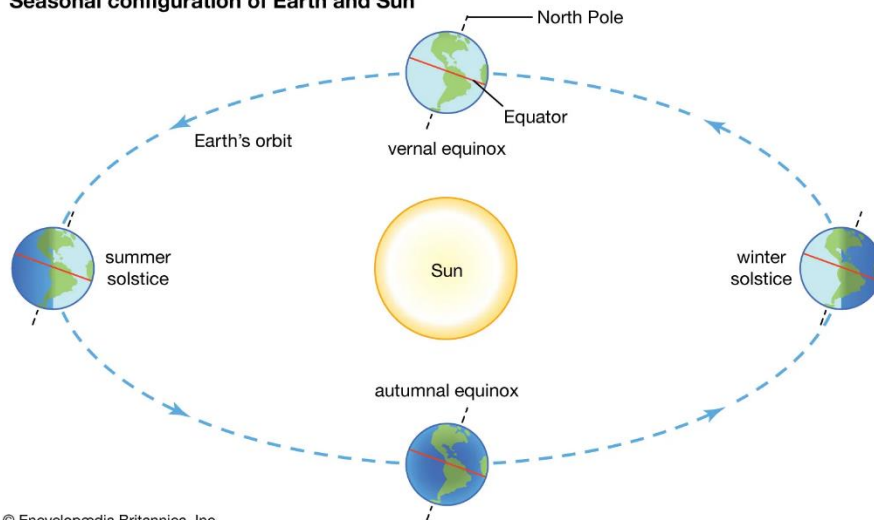
- This article discusses the winter solstice which is the shortest day of the year in the Northern Hemisphere and the longest day, in the Southern Hemisphere.
- The winter solstice of 2023 took place at 8.58 am IST on December 22nd 2023.

News summary:

The winter solstice, marking the shortest day in the Northern Hemisphere, occurred on December 22nd, 2023. This phenomenon, influenced by Earth's tilt, has cultural and astronomical significance worldwide.

UPSC Mains Practice Questions

Seasonal configuration of Earth and Sun



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What is a solstice?

- The word solstice is derived from the Latin words sol (sun) and sistere (to stand still) meaning 'stalled sun'.
- It is a natural phenomenon that occurs biannually - once in the northern hemisphere and once in the southern hemisphere.
- During a solstice event, the planet's poles are extremely inclined toward or away from the star it orbits, in Earth's case the sun.
- **June solstice:** It occurs when the north pole is tilted closest towards the sun.
 - It occurs on the 21st of June every year and is also known as the summer solstice.
- **December solstice:** It occurs when the south pole is tilted closer to the sun.
 - It takes place on the 22nd of December each year and is otherwise known as the Winter Solstice.
- If the sun is observed in the sky every day at the same mean solar time, its locations will appear to trace a figure eight path called an **analemma**.
 - The sun will attain its highest point in this pattern on the summer solstice and its lowest point on the winter solstice.

How do the solstices take place?

- Earth revolves around the sun in an elliptical orbit with an axis tilted by 23.5° to its orbital plane.
- The tilted axis, and Earth's spin and orbit result in places on the Earth receiving different amounts of sunlight throughout the year.
- As a result, the length of days varies.
- When the northern hemisphere is tilted towards the sun, it gets more sunlight and enjoys longer days, the longest of which is the summer solstice.
- On the other hand, when the southern hemisphere is tilted towards the sun, it enjoys longer days, the longest of which is the winter solstice.
- The tilted axis of the earth is also responsible for the occurrence of different seasons on Earth.
- **Axial precession:** Axial precession is the gradual shift in the orientation of Earth's axis of rotation in a cycle of approximately 26,000 years, similar to that of a spinning top.
 - It causes the dates of the earth's solstices to fall later over time.

What are the differences between the summer and winter solstice?

	June Solstice	December Solstice
Length of day	It is the longest day in the Northern Hemisphere.	It is the longest day in the Southern Hemisphere.
Length of night	It is the longest night in the Southern Hemisphere.	It is the longest night in the Northern Hemisphere.
Sun's declination	Sun's rays fall directly over the Tropic of Cancer.	Sun's rays fall directly over the Tropic of Capricorn.
Season	• Summer in the Northern Hemisphere • Winter in the Southern Hemisphere	• Winter in the Northern Hemisphere • Summer in the Southern Hemisphere

How does the solstice affect various regions?

Q.1) Describe the phenomenon of solstice and the differences between the June solstice and December solstice. (150 words)

MCQs

Question: Variations in the length of daytime and nighttime from season to season are due to (UPSC 2013)

- the earth's rotation on its axis
- the earth's revolution around the sun in an elliptical manner
- latitudinal position of the place
- revolution of the earth on a tilted axis

Answer: (d)

Question: On 21st June the sun (UPSC 2019)

- Does not set below the horizon at the Arctic circle
- Does not set below the horizon at Antarctic circle
- Shines vertically overhead at noon on the Equator
- Shines vertically overhead at the tropic of Capricorn

Answer: (a)

- Depending on the latitude, different regions experience different exposures to daylight during the solstice.
- Equatorial regions:** Areas near the equator experience relatively little solstice variation since they receive the maximum intensity of the sun's rays throughout the year.
- Midlatitudes:** During the solstices, the **subsolar point, i.e. the latitude at which the sun is perceived to be directly overhead**, is the Tropic of Cancer (June) and the Tropic of Capricorn (December).
- Polar regions:** The solstices are associated with the highest and lowest points in the sky of the sun in the polar regions.
 - It leads to phenomena like the midnight sun and polar night.
 - Midnight sun:** The sun is still visible at midnight in the weeks preceding and following the summer solstice.
 - Polar night:** The sun remains below the horizon in the weeks prior to and after the winter solstice.

Cultural significance of solstices

- In ancient societies, the solstices were celebrated as festivals - summer solstice as midsummer and winter solstice as midwinter.
- Many cultural festivals celebrated even today take place around the same time as the solstices. For example, Christmas, and Dongzhi (China).
- In the Vedic tradition, the northern movement of the Earth on the celestial sphere was acknowledged in the Surya Siddhanta, which outlines the Uttarayana (the period between Makar Sankranti and Karka Sankranti).
 - The Winter Solstice is considered to be the first day of Uttarayana.
- Newgrange is a prehistoric monument in County Meath, Ireland which is designed in such a way that sunlight penetrates its inner sanctum only on the morning of the winter solstice.

India's Extreme Rainfall 'Corridor'

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- A recent study has identified a **consistent corridor from West Bengal to Gujarat** where **synchronized extreme rainfall events occur**.
- This **unchanged corridor from 1901 to 2019** suggests potential for better understanding and prediction of these events.

Indian Monsoon and its Features

The Indian Monsoon is a significant weather phenomenon affecting the Indian subcontinent, primarily characterized by **seasonal reversals in wind direction** and corresponding changes in precipitation patterns. It plays a crucial role in the region's climate and has a significant impact on its agriculture, economy, and overall way of life.

Key Features:

- Seasonal Reversal of Winds:** The most defining feature of the Indian Monsoon is the seasonal reversal of wind direction.
- During the summer months, winds blow from the southwest**, bringing moisture from the Indian Ocean onto the land, resulting in heavy rainfall.
- In winter**, the winds reverse and **blow from the northeast**, typically bringing drier weather.
- Two Distinct Seasons:** The monsoon has two primary seasons:
- Southwest Monsoon (Summer Monsoon):** Typically starting in June and lasting until September, this phase brings heavy rainfall to most of the subcontinent. It begins with the onset over the Kerala coast in Southern India and progresses northwards.
- Northeast Monsoon (Winter Monsoon):** Occurring from October to December, this phase is marked by drier air and less intense rainfall, mainly affecting the southeastern parts of India.
- Onset and Withdrawal Phases:** The onset of the monsoon is a gradual process, starting in the south and moving northward. The withdrawal is the reverse, beginning in the north and retreating southward. These phases are critical for **agricultural planning and water management**.
- Active and Break Periods:** During the monsoon season, there are 'active' phases, with heavy rainfall, and 'break' periods, where rainfall is minimal or absent. These variations can significantly impact the agricultural sector.
- Monsoon Depressions:** These are **low-pressure systems** that develop over the Bay of Bengal and the Arabian Sea, contributing significantly to the monsoon rainfall. They are critical in bringing substantial rain over vast areas.
- Regional Variability:** The impact of the monsoon varies across different regions of India. Some areas receive very heavy rainfall (like the Western Ghats and the northeastern states), while others like the Thar Desert in Rajasthan receive very little.

News summary:

A study highlighting a consistent extreme rainfall corridor from West Bengal to Gujarat over a century offers insights into forecasting, risk reduction, and leveraging India's modeling capacity for monsoon management.

UPSC Previous Year Practice Question

- Q.** Why is the South-West Monsoon called 'Purvaia' (easterly) in Bhojpur Region? How has this directional seasonal wind system influenced the cultural ethos of the region? (2023)
- Q.** What characteristics can be assigned to monsoon climate that succeeds in feeding more than 50 percent of the won population residing in Monsoon Asia? (2017)
- Q.** How far do you agree that the behavior of the Indian monsoon has been changing due to humanizing landscapes? Discuss. (2015)

MCQs

Q. With reference to Ocean Mean Temperature (OMT), which of the following statements is/are correct? (UPSC 2020)

- OMT is measured up to a depth of 26°C isotherm which is 129 meters in the southwestern Indian Ocean during January — March.
- OMT collected during January — March can be used in assessing whether the amount of rainfall in the monsoon

- **Economic and Agricultural Significance:** The monsoon season is crucial for agriculture in India, as a significant portion of the country's farmlands are rainfed. The monsoon's performance can affect the country's GDP due to its impact on agriculture.
- **Influence of Global Weather Phenomena:** The monsoon is influenced by various global climatic phenomena, including **El Niño and La Niña**, which can alter its timing, duration, and intensity.

El Niño

- This is a warming of sea surface temperatures in the central and eastern tropical Pacific Ocean.
- It's part of a larger climatic cycle known as the El Niño-Southern Oscillation (ENSO).
- El Niño events typically lead to significant weather changes like increased rainfall in South America and warmer, drier conditions in Asia and Australia.

La Niña

- Opposite to El Niño, La Niña is characterized by unusually cold ocean temperatures in the Equatorial Pacific.
- It often brings about effects that are the reverse of those caused by El Niño, such as increased rainfall in the western Pacific and drier conditions in the central and eastern Pacific regions.

Impact of Global Warming on Monsoon

- **Increased Intensity and Variability:** Global warming often leads to more intense monsoon rains.
- Warmer air holds more moisture, leading to heavier rainfall during monsoon seasons. This increase in intensity can lead to flooding and other related disasters.
- Additionally, the variability in monsoon patterns increases, making it more difficult to predict rainfalls accurately.
- **Shift in Timing:** There can be a shift in the onset and withdrawal of monsoons. This affects agriculture, as farming in many regions depends on the predictability of monsoon seasons.
- **Prolonged Dry Spells and Shorter Wet Spells:** In some regions, global warming has led to prolonged dry periods interspersed with shorter, more intense wet spells. This can disrupt agricultural cycles and water availability.
- **Altered Regional Patterns:** Some areas may experience more rainfall while others become drier. This uneven distribution can have widespread implications for agriculture, water resources, and ecosystems.
- **Increased Risk of Extreme Weather Events:** There is a higher likelihood of extreme weather events, such as heavy rainfall, storms, and floods, associated with monsoons.
- **Impact on Agriculture and Water Resources:** Changes in monsoon patterns can significantly impact agriculture, which relies on timely and adequate rainfall.
- Irregular monsoons can lead to crop failures, food shortages, and economic losses.
- Water resources also get affected, impacting drinking water supply and energy production in regions reliant on hydroelectric power.
- **Ecosystem Disruption:** Altered monsoon patterns can disrupt ecosystems, affecting biodiversity, wildlife migration patterns, and the health of aquatic and terrestrial habitats.
- **Social and Economic Impacts:** The changes in monsoon patterns due to global warming can have profound social and economic impacts, particularly in regions heavily dependent on agriculture and where large populations are vulnerable to climate extremes.

Extreme Rainfall Corridor

- Researchers have identified a 'corridor' where synchronized extreme rainfall events frequently occur.
- This corridor extends from parts of **West Bengal and Odisha to Gujarat and Rajasthan**. Remarkably, this corridor has remained consistent from **1901 to 2019**.
- Although global warming has influenced various aspects of the Indian monsoon, including a general downward trend in total seasonal rainfall and changes in the duration and intensity of wet and dry spells, the corridor for extreme rainfall events has remained unchanged.
- The Indian monsoon is partially influenced by **El Niño and La Niña phenomena**. However, forecasting extreme rainfall events remains challenging due to multiple factors and complex dynamics involved.
- Advanced network analysis of rainfall data has revealed that the **most active rainfall nodes align along this corridor**.
- The average distance between these nodes has remained about **200 km over a century**, indicating a stable pattern in the occurrence of extreme rainfall events.

Popcorn and Kettle Analogy

- This analogy is used to describe the behavior of monsoon rainfall systems in Central India.

will be less or more than a certain long-term mean.
Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Q. With reference to 'Indian Ocean Dipole (IOD)' sometimes mentioned in the news while forecasting Indian monsoon, which of the following statements is/are correct? (UPSC 2017)

1. IOD phenomenon is characterized by a difference in sea surface temperature between tropical Western Indian Ocean and tropical Eastern Pacific Ocean.
2. An IOD phenomenon can influence an El Niño's impact on the monsoon.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (b)

Q. The seasonal reversal of winds is the typical characteristic of (UPSC 2014)

- (a) Equatorial climate
- (b) Mediterranean climate
- (c) Monsoon climate
- (d) All of the above climates

Answer: (c)

Q. Consider the following statements: (UPSC 2012)

1. The duration of the monsoon decreases from southern India to northern India.
2. The amount of annual rainfall in the northern plains of India decreases from east to west.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

Q. La Niña is suspected to have caused recent floods in Australia. How is La Niña different from El Niño? (UPSC 2011)

1. La Niña is characterized by unusually cold ocean temperature in equatorial Indian ocean whereas El Niño is characterized by unusually warm ocean temperature in the equatorial Pacific Ocean.

- The analogy compares Central India to a kettle that heats up from the pre-monsoon to the monsoon season.
- In this scenario, the monsoon rainfall systems are likened to kernels of corn popping randomly across the kettle.
- However, it is observed that these 'kernels' pop in a synchronized manner, indicating that large groups of rain events (akin to groups of popcorn) occur simultaneously.
- This analogy is used to illustrate the coordinated nature of extreme rainfall events during the Indian monsoon.

Significance of Monsoon Stability

- **Understanding Extreme Rainfall Patterns:** This stability is crucial for understanding where extreme rainfall events are likely to occur, which is important for planning and preparedness.
- **Improving Forecasting and Modelling:** The stable pattern of the extreme rainfall corridor provides a valuable foundation for improving monsoon forecasts.
- Traditional statistical methods might miss complex relationships in rainfall patterns, but the identification of a consistent corridor allows for more precise modelling and prediction of extreme rainfall events.
- This could lead to more accurate and reliable weather forecasts, which are crucial for a region heavily dependent on monsoon rains.
- **Insights into Monsoon Dynamics:** The stability of the monsoon system, despite various global climatic influences, offers insights into the unique dynamics of the Indian monsoon.
- Understanding these dynamics is essential for predicting not just rainfall patterns but also for studying the impact of global climate change on regional weather systems.
- **Potential for Risk Reduction:** Recognizing the stable corridor for extreme rainfall events can significantly aid in risk reduction strategies.
- This knowledge can be leveraged in various sectors such as agriculture, water management, energy, transportation, and health to mitigate the impacts of heavy rain events.
- It allows for targeted interventions and preparations in regions most likely to be affected.
- **Implications for Climate Change Research:** The findings challenge the notion that stationary elements no longer exist in climate systems due to global warming.
- The persistence of this rainfall corridor despite global climatic changes provides new avenues for research in climate science, particularly in understanding how certain geographical features, like mountain ranges, might influence weather patterns.

Implications for Forecasting

- **Identification of a Stable Rainfall Corridor:** The discovery of a stable corridor for extreme rainfall events since 1901 indicates a consistent pattern.
- This stationary element provides a targeted area for monitoring and predicting extreme weather events.
- The consistency of this corridor, despite global warming and other climatic changes, is significant for forecasting efforts.
- **Improvement in Forecasting Models:** The understanding of this corridor can lead to improved forecasting models.
- Researchers may not necessarily need to increase model resolution or computational costs but can focus on the dynamics of synchronization within this corridor.
- This approach could lead to more accurate and efficient predictions of extreme rainfall events.
- **Challenging Conventional Beliefs:** The findings challenge the belief that stationary elements no longer exist in climate systems due to global warming.
- The Indian monsoon's ability to synchronize heavy rain events in a specific corridor over a long period contradicts this assumption and indicates that some aspects of climate systems may still maintain consistent patterns.
- **Focus on Synchronization Dynamics:** The focus on the dynamics of synchronization, rather than just increasing model resolution, suggests a shift in approach to understanding and forecasting monsoon patterns. This could lead to new methods and technologies in weather prediction.
- **Risk Reduction Potential:** Accurate forecasting of extreme rainfall events in this corridor can significantly reduce risks in various sectors like agriculture, water management, energy, transportation, and health.
- Better forecasts can help in planning and implementing preventive measures against potential impacts.
- **Utilization of India's Modelling Capacity:** India's solid position in terms of modeling capacity and computational resources can be fully leveraged to exploit the potential of these findings.

2. El Nino has adverse effect on southwest monsoon of India, but La Nina has no effect on monsoon climate. Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (d)

- This can enhance India's overall ability to predict and prepare for extreme weather events more effectively.

Conclusion

The findings offer potential for reducing risks associated with large-scale extreme rainfall events in various sectors like agriculture, water, energy, and health. With its modelling capacity and computational resources, India is well-placed to leverage these insights for better monsoon management and forecasting.

Glaciers Shrank 1 M A Year In A Decade: WMO

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- Recently, the “Global Climate 2011-2020: A Decade of Acceleration” report of the World Meteorological Organization (WMO) revealed that 2011-2020 was the warmest decade ever in history.
- The decade witnessed the lowest number of deaths associated with extreme events despite a rise in economic losses.
- On average, glaciers thinned by approximately 1 meter per year during the decade.

Highlights of the Global Climate 2011-2020: A Decade of Acceleration

- **Warmest decade:** The decade from 2011-2020 was identified as the **warmest ever in history**.
- **Fewer deaths:** Improvements in early warning systems based on improved forecasting and disaster management policies have helped reduce the losses from extreme events.
 - The report found that the decade was the **decade with the lowest number of deaths from extreme weather events**.
 - This was the first decade since 1950 when there was not a single short-term event with 10,000 deaths or more.
 - The report highlighted that the lower number of deaths was despite the **rise in economic losses from extreme weather and climate losses**.
 - In India, improvements in the forecasting of cyclone formation and landfall have helped improve preparedness and evacuation policies.
- **Ozone hole recovery:** The decade was the first in which **visible recovery was observed in the depleted ozone hole**.
 - The report highlighted the success of the **Montreal Protocol** in which countries agreed on the phasing out of ozone-depleting gases like refrigerants.
 - The Protocol inspired the UN to convene annual Conference of Parties meetings to address challenges from climate change and greenhouse gas emissions.
- **Glacier melt:** The report stated that **glaciers around the world had thinned by approximately 1 meter a year between 2011 and 2020**.
 - During the 2011-2020 decade, **Greenland and Antarctica lost 38% more ice than during the 2001-2010 period**.
 - Although the report did not specifically refer to the Himalayan glaciers, it did note that the 2021 rock avalanche in Uttarakhand was triggered by a breach in the **Nanda Devi glacier**.
- **Extreme heat events:** According to the report, **anthropogenic climate change has led to a significantly increased risk of extreme heat events**.
 - **Heatwaves were responsible for the highest number of human casualties while tropical cyclones were responsible for the majority of the economic damage**.
- **Climate finance:** In the decade **between 2011 and 2020, public and private climate finance almost doubled**.
 - The report claimed that **climate finance would have to be increased by at least seven times by 2030 to achieve climate objectives such as keeping temperature rise below 1.5°C by the end of the century**.

News summary:

The World Meteorological Organization's report highlighted the warmest decade, reduced deaths from extreme events, glacier melting trends, and success in ozone hole recovery amidst climate challenges.

UPSC Mains Practice Questions

Q.1) The Intergovernmental Panel on Climate Change (IPCC) has predicted a global sea level rise of about one meter by AD 2100. What would be its impact on India and the other countries in the Indian Ocean region? (UPSC GS3 2023)

Q.2) ‘Climate Change’ is a global problem. How will India be affected by climate change? How Himalayan and coastal states of India will be affected by climate change? (UPSC GS3 2017)

MCQs

Question: Which one of the following is associated with the issue of control and phasing out of the use of ozone-depleting substances? (UPSC CSE 2015)

- (a) Bretton Woods Conference
- (b) Montreal Protocol
- (c) Kyoto Protocol
- (d) Nagoya Protocol

Answer: (b)

Question: “Climate Action Tracker” which monitors the emission reduction pledges of different countries is a: (UPSC CSE 2022)

- (a) Database created by coalition of research organisations
- (b) Wing of “International Panel of Climate Change”
- (c) Committee under “United Nations Framework Convention on Climate Change”
- (d) Agency promoted and financed by United Nations Environment Programme and World Bank

Answer: (a)



Extreme weather events

- **Extreme Weather Events** refer to instances when the weather conditions are significantly different from the usual weather.
- They may last for a while or even return to normal conditions within one or two days.
- According to the WMO, extreme weather, climate, and water-related events led to 11,778 reported disasters globally, more than two million deaths, and \$4.3 trillion in economic losses between 1970 and 2021.
- In the same period, 573 disasters occurred in India claiming around 1,38,377 lives.

Types

- **Heatwaves:**
 - A heat wave occurs when the maximum and the minimum temperatures are unusually hot over three days at a location in relation to the local climate and past weather.
 - Heat Waves typically occur between March and June in India.
- **Wildfires:**
 - **Wildfires or forest fires** are any uncontrolled or non-prescribed combustion or burning of plants in natural settings like forests, grasslands, etc.
 - The fire is based on the natural fuels in the region and spreads based on environmental conditions like wind and topography.
- **Droughts:**
 - **Droughts** refer to a prolonged dry period in the natural climate cycle.
 - It is a **slow-onset disaster** that is characterized by a lack of precipitation and can occur anywhere in the world.
 - It results in a water shortage in the affected area.
- **Cold Snaps:**
 - A **cold snap** is a very sudden drop in temperature that can have a multifaceted impact on human lives and the Earth's systems.
 - It differs from cold spells and cold waves,
- **Tropical cyclones:**
 - A **tropical cyclone** is a rapidly rotating storm that originates over tropical oceans.
 - It has a low-pressure center with clouds spiraling towards the eyewall surrounding the "eye".
 - Tropical cyclones have become more frequent over the last four decades and have proved to be more destructive.
- **Floods:**
 - **Floods** are an overflow of water onto normally dry land with the rising water level leading to the inundation of a normally dry area.
 - A flood caused by heavy or excessive rainfall in a short period, generally less than 6 hours is also known as flash floods.
 - Flooding is a longer-term event than flash flooding as it may last days or weeks.

Factors that cause extreme weather events

- **Anthropogenic factors:**
 - Human activity has led to rapid changes in global climate which has contributed to extreme weather conditions.
 - The **burning of fossil fuels** has led to an increase in greenhouse gas emissions and climate change.

- **Climate change:**
 - **Climate change has increased the instability in the atmosphere** and contributed to more frequent thunderstorms, lightning, and heavy rain events.
 - Climate change-induced rise in temperatures also contributes to droughts, flooding, heavy rain, and snowstorms.
- **El Nino and La Nina:**
 - The **El Nino-Southern Oscillation (ENSO)**, has far-reaching effects on weather conditions across the globe.
 - The changes in climate due to El Niño led to an increase in the number of natural disasters for climate-vulnerable countries
 - During La Niña events, trade winds are even stronger than usual, pushing more warm water toward Asia which leads to droughts in the southern U.S. and flooding in the Pacific Northwest and Canada
- **Atmospheric Winds:**
 - The jet stream helps to maintain and control the weather system from west to east in the northern hemisphere and from east to west in the southern hemisphere.
 - However, they can also lead to the **formation of extreme weather events such as tornadoes.**

What is the WMO?



- The **World Meteorological Organization (WMO)** is a specialized agency of the United Nations (UN) with its headquarters in Geneva, Switzerland.
- It acts as the authoritative voice on the state and behavior of the Earth's atmosphere, its interaction with the oceans, the climate it produces, and the resulting distribution of water resources within the UN framework.
- It was established in 1950 as the **specialized agency of the UN for meteorology, operational hydrology, and related geophysical sciences.**
- It originated from the **International Meteorological Organization (IMO)**, which was founded in 1873 following the **1873 Vienna International Meteorological Congress.**
- **Membership:** 191 countries including India are members of the body.

Governance

- **World Meteorological Congress:** It is the **supreme body of the WMO** with representatives from all 191 member countries.
 - The Congress **meets at least once every four years** to set general policies and adopt regulations.
- **Executive Council:** It is a **36-member body that meets annually and implements policy** set out by Congress.
- **Secretariat:** It is the **administrative center of the WMO** and is headed by the **Secretary-General.**
 - The **Secretary-General is appointed by the Congress and serves a four-year term.**

- **Reports:**
- Status of World Climate
- Greenhouse Gas Bulletin

Montreal Protocol

- The **Montreal Protocol** was developed to reduce the production and consumption of **ozone-depleting substances** to protect the earth's ozone layer.
- The treaty opened for signature on September 16, 1987 and entered into force on January 1, 1989.
- Protocol parties meet annually to take decisions for the successful implementation of the Protocol.
- **Amendments:**
- It has been amended seven times - in 1990 (London), 1991 (Nairobi), 1992 (Copenhagen), 1993 (Bangkok), 1995 (Vienna), 1997 (Montreal), and 1999 (Beijing).
- The **Kigali Amendment**, the most recent amendment, called for the phase-out of hydrofluorocarbons (HFCs) in 2016.
- The Montreal Protocol established a set of practical, actionable tasks which were agreed upon by members.

To learn more, click the [link](#).

ENVIRONMENT

Conference of the Parties 28

SOURCE: THE HINDU, INDIAN EXPRESS

PRIORITY: HIGH

What is COP28?

- COP 28, or the 28th Conference of the Parties, is a significant annual event under the **United Nations Framework Convention on Climate Change (UNFCCC)**.
- It serves as a global platform where representatives from various countries, including heads of state, climate experts, and environmental activists, come together to discuss, negotiate, and formulate strategies to combat climate change.
- It involves participation from countries that are parties to the UNFCCC. Non-state actors, such as NGOs, scientists, and businesses, also participate to provide insights and foster collaborations.
- COP 28, like other COP meetings, is crucial for developing countries or the Global South.
- These countries often seek greater support in terms of finance and technology to address climate change, as they are typically more vulnerable to its impacts despite contributing less to global emissions.
- COP-28 is being held at Expo City, Dubai in the United Arab Emirates (UAE).

Key themes

The presidential statement outlined the following as key themes

- Accelerating mitigation ambition
- Enhancing adaptation action and addressing loss and damage
- Strengthening collaboration on climate finance
- Promoting innovation and technology for climate action
- Fostering inclusive climate action

What were the expectations from COP 28?

- COP28 was seen as one of the last opportunities to ensure that the world could maintain the 1.5°C threshold for global warming.
- It aimed to carry out the first Global Stocktake to comprehensively assess the fight against climate change and the requirements to fulfill the climate objectives.
- Experts have confirmed that 2023 was the hottest year ever, with more than 80 days 1.5°C warmer than pre-industrial times.
- COP28 was expected to indicate to the world that enough had not been done to maintain the 1.5°C target and stimulate more ambitious climate action by the end of the decade.

Important outcomes from COP 28

Loss and Damages Fund

- Member countries agreed to operationalize the Loss & Damages Fund, which aims to compensate countries already struggling with climate change's effects.
- The L&D fund is a global financial package to aid the rescue and rehabilitation of countries severely affected by climate change.
- It primarily targets compensation to poorer countries from wealthy, industrialized nations that have historically contributed to global warming through industrial growth.
- Countries have committed around \$250 million to the fund which will be managed by an independent secretariat.
- The World Bank will serve as the interim host of the Fund for four years.

News summary:

COP28, in Dubai, highlighted global efforts for climate action including financing, mitigation, adaptation, etc.

UPSC Mains Practice Questions

- Q.1)** Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? (UPSC GS3 2021)
- Q.2)** Discuss global warming and mention its effects on the global climate. Explain the control measures to bring down the level of greenhouse gases that cause global warming, in the light of the Kyoto Protocol, 1997. (UPSC GS3 2022)
- Q.3)** Explain the purpose of the Green Grid Initiative launched at the World Leaders Summit of the COP 26 UN Climate Change Conference in Glasgow in November 2021. When was this idea first floated in the International Solar Alliance (ISA)? (UPSC GS3 2021)
- Q.4)** The adoption of electric vehicles is rapidly growing worldwide. How do electric vehicles contribute to reducing carbon emissions and what are the key benefits they offer compared to traditional combustion engine vehicles? (UPSC GS3 2023)

MCQs

- Q. "Climate Action Tracker" which monitors the emission reduction pledges of different countries is a: (UPSC 2022)**
- (a) Database created by coalition of research organisations
- (b) Wing of "International Panel of Climate Change"

- All developing countries are eligible to apply for assistance from the Fund.
- Contributions to the Fund are voluntary.
- A specific percentage of the Fund has been allocated to Least Developed Countries and Small Island Developing States.

ALTERRA

- ALTERRA is a private fund that aims to mobilize US\$250 billion globally by 2030, aspiring to be the largest fund dedicated to climate investments.
- The UAE as host of COP 28 committed \$30 billion to establish the fund.
- It aims to transform emerging markets and developing economies through climate investments as they require around \$2.4 trillion annually by 2030 to address climate change.
- ALTERRA will focus on four main areas:
 - Energy Transition
 - Industrial Decarbonisation
 - Sustainable Living
 - Climate Technologies.

Global stocktake

- The Global Stocktake was conducted to review the implementation of the Paris Agreement and assess the progress made towards achieving its goals such as the effectiveness of actions taken by countries to reduce greenhouse gas emissions.
- Under the Paris Agreement, the GST is mandated as a periodic exercise with the first one in 2023 and then at five-year intervals.
- The draft Global Stocktake highlighted the need to phase out all fossil fuels and set out ambitious targets such as
 - Tripling renewable energy capacity by 2030
 - Doubling the rate of energy efficiency improvement.
- India as a representative of the BASIC bloc (Brazil, South Africa, China, India) advocated for the Global Stocktake to consider the failures of developed nations.
- The BASIC grouping expressed concerns about the fragmented multilateralism adopted by developed nations and recommended greater accountability.

New Collective Quantified Goal (NCQG)

- According to the United Nations Conference on Trade and Development (UNCTAD), wealthy nations owed developing countries \$500 billion in 2025 under the New Collective Quantified Goal (NCQG) for climate finance.
- The NCQG was confirmed by developed countries under the Paris Agreement in 2015.
- It aims to set a new collective quantified goal before 2025 starting from a floor of \$100 billion per year including \$250 billion for mitigation, \$100 billion for adaptation, and \$150 billion for loss and damage.
- This has led to distress in developing countries, impairing them from implementing efficient plans for sustainable development.

Global Goal on Adaptation

- The draft text on the Global Goal on Adaptation (GGA) was introduced at the COP.
- The GGA was introduced under the Paris Agreement to enhance climate change adaptation by increasing awareness of and funding for countries' adaptation needs regarding the 1.5/2°C.
- It addresses critical issues such as
 - Climate-induced water scarcity reduction
 - Climate-resilient agriculture and food production
 - Building resilience against climate-related health impacts

CHAMP initiative

- 65 national governments signed the Coalition for High Ambition Multilevel Partnership (CHAMP) for Climate Action.
- These countries committed to enhancing cooperation with subnational governments in planning, financing, implementing, and monitoring climate strategies.
- It aims to maximize climate action, collectively pursue efforts to limit the temperature rise to 1.5°C above pre-industrial levels, and increase adaptation and resilience.

Methane reduction

- Fifty oil and gas companies pledged to achieve zero methane emissions by 2030.
- A plan to achieve these targets would be submitted by 2025.
- They also committed to ensuring net zero greenhouse gas emissions from their operations by 2050.
- A fund was announced for methane abatement projects in emerging markets and developing economies.

Powering Past Coal Alliance (PPCA)

- (c) Committee under "United Nations Framework Convention on Climate Change"
- (d) Agency promoted and financed by United Nations Environment Programme and World Bank

Answer: (a)

Q. The 'Common Carbon Metric', supported by UNEP, has been developed for: (UPSC 2021)

- (a) assessing the carbon footprint of building operations around the world
- (b) enabling commercial farming entities around the world to enter carbon emission trading
- (c) enabling governments to assess the overall carbon footprint caused by their countries
- (d) assessing the overall carbon footprint caused by the use of fossil fuels by the world in a unit time

Answer: (a)

Q. "Momentum for Change: Climate Neutral Now" is an initiative launched by: (UPSC 2018)

- (a) The Intergovernmental Panel on Climate Change
- (b) The UNEP Secretariat
- (c) The UNFCCC Secretariat
- (d) The World Meteorological Organisation

Answer: (c)

- The PPCA is a coalition of national and sub-national governments, businesses, and organizations that work to advance the transition from unrestricted power generation from coal to clean energy.
- New national and subnational governments joined the PPCA at COP28 and called for cleaner energy alternatives.

Coal Transition Accelerator

- The Coal Transition Accelerator was introduced by France in association with various countries and organizations.
- **Aim:** Facilitate just and effective transitions from coal to clean energy through knowledge-sharing, policy design, and financial support.

Transition away from fossil fuels

- For the first time, around 200 countries agreed to transition away from the use of fossil fuels in energy systems.
- The Dubai consensus called on countries to ensure a just, orderly, and equitable transition to achieve net zero by 2050.

Global Renewables and Energy Efficiency Pledge

- 118 countries agreed targets to triple renewable power generation capacity to 11,000 GW, and double energy efficiency by 2030.
- This could help avoid around 7 billion tonnes of carbon dioxide equivalent emissions of GHGs.
- However, India did not sign the pledge in line with its policy not to be “pressured” into cutting coal despite a similar agreement being agreed at the India-chaired G20 Summit in New Delhi earlier in 2023.

Nuclear energy

- More than 20 countries including the USA, France, the UK, Japan, Canada, South Korea, and Ukraine pledged to cooperate on the goal of tripling nuclear energy capacity from 2020 to 2050.
- At present, nuclear energy provides about 10% of the world’s total electricity, according to the International Atomic Energy Agency (IAEA).

Health

- The inaugural ‘Health Day’ at COP-28 signifies a shift in focus to how public health can adapt to climate change.
- The Declaration on Climate and Health, which highlights the link between climate change and health was endorsed by 123 governments.
- The countries acknowledged shared objectives such as
 - Adoption of a One Health approach
 - Enhancing climate-health information services, surveillance, early warning and response systems
 - Creating a climate-ready health workforce
 - Partnering with indigenous and local communities, women and girls, children and youth, healthcare workers, persons with disabilities, and other vulnerable populations
 - Accelerating achievement of the Sustainable Development Goals
 - Addressing waste and emissions from the health sector

Tropical diseases

- Countries and global donors have pledged over US\$777 million to help defeat neglected tropical diseases and improve the lives of 1.6 billion people.

Sustainable Agriculture, Resilient Food Systems and Climate Action

- The leaders-level COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action was made at a special session of the World Climate Action Summit (WCAS).
- It was led by the leaders of Indonesia, Italy, Samoa, and the USA to address global emissions while protecting the lives and livelihoods of farmers.
- 134 countries – representing over 5.7 billion people and 76% of total emissions from the global food system have signed up to the Declaration.
- It aims to build a global food system fit for the future while embedding sustainable agriculture and food systems as critical components in dealing with climate change and building future-proof food systems.
- The UAE announced that it would join the CGIAR, a global partnership that unites international organizations engaged in research about food security, resilience, and climate adaptation.

Action Agenda on Regenerative Landscapes

- COP28 launched the Action Agenda on Regenerative Landscapes along with the World Business Council on Sustainable Development (WBCSD) and the Boston Consulting Group (BCG), supported by the UN Climate Change High-Level Champions.

- Food and agriculture organizations will cooperate to scale regenerative agriculture accompanied by \$2.2 billion in future investment.
- This will assist in transitioning 160 million hectares to regenerative agriculture by 2030.

Gender-Responsive Just Transitions & Climate Action Partnership

- Gender-Responsive Just Transitions & Climate Action Partnership was endorsed by 68 Parties.
- 1.2 billion jobs, representing 40 percent of the global labor force, are at risk due to global warming and environmental degradation.
- It consists of a package of commitments on finance, data, and equal opportunities.
- Three core pillars of the partnership:
 - Better quality data to support decision-making in transition planning
 - More effective finance flows to regions most impacted by climate change
 - Education, skills, and capacity building to support individual engagement in transitions.

Decarbonization

- The Arab Energy Fund announced plans to invest up to \$1 billion over the next five years in decarbonization technologies.
- This was part of a five-year strategy to 2028 to support the regional energy transition towards net-zero goals.

Steel Standards Principles

- The COP launched the Steel Standards Principles which aim to align greenhouse gas emissions in the steel sector with climate targets.
- The Principles were developed by standard-setting bodies, international organizations, steel producers, and industry associations and call for establishing common methodologies to accelerate the transition to near-zero emissions in the sector.
- It recognizes that the sector accounts for approximately 8% of annual global greenhouse gas emissions which must be reduced by at least 90% for the sector to play a credible role in achieving climate targets.

Green Climate Fund

- Countries committed to a \$12.5 billion replenishment of the Green Climate Fund, which was the largest ever in history.

Climate Resilient Debt

- The UK announced the first ever climate-resilient debt clauses in Africa, with Senegal. 73 countries joined together to issue a call to action on the adoption of these clauses.

Global Cooling Pledge

- 52 Countries committed to reduce their cooling emissions by at least 68% by 2050
- These kinds of emissions now account for 7% of global greenhouse gas emissions and are expected to triple by 2050.
- It aims to increase access to sustainable cooling by 2030 and increase the global average efficiency of new air conditioners by 50%.

Other philanthropic commitments

- At the 'Business & Philanthropy Climate Forum', the Green Climate Fund, Allied Climate Partners, and Allianz Global Investors pledged \$5 billion to advance climate and nature action.
- Philanthropic bodies including the Sequoia Climate Foundation and the Bezos Earth Fund committed \$450 million to solutions addressing methane emissions.
- The UAE and the Bill & Melinda Gates Foundation launched a \$ 200 million partnership for Food Systems, Agriculture Innovation and Climate Action, focused on agricultural research, scaling agricultural innovations, and funding technical assistance for implementing the Declaration.

India-led outcomes

India as Host in 2028

- India proposed to host the 2028 climate change conference, COP33, in India.
- India previously hosted COP8 in 2002.

Global River Cities Alliance

- The Global River Cities Alliance (GRCA), led by the National Mission for Clean Ganga (NMCG) and the National Institute of Urban Affairs (NIUA), was launched at COP28.
- **Aim:** Foster global collaboration for river conservation and sustainable water management
- Propagate river-sensitive development in cities.
- The Alliance includes more than 275 river cities across 11 countries and international funding agencies.

Green Credits scheme

- India offered the Green Credits Programme, a market-based incentive system initiated by the Environment Ministry in October to the world.
- **Aims:**

- Encourage and reward a range of environment-positive actions beyond just carbon emission reductions.
- Extend the concept of carbon credits to other environmental efforts such as water conservation or soil improvement.
- Entities can earn credits for taking actions that positively impact the environment.
- These credits could then be traded, allowing companies that may not meet emission standards to buy credits and thereby improve their environmental performance.

What were the positive impacts of the COP28?

- **Global Stocktake:** The first global stocktake exercise was undertaken at COP28, indicating countries' commitment to ensuring sustainable development and countering emissions.
- **Acknowledgement of fossil fuel's role in climate change:** COP-28 formally acknowledged the role played by fossil fuels in global warming and climate change.
- This is expected to speed the transition away from fossil fuels to cleaner energy sources.
- **Phase-down of coal:** COP28 reiterated the 2021 Glasgow call to phase down coal usage.
- **Renewable energy:** The Global Renewables and Energy Efficiency Pledge, could help avoid around 7 billion tonnes of CO2 equivalent of emissions by 2030.
- This would exceed emission reductions from all other climate actions being taken now.
- **Climate finance:** Countries recognized that enhanced climate finance was necessary to combat the effects of climate change.
- **Loss and Damage Fund:** Developing and underdeveloped countries that have suffered climate change-induced loss will gain access to climate justice as a result of the operationalization of the fund.
- **Adaptation:** It highlighted the importance of global adaptation and identified common goals with global significance.

What were the shortcomings of the COP28?

- **Lack of short-term goals:** The Agreement did not do enough to accelerate climate action in the short term.
- Experts have suggested that developed countries should reach net zero between 2035 and 2040, earlier than the global target (2050) as it will help create carbon space for developing countries.
- **Unfulfilled commitments:** The committed amounts have been described as inadequate to rehabilitate people affected by climate change-driven adverse weather events.
- According to estimates, developing nations face annual costs of climate-related damages of about \$400 billion annually.
- Developed countries have reneged on earlier commitments to mobilize \$ 100 billion in climate finance by 2030.
- **Inadequacies in financing:** Although financing requirements are dire in emerging and developing economies, funds have not been distributed evenly.
- For example, Africa - an extremely vulnerable region only attracts 3% of the global clean energy investment.
- Concerns have been raised about the World Bank's role in overseeing the Loss and Damages Fund and the voluntary nature of contributions to the Fund.
- The COP28 failed to establish a financial mechanism to finance the Global Goal on Adaptation.
- **Greenwashing:** Critics have accused the summit and previous summits of enabling greenwashing by countries and businesses.
- Greenwashing is the practice in which firms and governments mark all kinds of activities as climate-friendly, as something that would lead to emissions reduction, or avoidance of emissions.
- This allows them to promote their climate credentials without making the necessary changes.
- **Dilution of fossil fuel pledges:** The COP has not been able to fix schedules and targets for the phase-out of fossil fuel.
- Oil-producing countries preferred the use of the term "phase-down" instead of the stricter "phase-out" used in earlier agreements.
- The proposal that no new coal-fired power plants should be opened without an in-built carbon capture and storage facility was opposed by India, China, and South Africa.
- **Disagreements over emission cuts:** Countries like India have strongly opposed binding commitments on reducing methane emissions whose major source is the agriculture and livestock industry.
- Such changes could lead to food security concerns for developing countries like India.
- As a result, the agreement did not mention any methane emission cut targets for 2030 despite methane being the second most prevalent GHG and accounting for 25% of all emissions.
- **No binding targets for renewable energy:** Although countries have pledged to triple renewable energy by 2030, no binding individual targets have been set out.

- Therefore, there is an absence of clarity on how countries would achieve these goals.

United Nations Framework Convention on Climate Change (UNFCCC)

- The UNFCCC is the foundational treaty that has provided a basis for international climate negotiations.
- It was signed at the United Nations Conference on Environment and Development (Earth Summit) in 1992.
- Its Secretariat is hosted in Bonn, Germany, and has near universal membership with 197 member countries.
- It is the parent treaty of the Paris Agreement, 2015.
- The Conference of Parties (COP) is the supreme body to regularly reviews, devises, agrees on, and implements climate policy.

To learn more about the UNFCCC, click the [link](#).

Conclusion

COP28 marked a pivotal moment in global climate action, with significant decisions such as the establishment of the Loss and Damages Fund, the Climate Investment Fund, and commitments on methane reduction and renewable energy. The conference witnessed extended international collaboration and a heightened focus on health, agriculture, and transitions for a more sustainable future.

Food Versus Fuel: What's Happening With Centre's Ethanol Blending Scheme

SOURCE: INDIAN EXPRESS

PRIORITY: HIGH

Why in the news?

- Recently, the Union Ministry of Consumer Affairs, Food and Public Distribution directed all mills and distilleries to stop using sugarcane juice to produce ethanol with immediate effect.
- The 2022-23 sugar year ended with stocks of just over 57 lakh tonnes, the lowest since 2016-17 (39.4 lt).



What were the recent directives of the Union government to sugar mills?

- Ban on the use of sugar for ethanol production:** On December 7, the Union Ministry of Consumer Affairs, Food and Public Distribution **directed all mills and distilleries not to use sugarcane juice or syrup to make any ethanol with immediate effect.**
- Export restrictions:** Earlier in October, the Union government had **extended the restriction on sugar exports until it issued new orders.**
- These restrictions had been in place since May 2023.
- The combination of the restriction on ethanol production and sugar exports is a further reflection of the **government's prioritization of domestic supply over exports.**

Impact of the move

- The move has adversely impacted the sugar industry, particularly those companies that had built the capacity to produce ethanol directly from sugarcane syrup.
- Oil marketing companies (OMCs) have floated tenders for the supply of 825 crore liters of ethanol for 2023-24, i.e. a 15% blending target.
- In the first cycle of bids, the OMCs received offers for 559 crore liters of which ethanol produced from sugarcane accounted for 135 crore liters.
- The recent directive of the government could **impact the supply of ethanol and impact their capacities.**
- Although the Centre has stated that the supply of ethanol from B-heavy molasses against existing offers received by OMCs will continue it has not announced prices payable to mills in 2023-24.

News summary:

The Union government directed halting sugarcane-based ethanol production to counter sugar shortages, impacting both the sugar industry and the Ethanol Blending Programme's goals.

UPSC Mains Practice Questions

Q.1 Access to affordable, reliable, sustainable and modern energy is the sine qua non to achieve Sustainable Development Goals (SDGs). Comment on the progress made in India in this regard. (UPSC GS3 2018)

Q.2 Do you think India will meet 50 percent of its energy needs from renewable energy by 2030? Justify your answer. How will the shift of subsidies from fossil fuels to renewables help achieve the above objective? Explain. (UPSC GS3 2022)

Q.3 Explain the changes in cropping patterns in India in the context of changes in consumption patterns and marketing conditions. (UPSC GS3 2023)

Q.4 Critically examine the government's t achieve 20% ethanol blending in petrol by (words)

MCQs

Question: Among the following, which one is the least water-efficient crop? (2021)

- (a) Sugarcane
- (b) Sunflower
- (c) Pearl millet
- (d) Red gram

Answer: (a)

Explanation:

Sugarcane is the least water-efficient crop that requires 1800-2200 mm/season water. Sugarcane which is a Kharif crop is the world's largest crop in terms of production. India is regarded as a sugar superpower due to its massive

- The government had shifted the sugar year to November-October making it closer to the sugar year which starts in October.

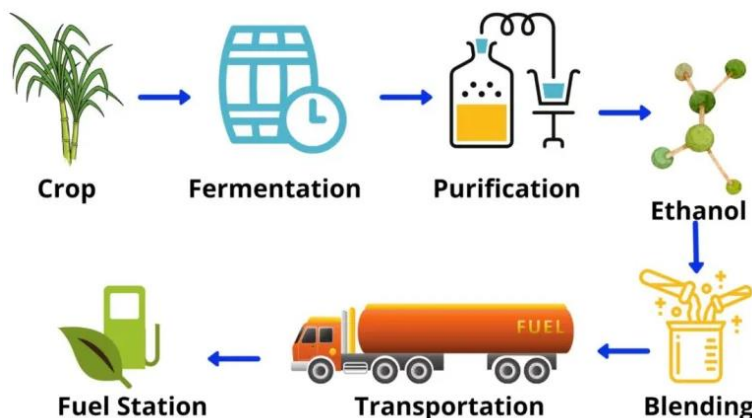
What was the reason for the directions?

- The moves were aimed at **increasing the availability of sugar in the domestic market.**
- **In the 2022-23 sugar year, stocks of just over 57 lakh tonnes (lt) were recorded.**
- **This was the lowest since 2016-17 (39.4 lt) and less than half of the record year of 2018-19 (143.3 lt).**
- According to the National Federation of Cooperative Sugar Factories, **output has been estimated at 291.50 lt in 2023-24.**
- **In comparison, output was 330.9 lt in 2022-23 and 359.25 lt in 2021-22.**
- **Sub-par rain and low levels of water in reservoirs** are the major reasons behind the **drop in production of sugarcane in Maharashtra and Karnataka.**
- As a result of the order, **around 15 lt of sugar, which would otherwise have been used for ethanol production, will be available.**
- The availability of an extra amount of sugar will **boost the physical availability of sugar in the market and counter bullish price fluctuations.**

Table 2: Sugar Balance Sheet
(In lakh tonnes)

	2019-20	2020-21	2021-22	2022-23
1. Opening Stocks	143.33	104.78	83.98	71.23
2. Gross Production	282.85	333.20	393.25	375.00
3. Diversion to Ethanol	9.0	22.00	34.00	45.00
4. Net Production	273.85	311.20	359.25	330.00
5. Availability (1+4)	417.18	415.98	443.23	401.23
6. Consumption	253.0	260.00	262.00	280.00
7. Exports	59.4	72.00	110.00	64.00
8. Ending Stocks (5-6-7)	104.78	83.98	71.23	57.23

Source: National Federation of Cooperative Sugar Factories Ltd.



Ethanol production

- **Ethanol is an agricultural by-product obtained by processing sugarcane as well as sugars from other sources like rice husk or maize.**
- It is considered a **renewable form of energy** since ethanol is produced from plants that harness the power of the sun.
- Ethanol is **99.9% pure alcohol** that can be blended with petrol.
- The **all-India average blending of ethanol with petrol has risen from 1.6% (2013-14) to 11.8% (2022-23).**
- Distilleries in UP like TIEL use multiple feedstocks
- **B-heavy molasses** during the cane crushing season (November-April)
- **Grain (mainly FCI rice, broken rice, and maize)** in the off-season (May-October).

sugarcane and sugar output, cane growers, sugar consumers, more than 500 sugar mills, and one of the largest sugar exporters.

Therefore, option (a) is the correct answer.

Question: Consider the following statements ; [2010]

1. The Union Government fixes the Statutory Minimum Price of sugarcane for each sugar season
2. Sugar and sugarcane are essential commodities under the Essential Commodities Act.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer: (c)

Explanation:

- The Statutory Minimum Price for sugarcane was replaced by the Fair and Remunerative Price which is fixed by the government of India on the recommendation of the Commission on Agricultural Costs and Prices (CACP). **Hence statement 1 is correct.**
- The Essential Commodities Act was introduced in 1955 to ensure the delivery of certain commodities or products, the supply of which, if obstructed due to hoarding or black marketing, would affect the normal life of the people.
- The list of items under the Act includes drugs, fertilizers, pulses, edible oils, sugarcane and sugar, petroleum and petroleum products. **Hence statement 2 is correct.**

Therefore, option (c) is the correct answer.

Question: Consider the following statements:[2003]

1. Molasses is a by-product of sugar production process.
2. Bagasse obtained in the sugar mills is used as a fuel in the boilers to generate steam for the sugar factories.
3. Sugar can only be produced from sugarcane as the raw material.

Which of these statements are correct?

- (a) 1 and 2
(b) 2 and 3
(c) 1 and 3
(d) 1, 2 and 3

Answer: (a)

Explanation:

- Molasses is a by-product of the sugar production process. It is a thick, dark syrup-like substance that remains after sugar has been extracted from sugarcane or sugar

Table 1: Ethanol supplied to Oil Marketing Companies
(In crore litres)

Supply Year	C-Heavy Molasses	B-Heavy Molasses	Sugarcane Juice	Surplus Rice	Damaged Grains	Maize	TOTAL
2013-14	38	0	0	0	0	0	38 (1.60)
2014-15	67	0	0	0	0	0	67 (2.33)
2015-16	111	0	0	0	0	0	111 (3.51)
2016-17	67	0	0	0	0	0	67 (2.07)
2017-18	151	0	0	0	0	0	151 (4.22)
2018-19	146	33	1	0	10	0	189 (4.92)
2019-20	74	68	15	0	16	0	173 (5.00)
2020-21	39	183	39	2	39	0	302 (8.10)
2021-22	11	265	85	49	24	0	434 (10.02)
2022-23	5	224	126	72	21	18	467 (11.80)
2023-24*	2	130	135	45	159	89	559

Supply years are Dec-Nov, Dec-Oct for 2022-23 and Nov-Oct for 2023-24;

*As per offers received in cycle 1 (Nov 2023) of bids invited by OMCs;

Figures in brackets are average ethanol blending with petrol in per cent.

Source: Industry estimates.

From sugar

- Ethanol – or even 94% pure industrial-grade rectified spirit and 96% extra neutral alcohol for potable liquor – is normally produced from C-heavy molasses.
- Cane is typically crushed with 13.5-14% total fermentable sugars (TFS) by mills with around 11.5% of it recovered from the juice as sugar.**

The uncrystallized and non-recoverable 2-2.5% of TFS is in the form of C-heavy molasses. Each tonne of this liquid (40-45% sugar) produces **220-225 liters of ethanol** through fermentation and distillation.

- However, **mills recover just 9.5-10% sugar and divert the remaining 1.5-2% to the B-heavy stage molasses.**

This molasses has 50%-plus sugar and yields **290-320 liters of ethanol per tonne.**

- Another option for mills is to **ferment the entire 13.5-14% TFS into ethanol instead of producing sugar.**
- This option allows them to **obtain 80-81 liters of ethanol from one tonne of cane versus 20-21 liters through the B-heavy and 10-11 liters through the C-heavy routes.**

From grains

- India's ethanol production rose sharply after 2017-18 due to the production of ethanol from B-heavy molasses and concentrated sugarcane syrup.
- Ethanol production was boosted by the use of new substrates such as surplus rice from the FCI's stocks, broken foodgrains, and maize.
- Grains contain starch which can be converted into sucrose and simpler sugars (glucose and fructose) before fermentation by yeast.**
- Although the **process to obtain ethanol from foodgrains is longer, the yields are higher at 380-340 liters per tonne.**
- Differential pricing:** Ethanol production was further boosted by the **higher price offered for ethanol production from feedstocks** other than C-heavy molasses.
- For 2022-23, the ex-distillery price of ethanol payable by state-owned OMCs was fixed at ₹49.41 per liter (from C-heavy molasses) and ₹60.73 (B-heavy molasses), ₹ 65.61 (sugarcane juice), ₹58.50 (surplus FCI rice), ₹55.54 (broken or damaged grain) and ₹56.35 (maize).
- In August, the Union government raised the procurement price of ethanol produced from damaged grain and maize to ₹64 and ₹66.07 per liter.
- Up to 2017-18, OMCs paid a uniform price for ethanol regardless of the feedstock from which it was produced.

Ethanol Blending Programme

- The **Ethanol Blending Programme** was launched by the **Ministry of Petroleum and Natural Gas in 2003** to promote the use of renewable fuels in the country.
- The programme has been extended to the whole of India (except UTs of Andaman Nicobar and Lakshadweep islands) since 2019.
- It was initially started with a target of 5% blending, then 10% ethanol blending by 2022.**
- The **goal was to achieve 20% blending (E20) by 2030 which was shifted to 2025-26 in the Ethanol Roadmap released by the Niti Aayog.**
- Benefits of the EBP programme:**
 - Reduction in the country's import bill.
 - Reduction in environmental pollution.
 - Increased farm income.
 - In comparison to other fuels, biofuels involve the lowest incremental investments

beets. It is used as a sweetener.

Hence statement 1 is correct.

- Bagasse is the fibrous residue left after extracting juice from sugarcane in sugar mills. It is commonly used as a fuel in the boilers to generate steam which powers various processes within the sugar factories. **Hence statement 2 is correct.**
- Sugar can also be produced from sugar beets, which are processed to extract sugar similar to sugarcane, which is the major source of sugar. **Hence statement 3 is incorrect.**

Therefore, option (a) is the correct answer.

Challenges faced by the EBP programme

- Reconfiguration of engines would be necessary to process ethanol-blended petrol.
- Although ethanol burns without emitting CO₂, there is no reduction in the emission of nitrous oxide.
- Concerns have been raised about inefficient land usage and unsustainable use of water to cultivate ethanol-producing crops
- Increased production of ethanol from food grains like rice and maize could lead to food security concerns.
- According to industry experts, the **success of the EBP program was due to the government's differential pricing policy.**
- As a result, the EBP programme was not dependent on a single crop or feedstock.
- Previously, 100% of ethanol was obtained from sugarcane-based feedstocks.**
- This fell to 76% in 2022-23 and is projected to drop to below 50% in the coming year** accompanied by an equivalent rise in ethanol production from grains.

To know more, click the [link](#).

Conclusion

- The recent directives by the Union government to halt sugarcane-based ethanol production aim to address the sugar shortage in the domestic market. This is however likely to impact the sugar industry and the Ethanol Blending Programme's targets.

Loss and Damage Fund Cleared on Day One of COP-28 Summit

PRIMARY SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- A **Loss and Damage (L&D) Fund**, aimed at compensating countries affected by climate change, was agreed upon to be made operational on the first day of the **28th Conference of Parties (COP-28)**, highlighting its significance for countries affected by climate change.

Background of L&D Fund

- The fund was first officially announced at the conclusion of the 27th Conference of Parties (COP-27) held in Sharm El Sheikh, Egypt.
- Following its announcement, it took several meetings and the formation of transitional committees to reach a consensus on the operational framework of the fund.

Year	Event
Early 1990s	Developing countries begin to call for financial assistance to address the irreversible impacts of climate change.
2007	The UN Framework Convention on Climate Change (UNFCCC) establishes the Nairobi work programme on loss and damage.
2013 (COP19)	Parties formally agree to establish an L&D fund at the 19th Conference of the Parties (COP19) to the UNFCCC in Warsaw, Poland.
2021 (COP26)	The Glasgow Dialogue on finance for loss and damage was established to continue discussions over the next three years on the fund.
2022 (COP27)	Representatives of the UNFCCC's member states agreed to set up the L&D fund and a Transitional Committee (TC) to figure out how the new funding mechanisms under the fund would operate.
2023	Four meetings of the TC have concluded with no clear recommendations on operationalizing the L&D fund.
2023 (October)	An impromptu fifth meeting of the TC (TC5) in Abu Dhabi concluded and a set of recommendations have been drafted and forwarded to COP 28.
2023 (November-December)	COP 28 is scheduled to take place in Dubai, United Arab Emirates, where the recommendations from TC5 will be considered and potentially adopted.

What is Loss and Damage Fund?

- Loss and damage fund (L&D) is a proposed fund to provide financial assistance to developing countries that have been affected by the impacts of climate change.
- The Intergovernmental Panel on Climate Change (IPCC) has stated that some of the impacts of climate change are irreversible and will require **adaptation and loss and damage measures** to address.
- The IPCC has also emphasized that developed countries have a moral and financial responsibility to support developing countries in addressing climate change impacts, including through the L&D fund.
- The L&D fund is a crucial element of international climate policy because it recognizes the need to address the irreversible and devastating impacts of climate change on vulnerable communities and developing countries.
- The fund also has the potential to strengthen global cooperation on climate change by addressing the concerns of developing countries.

News summary:

The operationalization of the Loss and Damage (L&D) Fund at COP-28 aims to compensate climate-affected nations, though concerns linger about funding sustainability and access to funds.

UPSC Previous Year Practice Question

Q. Discuss global warming and mention its effects on the global climate. Explain the control measures to bring down the level of greenhouse gases which cause global warming, in the light of the Kyoto Protocol, 1997. **(2022)**

Q. Explain the purpose of the Green Grid Initiative launched at world leaders Summit of the COP 26 UN Climate Change Conference in Glasgow in November, 2021. When was this idea first floated in the International Solar Alliance (ISA)? **(2021)**

Q. Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? **(2021)**

MCQs

Q. "Climate Action Tracker" which monitors the emission reduction pledges of different countries is a: **(UPSC 2022)**

- Database created by coalition of research organisations
- Wing of "International Panel of Climate Change"
- Committee under "United Nations Framework Convention on Climate Change"
- Agency promoted and financed by United Nations Environment Programme and World Bank

Key Outcomes

Operationalization of the Loss and Damage (L&D) Fund

- Member countries at the 28th Conference of Parties (COP-28) have agreed to make the L&D Fund operational. This fund is designed to compensate countries already grappling with the effects of climate change.

Funding Commitments

- The Fund has received financial commitments totaling nearly \$250 million from various countries. However, it is noted that billions of dollars are still needed to fully meet its intended purpose.

Fund Management and Host

- The **World Bank** will serve as the interim host of the Fund for a period of four years. The Fund is to be managed by an independent secretariat.

Financial Contributions by Countries

- The United Arab Emirates (host country) and Germany have each committed \$100 million.
- The United States has pledged \$17 million
- The United Kingdom - \$50.6 million
- Japan - \$10 million
- The European Union has committed an additional \$145 million, beyond Germany's individual contribution.

Eligibility and Contribution Guidelines

- All developing countries are eligible to apply for assistance from the Fund.
- Contributions to the Fund are voluntary, and a specific percentage is allocated for Least Developed Countries and Small Island Developing States.

Significance of the Fund's Establishment

- The decision to establish the Fund is highlighted as historic, following nearly three decades of demand.
- The absence of a defined replenishment cycle for the Fund is raised as a concern for its long-term sustainability.

Positive Start and Momentum

- The agreement to initiate the Fund on the first day of COP-28 is viewed as a positive start, setting a good momentum for future discussions.
- There is a focus on building on this momentum to take concrete steps towards keeping global temperatures below 1.5 degrees Celsius.
- Representatives, including heads of states from nearly 160 countries, are confirmed to attend the World Climate Action Summit, indicating broad global engagement.

Significance of L&D Fund to Developing Countries

- Compensation for Climate Change Impacts:** The primary aim of the L&D Fund is to compensate countries, particularly those in the developing world, which are already grappling with the adverse effects of climate change.
- Support for Vulnerable Economies:** Developing countries are usually more vulnerable to the effects of climate change, such as extreme weather events, rising sea levels, and changing agricultural patterns. The Fund provides financial support to help these economies cope with such challenges.
- Economic Recovery and Stability:** Many developing countries have experienced significant economic losses due to climate-related disasters. The Fund aims to mitigate these losses, helping to stabilize and potentially recover the economies of affected nations.
- Facilitation of Sustainable Development:** By providing financial resources, the L&D Fund can aid developing countries in investing in sustainable development initiatives, enabling them to adapt to and mitigate the effects of climate change.
- Enhancing Global Solidarity:** It acknowledges the disproportionate impact of climate change on developing countries and the responsibility of developed nations in addressing it.
- Encouraging Climate Action:** By compensating for losses and damages, the Fund may also incentivize developing countries to participate more actively in global climate change mitigation and adaptation efforts.
- Addressing Equity and Justice:** The Fund is a step towards addressing the equity and justice aspects of climate change, recognizing that those who are least responsible for climate change are often the most affected.

Concerns Regarding Loss and Damage Fund

- Insufficient Funding:** The Fund has received commitments worth nearly \$250 million, but this amount is far less than what is needed to effectively meet its purpose.
- Lack of a Defined Replenishment Cycle:** One of the major concerns is the absence of a defined cycle for replenishing the Fund. This raises questions about its long-term sustainability and effectiveness in addressing the impacts of climate change.

Answer: (a)

Q. The 'Common Carbon Metric', supported by UNEP, has been developed for: (UPSC 2021)

- (a) assessing the carbon footprint of building operations around the world
- (b) enabling commercial farming entities around the world to enter carbon emission trading
- (c) enabling governments to assess the overall carbon footprint caused by their countries
- (d) assessing the overall carbon footprint caused by the use of fossil fuels by the world in a unit time

Answer: (a)

Q. "Momentum for Change: Climate Neutral Now" is an initiative launched by: (UPSC 2018)

- (a) The Intergovernmental Panel on Climate Change
- (b) The UNEP Secretariat
- (c) The UNFCCC Secretariat
- (d) The World Meteorological Organisation

Answer: (c)

Q. Which of the following statements are correct about the deposits of 'methane hydrate'? (UPSC 2019)

1. Global warming might trigger the release of methane gas from these deposits.
2. Large deposits of 'methane hydrate' are found in Arctic Tundra and under the seafloor.
3. Methane in atmosphere oxidizes to carbon dioxide after a decade or two.

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

- **Voluntary Payments:** The structure of the Fund relies on voluntary contributions from countries. This could lead to uncertainty in funding availability, as it depends on the willingness and ability of countries to contribute.
- **Allocation and Access to Funds:** While the Fund is intended to support developing countries, especially the Least Developed Countries and Small Island Developing States, the criteria for allocation and access to these funds are not clearly defined. This could lead to challenges in equitable distribution and utilization of the funds.
- **Operational Challenges:** The Fund will be managed by an independent secretariat and hosted by the World Bank for an interim period of four years. The operational dynamics and effectiveness of this arrangement remain to be seen.
- **Global Climate Change Impact:** The climate change cost about \$1.5 trillion in 2022, with several developing countries losing an average of about 8.3% of their GDP. The current scale of the Fund might be inadequate to address such widespread and significant impacts.
- **Long-Term Effectiveness:** Given the evolving nature of climate change impacts, there are concerns about the Fund's ability to adapt and remain effective over the long term, especially without a defined replenishment cycle and sufficient initial funding.

Conclusion

The operationalization of the L&D Fund represents a historic decision and a critical step towards addressing the financial impacts of climate change on vulnerable countries.

Shocking Revelation by Environment Minister - 16 Rivers in Karnataka Polluted

PRIMARY SOURCE: DOWN TO EARTH

PRIORITY: MEDIUM

Why in the news?

- The article highlights the **severe pollution of 16 major rivers in Karnataka**, including **Arkavati, Lakshmana Tirtha, Tungabhadra, and Bhadra**, primarily **due to the discharge of industrial and residential sewage**. This situation is alarming as it poses a threat to water quality and public health.

What is the issue?

- Severe pollution of 16 rivers in Karnataka primarily due to the unregulated discharge of sewage and industrial waste into these rivers, resulting in high levels of **biochemical oxygen demand (BOD)**.
- This situation poses significant risks to water quality, public health, and the environment.
- **Rivers like Arkavati, Tungabhadra, Bhadra, and Shinsha** have alarmingly high BOD levels, indicating severe contamination. Even rivers with relatively lower BOD levels still face pollution challenges.
- The pollution affects a large number of rivers across Karnataka, indicating a widespread environmental issue.
- The discharge of waste from 30 cities and towns directly into the rivers is identified as a primary source of pollution.

What is Biochemical Oxygen Demand (BOD)?

- Biochemical Oxygen Demand (BOD) is a **critical water quality parameter** that **measures the amount of dissolved oxygen (DO)** that is consumed by microorganisms in a water sample over a specific period.
- BOD is used as an indicator of the level of organic pollution or contamination in water bodies, particularly in rivers, lakes, and wastewater.
- **A high BOD value indicates a large amount of organic pollution** or contamination in the water, which can lead to reduced oxygen levels in the water. Low oxygen levels can harm aquatic life, as many organisms require oxygen for respiration.

Extent of Pollution

- 16 rivers in Karnataka are polluted, with River Arkavati being the most polluted.
- The Biochemical Oxygen Demand (BOD) levels in **Arkavati** have soared to over **30 milligrams per liter (mg/L)**, which is alarmingly high.
- Rivers such as Tungabhadra, Bhadra, and Shinsha also face substantial pollution, with BOD levels ranging from 6-10 mg/L.
- Although the remaining eight rivers have relatively lower BOD levels (3-6 mg/L), they are still concerning.

Central Pollution Control Board (CPCB) Report Findings

- Monitoring of 30 rivers at 107 locations between 2019-2021 showed 41 locations on 17 rivers failing to meet BOD criteria.
- Karnataka shares the high number of polluted river stretches with other states like **Maharashtra, Madhya Pradesh, Bihar, Kerala, and Uttar Pradesh**.
- Most rivers fall under categories 4 and 5 for limited uses, while a few, like **Arkavathi**, are in **Category 1** for potential drinking water sources after disinfection.

Causes of Pollution

News summary:

Severe pollution affects 16 rivers in Karnataka due to sewage and industrial discharge. Government actions include STP installations, emphasizing community participation, and enhancing awareness for environmental conservation.

UPSC Previous Year Practice Question

Q. Coastal sand mining, whether legal or illegal, poses one of the biggest threats to our environment. Analyse the impact of sand mining along the Indian coasts, citing specific examples. (2019)

Q. The Namami Gange and National mission for clean Ganga (NMCG) programmes and causes of mixed results from the previous schemes. What quantum leaps can help preserve the river Ganga better than incremental inputs? (2015)

Q. Enumerate the National Water Policy of India. Taking river Ganges as an example, discuss the strategies which may be adopted for river water pollution control and management. What are the legal provisions for management and handling of hazardous wastes in India? (2013)

MCQs

Q. Which one of the following has been constituted under the Environment (Protection) Act, 1986? (UPSC 2022)

- Central Water Commission
- Central Ground Water Board
- Central Ground Water Authority
- National Water Development Agency

Answer: (c)

Q. Consider the following statements: (UPSC 2020)

- **Sewage from Cities and Towns:** The primary cause of pollution in these rivers is the discharge of waste from 30 cities and towns directly into the rivers. This waste includes both industrial and residential sewage, contributing significantly to the high levels of pollution.
- **High Biochemical Oxygen Demand (BOD):** Rivers Arkavati, Tungabhadra, Bhadra, and Shinsha, are grappling with high BOD concentrations.
- BOD is a measure of the amount of oxygen that bacteria will consume while decomposing organic matter under aerobic conditions.
- High BOD levels indicate a high level of organic pollution, which can lead to oxygen depletion in the water, adversely affecting aquatic life.
- **Lack of Proper Sewage Treatment Facilities:** The pollution is exacerbated by the lack of adequate sewage treatment facilities.
- **Non-Compliance and Negligence by Local Authorities:** The state pollution control board has registered criminal cases against several municipal councils and municipalities for failing to take necessary action for water purification, highlighting issues with compliance and enforcement of environmental regulations.
- **Overall Environmental Mismanagement:** The need for sustained community involvement and stricter enforcement of environmental laws suggests that the pollution is also a result of systemic issues in how natural resources are managed and conserved.

Government's Response

- The government has initiated the establishment of **24 Sewage Treatment Plants (STPs)**.
- These STPs are strategically placed to purify the contaminated water and tackle the pollution at its source, preventing further degradation of the rivers.
- The **state pollution control board** has taken a stern stance to hold local authorities accountable.
- **Criminal cases have been registered against 10 municipal councils and municipalities** for their failure to take the necessary action to ensure water purification.
- The government's approach also emphasizes the need for a **comprehensive and collaborative effort** to combat river pollution in Karnataka.
- This includes sustained public awareness, community involvement, and stricter enforcement of environmental laws to address the root causes of pollution.
- The responsibility also lies with the citizens to actively participate in conservation efforts and promote sustainable practices to safeguard the state's invaluable water resources.
- The **Karnataka State Pollution Control Board (KSPCB)** is actively working to assess the ground situation by collecting samples from various locations.
- This effort is not limited to the identified 17 rivers but extends to surrounding water bodies as well, reflecting a comprehensive approach to understanding the extent of the problem.
- The urgency of the situation has prompted the KSPCB to emphasize the imperative for municipalities and panchayats to actively engage in the establishment of robust underground drainage systems and STPs.

What is a Sewage Treatment Plant (STP)?

- A sewage treatment plant (STP), also known as a wastewater treatment plant, is a facility designed to treat and purify wastewater or sewage from various sources, including domestic, industrial, and commercial sources.
- The primary goal of an STP is to remove contaminants, pollutants, and impurities from the wastewater to produce treated effluent that can be safely discharged into the environment or reused for various purposes.
- Once the wastewater has undergone these treatment processes, the resulting treated effluent is of a higher quality and can be safely discharged into receiving waters (such as rivers or oceans) or reused for non-potable purposes like irrigation or industrial processes.
- The sludge generated during the treatment process can also be beneficially used as a soil conditioner or disposed of in an environmentally responsible manner.

Government Initiatives to Combat Water Pollution

- **National River Conservation Programme (NRCP):** The NRCP aims to safeguard rivers from pollution and improve water quality.
- **National Green Tribunal:** States and Union Territories are working to implement Action Plans directed by the National Green Tribunal to restore water quality in identified polluted river segments.
- **Jal Jeevan Mission:** The Indian government, in partnership with states, has been executing the Jal Jeevan Mission (JJM) since August 2019.
- JJM's goal is to provide potable tap water to every rural household in India by 2024, even in areas with poor water quality.

1. 36% of India's districts are classified as "overexploited" or "critical" by the Central Ground Water Authority (CGWA).

2. CGWA was formed under the Environment (Protection) Act.

3. India has the largest area under groundwater irrigation in the world. Which of the statements given above is/are correct?

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

Answer: (b)

Q. Why is there a great concern about the 'microbeads' that are released into the environment? (UPSC 2019)

- (a) They are considered harmful to marine ecosystems.
- (b) They are considered to cause skin cancer in children.
- (c) They are small enough to be absorbed by crop plants in irrigated fields.
- (d) They are often found to be used as food adulterants.

Answer: (a)

Q. Which of the following is/are the possible consequence/s of heavy sand mining in riverbeds? (UPSC 2018)

- 1. Decreased salinity in the river
- 2. Pollution of groundwater
- 3. Lowering of the water-table

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (b)

Q. What are the benefits of implementing the 'Integrated Watershed Development Programme'? (UPSC 2014)

- 1. Prevention of soil runoff
- 2. Linking the country's perennial rivers with seasonal rivers
- 3. Rainwater harvesting and recharge of groundwater table
- 4. Regeneration of natural vegetation

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 2, 3 and 4 only
- (c) 1, 3 and 4 only
- (d) 1, 2, 3 and 4

Answer: (c)

Q. Which of the following can be found as pollutants in the drinking water in some parts of India? (UPSC 2013)

- 1. Arsenic
- 2. Sorbitol

- Special attention has been given to ensuring clean tap water supply in schools, Anganwadi centers, and ashram shalas, resulting in 8.52 lakh (83%) schools and 8.76 lakh (78.4%) Anganwadi centers across the country having access to tap water.
- **National Lake Conservation Programme (NLCP):** The Ministry of Environment and Forests administers NLCP to manage and conserve polluted and deteriorated lakes in urban and semi-urban regions.
- It aims to preserve aquatic ecosystems, including lakes and wetlands, by implementing long-term conservation plans based on consistent policies and standards.
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT):** AMRUT was established to ensure that every household has access to a reliable water tap and sewer connection, facilitating improved urban living conditions.
- **National Water Policy (2012):** Introduced by the Ministry of Water Resources, this policy aims to address the current water-related challenges and propose a framework for establishing a unified national perspective, including the creation of laws and institutions.
- It emphasizes the critical role of water for human survival and economic development.
- The policy suggests strategies for conserving water resources in an optimal, economical, sustainable, and equitable manner.
- **National Water Mission (2010):** This mission focuses on integrated water resource management, emphasizing water conservation, reduced wastage, and equitable distribution through improved policies.
- **National Mission for Clean Ganga (NMCG):** NMCG envisions a five-tier structure at national, state, and district levels to combat environmental pollution in the Ganga River. Its goal is to ensure a continuous and adequate flow of water to rejuvenate the river.
- **Namami Gange Project:** This initiative integrates comprehensive efforts to clean and protect the Ganga River effectively.

Conclusion

The government and citizens must collaboratively work to address the crisis. There is a need for public awareness, community involvement, and strict enforcement of environmental laws.

3. Fluoride

4. Formaldehyde

5. Uranium

Select the correct answer using the codes given below.

(a) 1 and 3 only

(b) 2, 4 and 5 only

(c) 1, 3 and 5 only

(d) 1, 2, 3, 4 and 5

Answer: (c)

Q. If National Water Mission is properly and completely implemented, how will it impact the country? (UPSC 2012)

1. Part of the water needs of urban areas will be met through recycling of waste-water.

2. The water requirements of coastal cities with inadequate alternative sources of water will be met by adopting appropriate technologies that allow for the use of ocean water.

3. All the rivers of Himalayan origin will be linked to the rivers of peninsular India.

4. The expenses incurred by farmers for digging bore-wells and for installing motors and pump-sets to draw ground-water will be completely reimbursed by the Government.

Select the correct answer using the codes given below:

(a) 1 only

(b) 1 and 2 only

(c) 3 and 4 only

(d) 1, 2, 3 and 4

Answer: (b)

Dynamic Ground Water Resource Assessment Report 2023

PRIMARY SOURCE: PIB

PRIORITY: MEDIUM

Why in the news?

- The Union Minister of Jal Shakti has released the Dynamic Ground Water Resource Assessment Report for India for 2023.
- The report, a collaborative effort between the Central Ground Water Board (CGWB) and various States/UTs, serves as a tool for stakeholders to implement appropriate interventions.

About Dynamic Ground Water Resource Assessment Report for India for 2023

- The Dynamic Ground Water Resource Assessment Report 2023 is a comprehensive document that presents the current status and trends of groundwater resources across India.
- The periodic assessment of groundwater resources is jointly conducted by **State Groundwater Departments (SGWD) and the Central Groundwater Board (CGWB)**.
- This collaborative effort has taken place in the years 1980, 1995, 2004, 2009, 2011, 2013, 2017, 2020, and 2022.
- Starting from 2022, this assessment is now performed annually.
- The evaluation includes calculating the Annual Extractable Ground Water Resource, the Total Current Annual Ground Water Extraction, and using the **Stage of Ground Water Extraction method**.
- This method computes the stage of groundwater extraction in a specific area by comparing the annual groundwater extraction against the annual extractable resource.
- Based on these calculations, areas (such as Talukas, blocks, or mandals) are classified into categories like safe, semi-critical, critical, or overexploited. These classifications are further confirmed by examining long-term trends in water levels.

News summary:

The Dynamic Ground Water Resource Assessment Report 2023 for India reveals improving recharge but challenges like over-extraction. Urgent holistic strategies are needed for sustainable groundwater management across regions.

UPSC Previous Year Practice Question

Q. How and to what extent would micro-irrigation help in solving India's water crisis? (2021)

Q. What are the salient features of the Jal Shakti Abhiyan launched by the Government of India for water conservation and water security? (2020)

Q. "The ideal solution of depleting ground water resources in India is water harvesting system." How can it be made effective in urban areas? (2018)

Q. In what way micro-watershed development projects help in water conservation in drought-prone and semi-arid regions of India? (2016)

- It highlights the areas where groundwater conditions have improved and identifies the regions that still face challenges in terms of over-exploitation and declining groundwater levels.
- The report is crucial for planning and implementing strategies for sustainable groundwater management.

Key Findings of the Report

- Groundwater Recharge:** The nationwide total annual groundwater recharge has reached 449.08 billion cubic meters (BCM), which is an 11.48 BCM increase from the previous year (2022).
- This rise is primarily due to enhanced recharge from canal leakage, the return flow from irrigated fields, and increased recharge from water bodies, tanks, and water conservation structures.
- Groundwater Extraction:** This has slightly risen from 239.16 bcm to 241.34 bcm. However, the overall rate of groundwater extraction has slightly dropped from 60.08% to 59.26%.
- Critical Level:** About 3.04% of the assessed areas have a groundwater extraction rate of 90-100%, classifying them as critical.
- Semi-Critical Level:** Approximately 10.65% of areas are semi-critical, with groundwater extraction rates between 70% and 90%.
- Safe Level:** Around 73.14% of areas are considered safe, with a groundwater extraction rate below 70%.
- Saline Units:** About 1.94% of the assessed areas are classified as saline, mainly because most of their groundwater in aquifers is brackish or saline.
- Groundwater Condition:** The report shows an improvement in groundwater conditions compared to the 2022 data. Of 6553 assessed units, **4793** are classified as 'Safe'.
- Rainfall and Groundwater Replenishment:** Rainfall contributes to almost 60% of the total annual groundwater recharge.
- Over 75% of the annual rainfall occurs during the four rainy months from June to September, resulting in significant temporal variations.
- Enhancements in Assessment Units:** The recognition of positive changes in 226 assessment units indicates that some regions have experienced improvements in groundwater conditions, possibly due to effective interventions or natural recovery.
- Reduction in Over-exploited Units:** The decrease in the count of over-exploited units marks an advancement in the management and possible relief of the pressure on groundwater resources in certain areas.
- Regional Disparities:** The prevalence of over-exploited units is notable in the northwestern states (such as Punjab, Haryana), primarily because of excessive extraction exceeding the rate of recharge.
- Similarly, arid areas like Rajasthan and Gujarat are also confronting over-exploitation issues, mainly due to their low groundwater recharge rates.

Table-1.1: Ground water Resources assessment 2004 to 2023

S. No.	Ground Water Resources Assessment	2004	2009	2011	2013	2017	2020	2022	2023
1	Annual Ground Water Recharge (bcm)	433	431	433	447	432	436	438	449
2	Annual Extractable Ground Water Resource (bcm)	399	396	398	411	393	398	398	407
3	Annual Ground Water Extraction for Irrigation, Domestic & Industrial uses (bcm)	231	243	245	253	249	245	239	241
4	Stage of Ground Water Extraction (%)	58 %	61 %	62 %	62 %	63 %	62 %	60%	59%

Table-1.2: Categorization of assessment units from 2004 to 2023

S. No.	Categorization of Assessment Units	2004		2009		2011		2013		2017		2020		2022		2023	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	Total Assessed units	5723		5842		6607		6584		6881		6965		7089		6553	
2	Safe	4078	71.3	4277	73.2	4503	68.2	4519	68.6	4310	62.6	4427	63.6	4780	67.4	4793	73.1
3	Semi-critical	550	9.6	523	9	697	10.5	681	10.3	972	14.1	1057	15.2	885	12.5	698	10.7
4	Critical	226	3.9	169	2.9	217	3.3	253	3.8	313	4.5	270	3.9	260	3.7	199	3
5	Over-Exploited	839	14.7	802	13.7	1071	16.2	1034	15.7	1186	17.2	1114	16	1006	14.2	736	11.2
6	Saline	30	0.5	71	1.2	92	1.4	96	1.5	100	1.5	97	1.4	158	2.2	127	1.9

Challenges with Groundwater Management in India

- Groundwater Overuse:** Excessive use of groundwater for agriculture, industry, and household purposes has caused a drop in water tables in many areas, leading to aquifer depletion.
- Of the 6553 assessment units evaluated, 736 units (11.23%) are classified as over-exploited, where groundwater extraction surpasses the annual replenishable recharge.
- This is evident in the northwestern regions of India, including parts of Punjab, Haryana, Delhi, and Western Uttar Pradesh, where despite plentiful replenishable resources, rampant groundwater withdrawal has led to over-exploitation.
- Shortage of Skilled Personnel:** The report highlights a deficit of specialized staff at the district level for processing data from various State Departments.

MCQs

Q. Which one of the following has been constituted under the Environment (Protection) Act, 1986? (UPSC 2022)

- Central Water Commission
- Central Ground Water Board
- Central Ground Water Authority
- National Water Development Agency

Answer: (c)

Q. Consider the following statements: (UPSC 2020)

- 36% of India's districts are classified as "overexploited" or "critical" by the Central Ground Water Authority (CGWA).
 - CGWA was formed under the Environment (Protection) Act.
 - India has the largest area under groundwater irrigation in the world.
- Which of the statements given above is/are correct?

- 1 only
- 2 and 3 only
- 2 only
- 1 and 3 only

Answer: (b)

Q. What are the benefits of implementing the 'Integrated Watershed Development Programme'? (UPSC 2014)

- Prevention of soil runoff
 - Linking the country's perennial rivers with seasonal rivers
 - Rainwater harvesting and recharge of groundwater table
 - Regeneration of natural vegetation
- Select the correct answer using the code given below:

- 1 and 2 only
- 2, 3 and 4 only
- 1, 3 and 4 only
- 1, 2, 3 and 4

Answer: (c)

Q. With reference to micro-irrigation, which of the following statements is/are correct? (UPSC 2011)

- Fertilizer/nutrient loss can be reduced.
 - It is the only means of irrigation in dry land farming.
 - In some areas of farming, receding of ground water table can be checked.
- Select the correct answer using the codes given below:

- 1 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (c)

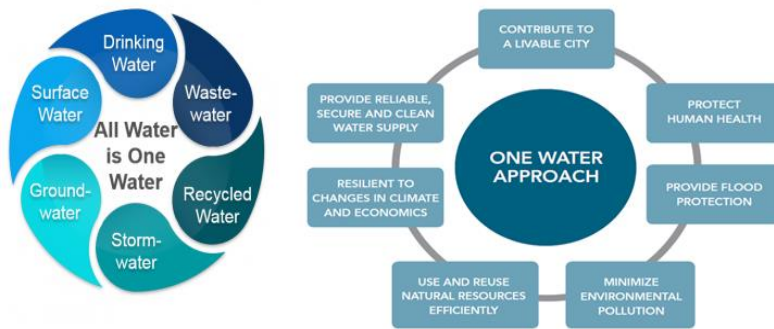
- For instance, there is a need for skilled personnel to gather and regularly update data on recharge from water conservation structures at the district or block level, enabling a more accurate assessment of groundwater resources.
- **Groundwater Contamination:** In numerous areas, groundwater is polluted with industrial waste, agricultural runoff, and untreated sewage.
- This deterioration in water quality compromises human health and agricultural productivity, adding to the complexities of water management.
- A Lancet study notes that pollution in India caused over 2.3 million premature deaths in 2019, with over half a million linked to water pollution.
- **Impact of Climate Change:** Climate change is altering rainfall patterns, significantly impacting India's hydro-climatic conditions. These shifts indicate increased risks of floods and droughts for Kharif crops, affecting the availability and reliance on groundwater.
- **Dependence on Groundwater for Irrigation:** A large part of India's agriculture depends on groundwater for irrigation. This heavy reliance increases the pressure on groundwater resources, especially in regions where alternative water sources are limited.
- **Urbanization and Industrial Demand:** Rapid urbanization and industrial growth have led to increased demand for groundwater. This demand often competes with agricultural and domestic needs, leading to over-extraction and depletion of aquifers.
- **Technological Hurdles:** Implementing advanced technology for water management, including efficient irrigation methods and groundwater recharge techniques, is challenged by issues of accessibility, affordability, and lack of awareness among users.

Government Initiatives to Improve Groundwater Management

- **Jal Shakti Abhiyan:** It is a campaign for water conservation and water security in the country, focusing on integrated demand and supply management of water at the local level.
- **Atal Bhujal Yojana:** A scheme aimed at sustainable groundwater management with community participation. It focuses on areas with over-exploited and water-stressed aquifers.
- **Jal Kranti Abhiyan:** Initiated by the Ministry of Jal Shakti, this campaign is focused on strengthening water conservation and management across India. It adopts a comprehensive and coordinated strategy that includes the participation of all relevant parties.
- **Watershed Management Initiatives:** Numerous State Governments have been executing watershed development projects, where conserving groundwater is a key component.
- Additionally, water conservation efforts are incorporated into the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).
- **National Aquifer Mapping and Management Programme (NAQUIM):** Undertaken by the Central Ground Water Board (CGWB), this initiative aims to map and manage aquifer systems to understand their characteristics and develop management plans.
- **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY):** This scheme promotes water conservation, distribution, and efficient use to ensure 'more crop per drop'.
- **Rainwater Harvesting:** Encouraging the collection and storage of rainwater for reuse before it reaches the aquifer, to improve groundwater levels.
- **Rooftop Rainwater Harvesting:** Mandated in many areas, this method helps in direct groundwater recharge.
- **Participatory Groundwater Management:** Involves community-based efforts to monitor and manage groundwater, often supported by government initiatives.
- **Legislation and Policy Reforms:** The government has been working on updating and implementing policies and laws to regulate groundwater use, promote sustainable practices, and penalize over-extraction.
- **Promotion of Efficient Irrigation Practices:** Encouraging the use of drip and sprinkler irrigation systems to reduce the wastage of water in agriculture.
- **Capacity Building and Awareness Programs:** These are conducted to educate farmers and stakeholders about sustainable water use, conservation techniques, and the importance of groundwater management.
- **Integration of Traditional Knowledge:** Utilizing traditional methods and local knowledge in water conservation and management.
- **Data Management and Monitoring:** Improving the collection, analysis, and dissemination of groundwater data for better planning and management.

Way Forward

- **Integrated Water Management:** Transitioning from traditional, linear water management methods to a holistic and multi-faceted approach (**One Water approach**) for the comprehensive, resilient, and sustainable handling of water resources.
- **One Water Philosophy:** This concept recognizes the inherent value of all water sources, advocating for their integrated, inclusive, and sustainable management, optimizing benefits across the board.



- **Establishment of the National Water Commission (NWC):** As recommended by the Mihir Shah Committee, the Central Water Commission (CWC) and the Central Groundwater Board (CGWB) should be reorganized into a new, unified NWC.
- This body would oversee the combined management of ground and surface water, along with national water policy, data, and governance.
- **Advancing Water-Efficient Farming:** Promoting the use of precise irrigation methods (like drip and sprinkler systems), encouraging the growth of crops that require less water in deficit areas, and adopting crop diversification practices.
- **Enhanced Data Collection and Management:** Investing in skilled personnel for thorough data collection to evaluate groundwater availability, quality, and consumption.
- **Climate-Adaptive Strategies:** Developing and implementing strategies for groundwater management that are resilient to climatic changes, such as treating alternative water sources, increasing water storage capacities, maintaining river health, and effective watershed management.
- **Technological Advancements:** Encouraging the adoption of cutting-edge technologies for efficient water usage, including sensor-based irrigation systems, soil moisture tracking, and investing in R&D for cost-effective and sustainable water management technologies.

Conclusion

The report underscores the mixed situation regarding India's groundwater conditions, noting both progress and ongoing issues. Although some regions show enhancement, the widespread occurrence of over-exploited areas and excessive extraction rates underline the urgent need for holistic and immediate approaches towards sustainable groundwater management. Adopting measures that focus on conservation, community engagement, and strict regulatory frameworks will be crucial in safeguarding the long-term viability and sustainability of the nation's groundwater resources.

HEALTH

Congo Reports Biggest Mpox Outbreak With First Sexually Transmitted Cases In The World: WHO

SOURCE: DOWN TO EARTH

PRIORITY: MEDIUM

Why in the news?

- Recently, a report by the WHO revealed that 12,569 suspected mpox cases, including 581 deaths, were reported in the Democratic Republic of Congo between January 1st and November 12th 2023.
- This was significant because it was the highest number of annual cases ever reported and included the first sexually transmitted infection of mpox in the world.

What is mpox?

- **Mpox is an infectious disease caused by the monkeypox virus (MPXV) with symptoms similar to smallpox but with less clinical severity.**
- It was first discovered in 1958 following two outbreaks of a pox-like disease in colonies of monkeys kept for research. Hence the name '**monkeypox**'.
- It was first identified in humans in 1970 in the Democratic Republic of Congo (DRC).
- **Symptoms:**
 - Rashes similar to those caused by chickenpox.
 - Severe fever, malaise, and headache
 - It can be distinguished from smallpox in the early stages based on the enlargement of the lymph gland.
- **Transmission:** The infection primarily spreads through **direct contact with blood, bodily fluids, and cutaneous or mucosal lesions of an infected animal.**
- Some experts have highlighted the risk posed by consuming inadequately cooked meat of infected animals.

News summary:

The Democratic Republic of Congo faced its largest mpox outbreak, recording 12,569 cases and 581 deaths, including the first reported sexually transmitted cases, prompting global concern.

UPSC Mains Practice Questions

Q.1) Critically examine the role of WHO in providing global health security during the Covid-19 pandemic. (UPSC GS2 2020)

MCQs

Question: About three-fourths world's cobalt, a metal required for the manufacture of batteries for electric motor vehicles, is produced by: (UPSC CSE 2023)

- Argentina
- Botswana

- Mpox is **endemic in the forested regions of west, central, and east Africa**, including the northern and central regions of the DRC.
- However, an **outbreak was reported in Kerala in 2022** making **India the tenth country in Asia and the first in South Asia to report mpox**.
- **Treatment:** Mpox is generally treated with supportive care but some countries have approved the use of vaccines and therapeutics developed for smallpox in some circumstances.
- For example, the EU has recommended **Imvanex**.
- **In 2023, the WHO declared an end to the global health emergency for mpox.**
- The WHO had declared mpox a public health emergency of international concern in July 2022 as the virus had spread to “non-endemic countries”.

What has the WHO report highlighted?

- **Annual case burden:** 12,569 suspected cases were reported in the DRC between January and November 2023.
- **Deaths:** 581 deaths were reported in the DRC in the same period.
- **Spread:** Infections were observed in previously unaffected areas such as Kinshasa, Lualaba, and South Kivu.
- Cases were reported in 22 out of 26 (85%) provinces in the DRC.
- The number of provinces identified as endemic for mpox increased from 11 to 22 as of November 2023.

How is the 2023 outbreak significant?

Highest number of annual cases of mpox ever recorded.

- The 2023 outbreak was the highest instance of annual cases recorded.
- The previous high was in 2020 when 4,594 suspected cases of mpox were recorded in 17 provinces between January 1 and September 13, 2020.
- In 2020, 171 deaths were reported from the 17 provinces.

First confirmed sexually-transmitted mpox infections

- There are two types of mpox virus (MPXV)
- **Clade I** also known as the **Congo Basin Clade**
- **Clade II** also known as the **West African Clade**.
- There are two sub-clades of Clade II - **Clade IIa and Clade IIb**.
- The WHO stated that only cases of mpox related to Clade I have been detected in the DRC.
- In March 2023, the first globally confirmed case of sexual transmission of Clade I was reported in the DRC.
- A Belgian traveler in Kwango province in DRC and their sexual contacts tested positive for the virus.
- Before this, no cases of sexual transmission of Clade I were registered globally.

First reported cases in Kinshasa, the capital of the DRC.

- In August 2023, mpox cases were confirmed in Kinshasa for the first time.
- Persons exposed in other provinces traveled to Kinshasa which led to local transmission with small clusters.
- The WHO claimed that the incidence and human-to-human transmission of mpox in a large urban area like Kinshasa was a clear example of the changes in the epidemiological nature of mpox in the DRC.
- The WHO and the Ministry of Health have undertaken a joint mission to assess the situation in the country.



WHO

- c. the Democratic Republic of the Congo
- d. Kazakhstan

Answer: (c)

Question: Which one of the following is a part of the Congo Basin? (UPSC 2023)

- a. Cameroon
- b. Nigeria
- c. South Sudan
- d. Uganda

Answer: (a)

- The **World Health Organization (WHO)** is the **United Nations' specialized agency for Health**.
- It was founded in 1948 with its headquarters in Geneva, Switzerland.
- It began functioning on April 7, 1948, which is now celebrated as World Health Day.
- **Membership:** 194 Member States.
- **Objectives:**
 - Lead and coordinate global efforts to expand universal health coverage.
 - Focus on the areas of disease prevention, control, and elimination, and set global standards for public health
 - Establish and maintain effective collaboration with specialized agencies, governmental health administrations, professional groups, and other organizations.
 - Assist governments of members in strengthening health services on request.
 - Promote cooperation among groups contributing to the advancement of health.

Democratic Republic of the Congo (DRC)

- The **Democratic Republic of the Congo (Congo-Kinshasa and formerly known as Zaire)** is a country in Central Africa.
- It is the **second largest country in Africa by land area** and the **11th largest in the world**.
- The **Congo River**, the second-longest river in Africa, passes through the DRC.
- More than half the country is covered by dense tropical rainforests.
- According to a report by the World Resources Institute (WRI), **the DRC, which accounts for over 60% of the Congo rainforest, lost over 500,000 hectares in 2022.**
- **Capital:** Its capital is **Kinshasa** on the Congo River.
- **Borders:** Republic of the Congo, Central African Republic, South Sudan, Uganda, Rwanda, Burundi, Tanzania (across Lake Tanganyika), Zambia, and Angola
- It also has a coastline along the South Atlantic Ocean.
- **Languages:** French is the official language
- Other languages include Kituba, Lingala, Swahili, and Tshiluba.
- **Currency:** Congolese franc
- **Population:**
 - The DRC is one of the most populous countries in Africa with over 85 million people
 - Several ethnic groups such as the Bantu, Luba, Kongo are found in the DRC.
- **Natural Resources:**
 - It is rich in timber, oil and gas, gold and diamonds, cobalt and copper.
- **Major Species:** Species of great apes such as bonobos and eastern lowland gorillas can only be found in Congo.
- **Recent events in the DRC:**
 - In November 2023, the **UN International Organization of Migration (IOM)** reported that there was a **rise in internal displacement (6.9 million)** in the DRC.
 - **Armed groups, backed by Rwanda, Uganda, and Burundi have contributed to heightened conflict and regional instability.**
 - Around 1,400 fatalities and 600 attacks were reported in Kivu in 2023.



Tax 'HFSS' Foods, View It As A Public Health Imperative

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- This article discusses the idea of taxing High Fat Sugar Salt (HFSS) foods to tackle public health risks and encourage healthier dietary habits in the population.
- In India, dietary risks account for 1.2 million deaths every year with the Non-Communicable Diseases (NCDs) burden rising from 38% in 1990 to 65% in 2019.

What are High Fat Sugar Salt Foods (HFSS)?

- The Union Ministry of Women and Child Development has defined HFSS as foods, both packaged and unpackaged, that contain relatively high amounts of fat (unsaturated fat), salt, sugar, calories and low amounts of protein, vitamins, phytochemicals, minerals and dietary fiber.
- Consumption of HFSS has been associated with increased incidences of obesity, hypertension, diabetes, and cardiovascular diseases.
- India, which is the largest producer and consumer of sugar, has become one of the largest consumers of HFSS foods in the world.
- Between 2011 and 2021, the Indian ultra-processed food sector grew at a CAGR of 13%.

Why has taxation of HFSS foods been proposed in India?

- Taxation of HFSS foods has been proposed as a solution to control the rising consumption of these food products in India due to their effect on public health, productivity, and economic growth.
- **Health:** The Non-Communicable Diseases (NCDs) burden in India has risen from 38% in 1990 to 65% in 2019.
- According to the global burden of diseases study, 1.2 million deaths every year in India can be attributed to dietary risks.
- According to a World Bank report of 2019, 70% of all overweight and obese people live in Low- and Middle-Income Countries, with a 55% rise in rural areas across the globe.
- **Negative externalities and internalities:** Externalities can manifest in the form of social costs like increased expenditure on health care.
- One example would be raised taxes to finance public health insurance schemes on account of the rising occurrence of diabetes and obesity.
- Internalities include inadvertent harm caused to consumers following the advice of misleading commercials.

News summary:

The proposal to tax High Fat Sugar Salt (HFSS) foods in India aims to curb health risks associated with these products, aligning taxes with nutritional content for healthier dietary choices.

UPSC Mains Practice Questions

Q.1 Elaborate on the policy taken by the government of India to meet the challenges of the food processing sector. (GS3 2019)

Q.2 Elaborate the scope and significance of the food processing industry in India. (GS3 2022)

Q.3 Discuss the significance and implications of the proposed taxation on High Fat Sugar Salt (HFSS) foods in India. (150 words)

MCQs

Question: Aspartame is an artificial sweetener sold in the market. It consists of amino acids and provides calories like other amino acids. Yet, it is used as a low-calorie sweetening agent in food items. What is the basis of this use? (2011)

(a) Aspartame is as sweet as table sugar, but unlike table sugar, it is not readily oxidized in the human body due to a lack of requisite enzymes.

- **Economic impact:** If left unchecked, the economic impact of overweight and obesity could rise from \$23 billion in 2017 to around \$480 billion by 2060.
- **Rising consumption:** The sales of snacks and soft drinks have tripled to more than \$30 billion.
- **Fiscal incentivization:** The imposition of taxes on HFSS foods can be a fiscal tool to incentivize both the industry and the consumers.
 - The processed foods industry can be incentivized to reformulate their products into healthier alternatives.
 - Consumers can similarly be encouraged to modify their consumption basket by adopting healthier diets.

Initiatives to tax HFSS foods

- Taxation of HFSS foods is less common than taxation of sugar-sweetened beverages (more than 60 countries) but has been increasing over the years.
- Such taxes have demonstrated a reduction in the purchase of unhealthy items in jurisdictions where they have been levied.

Global initiatives

- 16 countries including Denmark, France, Hungary, Mexico, South Africa, the United Kingdom, and the United States, have imposed a dedicated tax on HFSS foods.
- Colombia recently introduced a “junk food law” under which a levy that will be gradually increased has been introduced on ultra-processed foods.
- In 2018, South Africa introduced the Health Promotion Levy which was a sugar-based tax on sugar-sweetened beverages.

Indian initiatives

- Kerala introduced a ‘fat tax’ in 2016 which levied a 14.5% tax on foods such as burgers, pizza, etc.
- However, it was later subsumed within the GST in 2017.

GST rates

- The presently applied GST rates on ultra-processed foods does not align with their nutritional content or consider the varying nutritional impact of these products.
- The tax rates on beverages are not based on their sugar content.
 - A 28% GST is levied on SSBs along with a 12% compensation cess.
 - Aerated beverages are all taxed uniformly.
 - A flat 12% tax is imposed on juices regardless of their sugar and fruit content.
- Salty snacks are taxed at 12% regardless of their salt content.
- As a result, they have shown limited impact in altering consumption baskets in favor of healthier alternatives.

WHO and ICRIER report on ultra-processed foods

- A report published by the World Health Organisation (WHO) and the Indian Council for Research on International Economic Relations (ICRIER) in 2023 highlighted the increase in the sales of ultra-processed foods in India over the past decade.
 - **Sales of chocolate and sugar confectioneries:**
 - It dropped from 10% in 2019 to 1% in 2020 due to the pandemic
 - It then recovered to 9% in 2021.
 - **Sales of salty snacks and beverages:**
 - It reduced from 14% each in 2019 to 9% and 1% in 2021.
 - It estimated that chocolate, sugar confectioneries, salty snacks, and ready-made food will continue to dominate the market by 2032 despite a decline in market share.
 - **Recommendations:**
 - The FSSAI clearly define what High Fat Sugar Salt foods
- Implementation of a nutrient-based tax model.

Way forward

- Differentiation of tax rates based on nutritional quality will help incentivize product reformulations.
- For example, HFSS foods can be placed in the highest tier of the GST with healthier alternatives in the zero or minimal tax brackets.
- This would ensure that healthier food choices are more affordable and accessible.
- Unlike the taxation of other sin goods like tobacco and alcohol, the HFSS taxation must not be seen as a means of generating revenue.
- Such taxes can thus be non-regressive with a larger relative reduction in purchases of taxable beverages being observed in lower socio-economic status households than higher SES households following the imposition of the Health Promotion Levy in South Africa.

(b) When aspartame is used in food processing, the sweet taste remains, but it becomes resistant to oxidation.

(c) Aspartame is as sweet as sugar, but after ingestion into the body, it is converted into metabolites that yield no calories.

(d) Aspartame is several times sweeter than table sugar, hence food items made with small quantities of aspartame yield fewer calories on oxidation.

Answer: (d)

Question: DNA Barcoding can be a tool to:

1. assess the age of a plant or animal.
2. distinguish among species that look alike.
3. identify undesirable animal or plant materials in processed foods.

Which of the statements given above is/are correct? (UPSC 2022)

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

Answer: (d)



Conclusion

- Therefore, India must implement a nutrient-based tax model and align tax rates with the nutritional content of products to address the health and economic implications of High Fat Sugar Salt (HFSS) foods.
- This will encourage healthier dietary choices and mitigate the growing public health challenges associated with HFSS consumption.

Ministry Issues Advisory To States In View Of Detection Of The New JN.1 Variant In India

SOURCE: THE HINDU, INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- Recently, the Union Ministry of Health directed all the states to remain vigilant about the COVID situation following the detection of the first case of the JN.1 variant in Kerala.



What is the JN.1 variant?

- The JN.1 variant is a sub-variant of the BA.2.86 variant (Pirol) which was first detected in the United States in September 2023.
- JN.1 has an additional mutation on the spike protein compared to Pirola.
- While JN.1 has only one additional mutation on the spike protein compared to Pirola.
- It has been identified in Kerala and in a traveler from Singapore to Tamil Nadu, with some additional cases also observed in Goa.
- The identification was done by INSACOG (Indian SARS-CoV-2 Genomics Consortium) in Kerala through routine surveillance.

Why is JN.1 significant?

- Pirola has been a "variant of interest" because of more than 39 mutations on its spike protein as compared to its predecessor.
- These mutations on the spike protein are significant because they attach to the receptors on the human cells, allowing the virus to enter it.
- Some scientists have suggested that Pirola might be able to spread quickly and effectively evade immunity.
- However, this has not happened as according to experts, immunity from previous infections and immunization with vaccines containing ancestral spike protein were likely to protect against newer variants.
- An assessment by the WHO Technical Advisory Group on COVID-19 vaccine composition showed that both Pirola and JN.1 were effectively neutralized by serum from humans who had the infection and vaccination but not with the serum of animals who had just had the vaccine but not the natural infection.

News summary:

The Indian government alerted states after detecting the JN.1 variant, urging vigilance, increased testing, and monitoring of severe respiratory illnesses, emphasizing continuous preparedness and preventive measures against evolving COVID-19 strains.

MCQs

Question: In the context of vaccines manufactured to prevent COVID-19 pandemic, consider the following statements:

1. The Serum Institute of India produced COVID-19 vaccine named Covishield using mRNA platform.
2. Sputnik V vaccine is manufactured using vector-based platform.
3. COVAXIN is an inactivated pathogen-based vaccine.

Which of the statements given above are correct? (UPSC CSE 2022)

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (b)

- According to the WHO, Pirola and its descendants accounted for 17% of the Sars-CoV-2 sequences uploaded to GISAID.
- More than half of these sequences were that of JN.1 by December with most sequences coming from the US, Canada, and Europe.
- Singapore reported a surge in COVID-19 cases, mostly due to JN.1, with increased hospitalizations among older individuals.
- It also indicated a higher hospitalization risk for those who received their last COVID-19 vaccine dose over a year ago.
- Doctors suggested that widespread vaccination and exposure to COVID-19 have led to substantial immunity in Indians.

What has the Union government advised the states?

- **Constant vigil:** The Union Government addressed a letter to the Health Secretaries of all the States and Union Territories urging them to maintain constant vigil over the COVID situation in the country.
- **Monitor and report:** The states were also directed to regularly monitor and report district-wise SARI (Severe Acute Respiratory Illnesses) and ILI (Influenza-like Illnesses) cases.
- **Testing:** States were advised to ensure adequate testing including higher number of RT-PCR tests.
- Positive samples could be sent to the INSACOG laboratory for genome sequencing.

Steps taken by states

- Health officials have recommended strict surveillance in government and private hospitals.
- Patients facing breathing difficulties, chest pain, low blood pressure, and inability to have food have been advised to consult a doctor.
- People with COVID-19 symptoms should take lab tests. People, and opt for RT-PCR tests if they test negative in antigen tests.
- Mock drills have been held at health facilities across states to assess their public health and preparedness measures.

Recommendations

- Protecting oneself against emerging variants of the virus requires the same steps followed against previous variants.
- Encourage mask-wearing in crowded and enclosed areas.
- Avoid poorly-ventilated spaces
- Frequent handwashing
- Social distancing

INSACOG

EVERYDAY
HEALTH



- INSACOG or the Indian SARS-CoV-2 Genomics Consortium was established in December 2020 as a joint initiative of the Union Health Ministry of Health and the Department of Biotechnology (DBT).
- It functions under the Ministry of Science and Technology with the Council for Scientific & Industrial Research (CSIR) and the Indian Council of Medical Research (ICMR).
- **Aim:** Expand the whole-genome sequencing of SARS-CoV-2 to help understand how the virus spreads and evolves.
- **Composition:**
- It consists of a network of 38 labs and also includes private labs operating on a hub-and-spoke model.
- **Functions:**
- It carries out whole genome sequencing of the SARS-CoV-2 virus across the nation, aiding in understanding the spread and evolution of the virus.
- INSACOG also aims to focus on sequencing of clinical samples to understand the disease dynamics and severity.

Conclusion

- The detection of the JN.1 variant in India indicates the ongoing challenges posed by the evolution of the SARS-CoV-2 virus. The states and local authorities must adopt a policy of continuous monitoring, testing, and public health measures so as to mitigate the potential impact of emerging variants.

EDUCATION

EWS Quota in Delhi's Private Schools: Challenges and the Way Forward

SOURCE: INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news

- Around 20% of seats reserved for Economically Weaker Sections (EWS) in private schools of Delhi remain vacant each year, despite efforts to provide access to disadvantaged students.
- A recent Delhi High Court ruling increasing the income cap for EWS eligibility to Rs 5 lakh has raised expectations for more applications.
- However, challenges persist in filling these seats due to factors like income disparities, uneven distribution of applications, and bureaucratic hurdles.

What are the challenges in implementing EWS Quota?

- Distribution of Applications:** Many applications concentrate on a few popular schools, leaving others with vacant seats.
- Budget Constraints:** Low-fee schools value government reimbursements but face difficulties attracting EWS applicants.
- RTE Act Implementation:** Enforcing the 25% reservation mandate is challenging.
- Bureaucratic Hurdles:** Schools create obstacles with document requirements, discouraging applicants.
- Decrease in Available Seats:** The number of EWS seats has reduced over the years.
- Increased Costs:** The rising costs of school fees, uniforms, and books, along with the additional expense of tuition to keep up with peers, can be a deterrent for EWS families, even if their child secures a seat in a private school.
- Income Cap for Eligibility:** Increase the income cap for eligibility from Rs 1 lakh to Rs 5 lakh is expected to lead to more applications. However, experts believe that this alone might not significantly reduce the number of vacant seats.

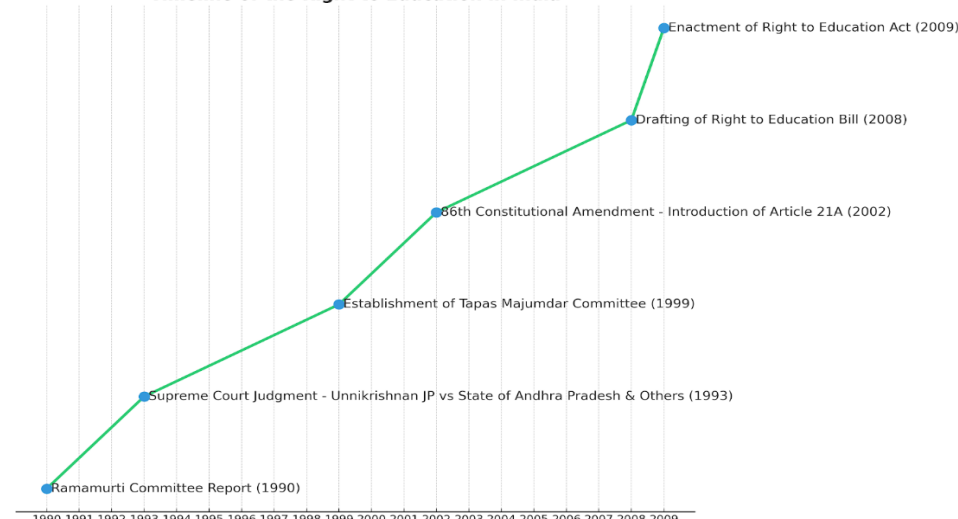
What is Right To Education Act?

- The RTE Act ensures primary education for children aged 6 to 14 and reserves 25% of seats for disadvantaged groups, including SCs, STs, socially backward classes, and differently-abled children. It establishes educational standards, teacher qualifications, and prohibits harmful practices.
- Initially, the act included a **"No Detention Policy,"** which was later removed by The Right of Children to Free and Compulsory Education (Amendment) Act, 2019.

The Act explicitly prohibits several practices:

- Physical punishment and mental harassment
- Screening procedures in the admission of children
- Collection of capitation fees
- Private tutoring by teachers
- Operation of unrecognised schools
- Lastly, it emphasizes the importance of a learning environment that is child-friendly and centered around the child, aiming to create an atmosphere free from fear, trauma, and anxiety.

Timeline of the Right to Education in India



News summary:

Around 20% of Economically Weaker Sections (EWS) quota seats in Delhi private schools remain vacant, despite a higher income cap. Challenges include distribution issues, budget constraints, and bureaucratic hurdles.

UPSC Mains Practice Questions

Q.1) "Development and welfare schemes for the vulnerable, by its nature, are discriminatory in approach." Do you agree? Give reasons for your answer. (UPSC GS2 2023)

Q.3) The Right of Children to Free and Compulsory Education Act, 2009 remains inadequate in promoting incentive-based system for children's education without generating awareness about the importance of schooling. Analyse. (GS2 2022)

Q. National Education Policy 2020 is in conformity with the Sustainable Development Goal-4 (2030). It intends to restructure and reorient education system in India. Critically examine the statement. (GS2 2020)

MCQs

Question: Consider the following statements: (UPSC 2018)

- As per the right to education (RTE) Act, to be eligible for appointment as a teacher in a state, a person would be required to possess the minimum qualification laid down by the concerned State council of Teacher education.
- As per the RTE Act, for teaching primary classes, a candidate is required to pass a Teacher Eligibility Test conducted in accordance with the National Council of Teacher Education guidelines.
- In India, more than 90 % of teacher education institutions are directly under the State Governments.

Which of the statements given above is/are correct?

- 1 and 2
- 2 only
- 1 and 3

Constitutional Background

- The Indian Constitution's Article 45 and Article 39(f) initially outlined equitable and accessible state-funded education.
- The Right to Education gained significance with the 86th constitutional amendment in 2002, introducing Article 21A. This amendment made education a fundamental right and guaranteed education for children aged 6 to 14.
- It paved the way for the Right to Education Act in 2009.

What is EWS Quota?

- The 10% Economically Weaker Section (EWS) Quota was introduced in 2019, which aims to address economic disparities.
- It provides reservations in education and employment for economically disadvantaged citizens not covered by existing caste-based quotas.

Other Challenges in access to education in India

- **Non-Enrollment Barriers:** Numerous children are not enrolled in schools due to various reasons such as poverty, religion, and social and gender discrimination. Parents often lack enthusiasm for their children's education.
- **Dropouts and Economic Pressure:** Even if enrolled, many students drop out after primary education to earn a livelihood, perpetuating the cycle of illiteracy, as families prioritize immediate economic needs over education.
- **Infrastructure Gaps:** Inadequate infrastructure facilities, including well-equipped classrooms, libraries, laboratories, and sanitation facilities, hinder educational accessibility, especially in rural areas.
- **Gender Discrimination:** Gender bias continues to limit girls' access to education, despite government incentives. Many girls in rural areas receive unequal support for education within their families.
- **Teacher Shortages and Quality:** Shortages of qualified teachers and their unwillingness to work in remote areas further hinder education in rural regions. Additionally, teacher qualifications and infrastructure are often lacking.
- **Human Trafficking Victims:** Human trafficking victimizes approximately 65,000 children annually, primarily for begging and prostitution. However, only a meager 10% of such cases are reported to the authorities.

Way Forward

- **Awareness and Outreach:** Increase awareness and simplify the application process.
- **RTE Act Implementation:** Ensure schools comply and streamline the process.
- **Addressing Hurdles:** Simplify documentation and monitor schools for compliance.
- **Litigation and Policy Changes:** Address legal and policy issues.
- **Monitoring and Accountability:** Establish a robust monitoring system.
- **Support for Costs:** Assist with uniforms and school expenses.
- **Feedback and Improvement:** Gather feedback for continuous enhancement.

Conclusion

Education is the cornerstone of a nation's development, and India aspires to be a recognized global powerhouse. The government has acknowledged the importance of education by enacting the Right to Education Act, aiming to ensure every child's access to free and compulsory education. However, implementing this law, particularly in rural areas, remains a significant challenge. To achieve true inclusivity and provide quality education to economically disadvantaged students, it is imperative to streamline processes, improve implementation, and raise awareness about the Economically Weaker Section (EWS) quota seats in private schools.

(d) 3 only

Answer: (b)

Question: Consider the following: (UPSC 2011)

1. Right to education.
2. Right to equal access to public service.
3. Right to food.

Which of the above is/are Human Right/Human Rights under "Universal Declaration of Human Rights"?

(a) 1 only

(b) 1 and 2 only

(c) 3 only

(d) 1, 2 and 3

Answer: (d)

Question: Which of the following provisions of the Constitution of India have a bearing on Education? (UPSC 2012)

1. Directive Principles of State Policy
2. Rural and Urban Local Bodies
3. Fifth Schedule
4. Sixth Schedule
5. Seventh Schedule

Select the correct answer using the codes given below:

(a) 1 and 2 only

(b) 3, 4 and 5 only

(c) 1, 2 and 5 only

(d) 1, 2, 3, 4 and 5

Answer: (d)

Dropout Rates Among SC, ST, OBC Students A Concern

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news

- Concerns were raised during the **Zero Hour in the Rajya Sabha** about the **high dropout rates** among students from **Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC)** in Central higher education institutions in India.

What is the issue

- Over the last five years, 13,626 students from SC, ST, and OBC communities dropped out of Central universities, with Central Universities reporting 4,596 OBC, 2,424 SC, and 2,622 ST dropouts.
- Additionally, IITs and IIMs recorded significant dropout rates among these communities. The issue underscores concerns about inclusivity and support mechanisms in prestigious institutions.
- **Socio-economic barriers** such as financial constraints, lack of access to resources, discrimination, and social challenges disproportionately affect these marginalized groups.

News summary:

High dropout rates among SC, ST, and OBC students in Central higher education institutions has raised concerns about inclusivity and support mechanisms, highlighting socio-economic barriers to education.

UPSC Previous Year Practice

Question

Q. Skill development programmes have succeeded in increasing human resources supply to various sectors. In the context of the statement analyse

- **Possible gaps in educational policies and their implementation**, especially concerning affirmative action, financial aid, and support mechanisms for students from marginalized communities.

Sr. number	Institutes	Number of dropouts		
		OBC	ST	ST
1	Central Universities	4596	2424	2622
2	Indian Institutes of Technology (IITs)	2066	1068	408
4	Indian Institutes of Management (IIMs)	163	188	91

What is a Dropout Rate?

- The **dropout rate** is a measure used to indicate the percentage of students who leave or discontinue their education at a specific level like school, college before completing the prescribed curriculum or graduating.
- The dropout rate is a critical metric for understanding the **effectiveness and inclusivity of an educational system**.
- The dropout rate is typically calculated by dividing the number of students who drop out during a specific period (like an academic year) by the total number of students enrolled at the beginning of the period, then multiplying the result by 100 to express it as a percentage.

What are the Root Causes of High Dropout Rates Among SC, ST & OBC?

- **Economic Constraints:** Many students from SC, ST, and OBC backgrounds come from **economically disadvantaged families**. The cost of education, including tuition, books, and living expenses, can be a significant burden, leading to dropouts.
- **Social Discrimination and Stigma:** These students often face **social discrimination and stigma** in educational environments. This can manifest as bias from faculty and peers, leading to an unwelcoming and hostile educational experience.
- **Cultural factors:** Cultural differences and the lack of representation or inclusivity in the curriculum can create a sense of alienation or disengagement among students from SC, ST, and OBC backgrounds, impacting their academic performance and retention.
- **Poor Primary and Secondary Education:** Often, the primary and secondary education available to SC, ST, and OBC students is of lower quality due to disparities in educational resources.
- **Inadequate Implementation of Reservation Policies:** While reservation policies exist to support SC, ST, and OBC students, their implementation is sometimes inadequate, resulting in these students not receiving the intended benefits.
- **Family Responsibilities and Pressure:** Students from SC, ST and OBC background may face pressure to start earning at an early age to support their families. Balancing academic responsibilities with family obligations can be challenging.
- **Lack of Role Models and Guidance:** The absence of role models from similar backgrounds in academia can lead to a lack of guidance and inspiration for these students.
- **Institutional Biases:** There can be subtle institutional biases and systemic issues within educational institutions that do not adequately address the needs of SC, ST, and OBC students.

Potential Solutions for SC, ST & OBC Students

- **Financial Assistance and Scholarships:** Increase the availability of scholarships, grants, and financial aid specifically targeted at SC, ST, and OBC students. This would help alleviate the economic burden of higher education.
- For Example, Indian government started umbrella scheme of "**SHREYAS**" targeting "Top Class Education for SCs", "Free Coaching Scheme for SCs and OBCs", "National Overseas Scheme for SCs" and "National Fellowship for SCs".
- **Mentorship Programs:** Implement mentorship and counseling programs where senior students or alumni from similar backgrounds mentor new students, providing guidance and support.
- **Strengthening Primary and Secondary Education:** Improve the quality of primary and secondary education in regions predominantly inhabited by SC, ST, and OBC communities.
- For example, Funds are provided to States for making residential schools or **ashram schools** for STs for primary, middle, secondary and senior secondary level of education.

the linkages between education, skill and employment. **(2023)**

Q. The Right of Children to Free and Compulsory Education Act, 2009 remains inadequate in promoting incentive-based system for children's education without generating awareness about the importance of schooling. Analyse. **(2022)**

Q. Discuss the main objectives of Population Education and point out the measures to achieve them in India in detail. **(2021)**

Q. National Education Policy 2020 is in conformity with the Sustainable Development Goal-4 (2030). It intends to restructure and reorient education system in India. Critically examine the statement. **(2020)**

Q. How have digital initiatives in India contributed to the functioning of the education system in the country? Elaborate on your answer. **(2020)**

Q. The quality of higher education in India requires major improvements to make it internationally competitive. Do you think that the entry of foreign educational institutions would help improve the quality of higher and technical education in the country? Discuss. **(2015)**

MCQs

Q. Which of the following provisions of the Constitution does India have a bearing on Education? (UPSC 2012)

1. Directive Principles of State Policy
2. Rural and Urban Local Bodies
3. Fifth Schedule
4. Sixth Schedule
5. Seventh Schedule

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 3, 4 and 5 only
- (c) 1, 2 and 5 only
- (d) 1, 2, 3, 4 and 5

Answer: (d)

- **Eklavya Model Residential Schools (EMRSs)** are set up with a capacity of 480 students per school under grants in aid under Article 275(1) of the Constitution to States, to provide quality middle and high level education to ST students.
- **Academic Support and Tutoring:** Offer extra tutoring, bridge courses, and academic support services to help students who may be struggling with the curriculum.
- **Anti-Discrimination Policies:** Establish and enforce strict anti-discrimination policies within educational institutions to create a more inclusive and welcoming environment for SC, ST, and OBC students.
- **Awareness and Sensitization Programs:** Conduct regular awareness and sensitization programs for students and faculty to foster an understanding and appreciation of the challenges faced by marginalized communities.
- **Enhanced Infrastructure and Facilities:** Improve infrastructure and facilities in educational institutions, such as libraries, laboratories, and hostels, to ensure they are accessible and comfortable for all students.
- Under **ST hostel**, central assistance is given to States/UTs/Universities for construction of new hostel buildings and/or extension of existing hostels.
- **Monitoring and Evaluation:** Regularly monitor and evaluate the progress of SC, ST, and OBC students. This data can be used to identify areas needing improvement and to develop targeted interventions.
- **Career Counseling and Placement Assistance:** Provide career counseling and placement assistance to help students from these communities' secure employment post-graduation.
- **Community Engagement:** Engage with the communities of SC, ST, and OBC students to understand their needs and challenges better. This can also involve parents and local leaders in supporting educational endeavors.
- **Liaison Officers and Committees:** Appoint liaison officers and committees dedicated to addressing the specific needs and grievances of SC, ST, and OBC students within educational institutions.

Social Implications of High Dropout Rates Among SC, ST & OBC Students

- **Perpetuation of Inequality:** Education is a key factor in social mobility, and without it, students from these communities may find it harder to break out of poverty and marginalization.
- **Reduced Employment Opportunities:** High dropout rates can limit the professional and career prospects of individuals from these communities, further entrenching socio-economic disparities.
- **Widening the Skill Gap:** A lack of higher education can widen the skill gap in the workforce. This not only affects the individuals but can also have a broader impact on the economy, especially in sectors that rely on skilled labor.
- **Impact on Community Development:** Educated individuals often contribute significantly to the development of their communities. High dropout rates can therefore slow down the overall development and progress of SC, ST, and OBC communities.
- **Social Exclusion:** Lack of access to higher education for SC, ST, and OBC students can lead to their social exclusion, reinforcing existing caste and class divides.
- **Gender Disparities:** Women from these communities are often at a double disadvantage due to their gender and caste/class. High dropout rates can exacerbate gender disparities in education and employment within these communities.
- **Decreased Political Representation and Voice:** Lower educational attainment can lead to decreased political representation and a weaker voice in policy and decision-making for these communities.
- **Impact on Mental Health:** Experiencing the barriers that lead to dropping out, such as discrimination and financial strain, can have adverse effects on students' mental health and well-being.
- **Reduced Social Cohesion:** High dropout rates among certain communities can lead to a sense of alienation and resentment, affecting the social fabric and cohesion of society as a whole.
- **Economic Impact:** On a broader scale, high dropout rates can affect the nation's economy. A less educated workforce can mean lower productivity, innovation, and competitiveness on a global scale.

Conclusion

- The government must take immediate steps to address and reduce the dropout rates among SC, ST, and OBC students in Central higher education institutions.
- There is a need for targeted measures to support students from these communities and improve their educational experiences and outcomes.

SOCIETY

Elimination of Child Labour a Distant Goal, Country Needs Uniform Definition of 'Child' First: Parliamentary Panel

PRIMARY SOURCE: THE INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- According to the **52nd report of the Parliamentary Standing Committee** on Labour, Textiles, and Skill Development tabled in the parliament, **ambiguity in the definition of a child** under various legislations was found by the panel.

Key Observations of the Parliamentary Committee

- Ambiguity in Definition of 'Child':** The Committee identified inconsistencies in the definition of 'child' across various legislations.
- Different acts like the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986 (CALPRA), the Right of Children to Free and Compulsory Education Act, 2009, and the Juvenile Justice (Care and Protection of Children) Act, 2015, have varying age criteria for defining a child.
- Inconsistency in Laws:** The report highlighted the discrepancy between the **CALPRA Act** and the **JJ Act** regarding the treatment of child labor as a cognizable or non-cognizable offense. This leads to ambiguity and potential delays in justice for affected children.

Ambiguity in Definition of 'Child'

- Child and Adolescent Labour (Prohibition and Regulation) Act, 1986 (CALPRA):** It defines a 'child' as a person who has not completed their fourteenth year of age or the age specified in the Right of Children to Free and Compulsory Education Act, 2009, whichever is more.
- Additionally, the 2016 amendment to this Act defines a child in the age group of 14-18 years.
- Right of Children to Free and Compulsory Education Act, 2009:** This Act defines a 'child' as a male or female aged six to fourteen years.
- Minimum Wages Act, 1948 (Amendment in 1986):** Here, a 'child' is defined as a person who has not completed their fourteenth year of age.
- Juvenile Justice (Care and Protection of Children) Act, 2015:** In this Act, a 'child' is defined as a person who has not completed eighteen years of age.
- Rashtriya Kishore Swasthya Karyakaram (Ministry of Health & Family Welfare):** Defines an adolescent as a person between 10-19 years, further complicating the age definitions.

Legislative Discrepancies

- The employment of children in contravention of the **CALPRA Act** is a **cognizable offence**, whereas under the **Juvenile Justice Act, 2015**, it is a **non-cognizable offence**.

What are the Recommendations of the Parliamentary Committee?

- Uniform Definition of 'Child':** The Committee emphasized the need for a uniform definition of 'child' under various laws to avoid ambiguity and ensure consistency across different legislations.
- Examination of Discrepancies:** The Committee desires an examination of discrepancies in the age criteria for determining the status of a child in different Acts, as well as the contrasting provisions regarding offences being cognizable or non-cognizable under different Acts.
- Positive List of Occupations for Adolescents:** The panel suggested that occupations and processes where adolescents can work should not include hazardous activities.
- Guidelines for Utilization of Fines:** The Committee urged the formulation of guidelines for the utilization of funds collected as fines for employing child labour. They also recommend increasing the amount of these fines and ensuring timely deposit into the accounts of rescued children for their secure future.
- Creation of District-Level Funds:** The panel suggested creating district-level funds for immediate relief and rehabilitation of child labourers, similar to the provisions for the rehabilitation of bonded labourers.
- Stricter Punishments:** The panel recommends increasing the fine amounts and incorporating stricter punishments like cancellation of licences or attachment of property for those employing child labour.
- Accountability of Employers and Traffickers:** The Committee suggested fixing accountability not only for the employer but also for the principal employer and traffickers in cases of child labour deployment.
- Assigning Functions to DPS:** The functions related to the rescued child's data uploading on PENCIL Portal, awareness generation, and facilitating vocational training, which are currently not assigned to anyone, should be designated in a time-bound manner.

News summary:

The Parliamentary panel highlighted legislative inconsistencies in defining 'child' across laws, urging a uniform definition, suggesting amendments, stricter penalties, and better rehabilitation for eradicating child labor effectively.

UPSC Previous Year Practice Question

Q. The Right of Children to Free and Compulsory Education Act, 2009 remains inadequate in promoting incentive-based system for children's education without generating awareness about the importance of schooling. Analyse. (2022)

Q. Examine the main provisions of the National Child Policy and throw light on the status of its implementation. (2016)

MCQs

Q. International Labour Organization's Conventions 138 and 182 are related to: (UPSC 2018)

- Child Labour
- Adaptation of agricultural practices to global climate change
- Regulation of food prices and food security
- Gender parity at the workplace

Answer: (a)

Q. What significant change did the amendment in 2016 bring to the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986?

- Redefined 'child' as under 18 years
- Included adolescents in the age group of 14-18 years
- Introduced the concept of 'adolescent'
- Set a uniform definition for 'child'

Answer: (b)

- **Provisions Against Non-Registration of FIRs:** The Committee desires provisions similar to those in the Protection of Children from Sexual Offences Act for action against police for not registering FIRs in cases of child labour.
- **Responsibility of Traffic Police:** The Committee wants the traffic police to be responsible for reporting children selling goods or begging at traffic lights and to be held accountable for not reporting such instances.
- **Development of SOP:** The panel suggested that a detailed Standard Operating Procedure (SOP) be developed by the labour ministry in consultation with all concerned to avoid confusion among stakeholders.
- **Child-Friendly Police Stations and Courts:** The Committee recommended pursuing the establishment of child-friendly police stations and courts.
- **National Level Child Tracking Mechanism:** The establishment of a National Level Child Tracking Mechanism is suggested for better coordination among states and the Centre for the prevention, tracing, tracking, rescue, rehabilitation, and reintegration of rescued children.

What is Child Labour?

- Child labor, as defined by the **International Labour Organization (ILO)**, encompasses work that denies children their childhood, hinders their potential and dignity, and poses risks to their physical and mental growth.

Status of Child Labour

- According to the 2011 Census of India, there were 10.1 million working children between the ages of 5 and 14 – 5.6 million were boys, and 4.5 million were girls.
- Among these, 8.1 million resided in rural areas, primarily involved in activities such as cultivation (26%) and agricultural labor (32.9%).
- While child labor has seen a decline in rural areas, it has witnessed a significant increase in urban regions.
- An analysis conducted in 2016 by CRY (Child Rights and You) using census data revealed that the overall reduction in child labor averaged only 2.2% per year between 2001 and 2011.
- Notably, there are five states in India that stand out as the largest employers of child labor—**Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, and Maharashtra.**

Important Provisions Regarding Child Labour

- **Article 23** of the Indian Constitution strictly forbids any form of forced labor.
- **Article 24** prohibits the employment of children under the age of 14 in hazardous occupations.
- **Article 39** emphasizes the importance of safeguarding the health, strength, and the tender age of workers, both men and women, as well as children.
- The **Child Labour (Prohibition and Regulation) Act of 1986** enforces the prohibition of employing children under 14 years of age in hazardous industries and processes.
- Various policy measures, including the **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) of 2005, the Right to Education Act of 2009, and the Mid Day Meal Scheme**, have been instrumental in ensuring that children have access to education and providing guaranteed unskilled wage employment for rural families.
- Moreover, by ratifying **International Labour Organization Conventions Nos. 138 and 182 in 2017**, the Indian government has demonstrated its commitment to eradicating child labor, including those involved in hazardous occupations.

Causes of Child Labour

- **Poverty:** Many families, unable to meet their basic needs, resort to sending their children to work instead of school. In some cases, poverty pushes children into bonded labor or forces them to migrate in search of work.
- **Social Norms:** Certain communities and families have a tradition of involving their children in specific occupations like agriculture, carpet weaving, or domestic service. Some hold the belief that education is unnecessary, especially for girls.
- **Limited Job Opportunities:** High unemployment rates and low wages leave many adults and adolescents unable to secure decent, dignified employment. Consequently, they may turn to informal or hazardous work or compel their children to labor.
- **Inadequate School Infrastructure:** Many schools in India lack essential facilities, qualified teachers, and quality education. Some also impose fees and expenses that are beyond the means of impoverished families.
- These obstacles discourage parents from sending their children to school, leading to dropouts.
- **Emergencies:** Natural disasters, conflicts, and pandemics can disrupt society's normal functioning and increase children's vulnerability.

- Some children lose their parents, homes, or access to essential services, compelling them to work for survival or making them targets for exploitation by traffickers and other offenders.

Government Initiatives to Curb Child Labour

- **Right to Education Act (2009):** This act introduced Article 21A to the Constitution, recognizing education as a fundamental right for every child aged 6 to 14 years, ensuring free and compulsory education.
- **Child Labour (Prohibition and Regulation) Act (1986):** This law prohibits the employment of children under 14 and adolescents under 18 in hazardous occupations and processes.
- **The Factories Act (1948):** It restricts the employment of children under 14 in hazardous environments and imposes regulations on the working hours and conditions for adolescents (14 to 18 years), allowing them to work only in non-hazardous processes.
- **National Policy on Child Labour (1987):** This policy aims to eradicate child labor by prohibiting and regulating it, offering welfare and development programs for children and their families, and ensuring the education and rehabilitation of working children.
- **National Child Labour Project (NCLP) Scheme:** This initiative provides non-formal education, vocational training, mid-day meals, stipends, and healthcare to rescued children, subsequently integrating them into the formal schooling system.
- **Pencil Portal:** Launched by the Ministry of Labour and Employment, this platform engages the Central Government, State Government, District, civil society, and the public in eliminating child labor to achieve a child labor-free society.
- **Ratification of International Labour Organization Conventions:** India ratified two core conventions of the International Labour Organization in 2017:
- **Minimum Age Convention (1973) - No. 138:** This convention requires states to set a minimum age for employment, not less than the age of compulsory schooling completion, and preferably not less than 15 years.
- **Worst Forms of Child Labour Convention (1999) - No. 182:** This convention calls for the prohibition and elimination of the worst forms of child labor, including slavery, forced labor, trafficking, involvement in armed conflict, prostitution, pornography, illicit activities, and hazardous work endangering children's health, safety, or morals.

Challenges in Curbing Child Labour

- **Child Labour (Prohibition and Regulation) Amendment Act, 2016:** The amendment has significantly reduced the list of hazardous industries, potentially allowing employers in sectors like chemical mixing units, cotton farms, battery recycling units, and brick kilns to employ adolescent labor, often at a lower cost.
- **Inclusion of "Family Enterprises":** Allowing child labor in "family or family enterprises" raises concerns about child labor in agrarian rural India, where impoverished families may be caught in intergenerational debt-bondage.
- **Definitional Ambiguity:** One of the primary obstacles in combating child labor is the lack of clarity regarding the age at which an individual qualifies as a child under various child labor laws.
- **Challenges in Age Identification:** Identifying the ages of children is a complex task in India due to the absence of proper identification documents.
- Many child laborers lack school registration certificates and birth certificates, creating loopholes for exploitation.
- Additionally, children of migrant workers and those employed in domestic work often go unreported.
- **Weak Enforcement and Governance:** Weak enforcement of child labor laws, insufficient deterrence mechanisms, and corruption pose significant barriers to eradicating child labor.

Way Forward

- Child labour represents a destructive cycle involving poverty, unemployment, underemployment, and inadequate wages. To break this cycle, there needs to be a collective effort to implement social protection programs and provide cash transfers, aimed at improving the economic well-being of families and reducing the necessity of sending children to work.
- It is imperative to overhaul the educational infrastructure, ensuring accessibility to educational institutions while enhancing the quality and relevance of education.
- Furthermore, harmonizing existing Indian laws concerning child labor is crucial. These laws should broaden the definition of a child, prohibit their employment, and enforce free and compulsory education, as outlined in the Right to Education Act of 2009, for children below 18 years of age.
- A national campaign is urgently required to generate public interest and raise widespread awareness about child exploitation and the scourge of child labor.

- The government should take proactive measures to educate families and communities, recognizing the pivotal role of parental literacy in upholding children's rights.
- The elimination of child labor necessitates a commitment from all sectors of society, including families, the government, civil society, and employers who engage children in any form of labor.
- Several NGOs such as **Bachpan Bachao Andolan, CARE India, Child Rights and You, Global March Against Child Labour, RIDE India, and Childline**, among others, have been tirelessly working to eradicate child labor in India.

Conclusion

The panel stresses on the necessity of a uniform child definition across legislations to effectively combat child labour. It recommends a comprehensive strategy involving amendments to existing laws, improved enforcement mechanisms, and enhanced inter-ministerial and inter-state coordination.

Is Unmarried Women Having Children by Surrogacy an 'Accepted Norm', Asks SC

PRIMARY SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- The Supreme Court of India has raised questions about the societal norms and acceptability regarding single, unmarried women having children through surrogacy.

Context of the Case

- A 38-year-old single woman, who is heavily diabetic, petitioned the Supreme Court to become a mother through surrogacy.
- Her condition makes pregnancy a significant health risk.

Petitioner's Argument

- **Health Concerns:** The petitioner is a 38-year-old single woman who is heavily diabetic. She argued that pregnancy would pose a grave risk to her health, implying that surrogacy is a safer option for her to become a mother.
- **Right to Motherhood:** The argument is made that even an unmarried woman has the right to have a child. This is a fundamental assertion that challenges societal norms and seeks to expand the scope of who can access surrogacy under the current legal framework.
- **Interpretation of the Surrogacy (Regulation) Act, 2021:** The Act allows a widow, a divorced woman between the ages of 35 and 45, or an infertile couple to benefit from surrogacy. The law only bans commercial surrogacy, and since the petitioner's purpose is not commercial, she should be eligible for surrogacy.
- **Comparison with Widows and Divorcees:** The petitioner's side argued that the law recognizes the potential of widows or divorcees to have children through surrogacy. They argue that this should not be based on their "misfortune" of being widowed or divorced.

Supreme Court's Observations

- Justice B.V. Nagarathna made an oral observation, highlighting that in Indian society, having children within marriage is the norm, and single women bearing children is an exception.
- Justice Nagarathna noted that Parliament had recognized the potential of a widow or a divorcee to have a child through surrogacy, suggesting a legislative intent to cater to specific groups.

Discriminatory Issues Against Unmarried Women

- **Social Norms vs Individual Rights:** The Supreme Court's questioning reflects a tension between traditional social norms in India, which emphasize having children within marriage, and the rights of individuals (in this case, single women) to make reproductive choices.
- **Violation of Fundamental Rights:** Limiting the right to become a mother based on marital status is discriminatory. This argument is grounded in the principle that such a limitation violates the fundamental rights of a woman.
- **Patriarchal Stigma:** The petitioner's argument about the exclusion of unmarried women being a result of patriarchal stigma addresses the societal bias against women who choose to live and make reproductive choices outside of traditional marital norms.

Important Constitutional Provisions

- **Article 21 - Right to Life and Personal Liberty:** The Supreme Court of India has expansively interpreted the right to life and personal liberty to encompass the right to health and the right to make decisions about one's body.
- **Article 14 - Right to Equality:** The Article ensures that the state shall not deny any person equality before the law or the equal protection of the laws. Discrimination in access to reproductive health services or forced sterilizations would violate this right.
- **Article 15 - Prohibition of Discrimination:** This Article prohibits discrimination on the grounds of religion, race, caste, sex, or place of birth. Any legislation or policy that discriminates against women in terms of their reproductive rights could be challenged using this article.

News summary:

The Supreme Court questioned societal acceptance of unmarried women using surrogacy due to health concerns. It probes the legal framework's limitations, highlighting a debate on reproductive rights and societal norms.

MCQs

Q. In the context of recent advances in human reproductive technology, "Pronuclear Transfer" is used for (UPSC 2020)

- fertilization of egg in vitro by the donor sperm
- genetic modification of sperm producing cells
- development of stem cells into functional embryos
- prevention of mitochondrial diseases in offspring

Answer: (d)

- **Article 19 - Freedom of Expression:** While primarily concerning the freedom of speech and expression, this can be linked to reproductive rights in terms of the freedom to seek, receive, and impart information, including information about reproductive health.

What is Surrogacy?

- **Surrogacy** is a reproductive method where a woman (the surrogate mother) agrees to carry and give birth to a baby for another person or couple (the intended parent or parents) who will become the child's legal parent(s) after birth.
- The process of surrogacy often involves legal and contractual agreements to ensure the rights of all parties involved (the surrogate mother, the intended parents, and the child).
- The legalities and acceptance of surrogacy vary widely from country to country, and in some places, it may be entirely prohibited or restricted to certain forms, such as altruistic surrogacy or commercial surrogacy.
- **In altruistic surrogacy**, the surrogate mother agrees to carry and give birth to the child without receiving any financial compensation or profit for her services.
- The surrogate may be reimbursed for medical and other reasonable expenses directly related to the pregnancy and birth, but she does not earn a fee or profit for the surrogacy itself.
- **In commercial surrogacy**, the surrogate mother receives a monetary compensation beyond just the medical expenses.
- This compensation is for her services as a surrogate, and it's essentially a fee for carrying and delivering the child for the intended parents.

Need for Surrogacy Regulations in India

The Surrogacy (Regulation) Act was introduced in India due to several pressing concerns related to surrogacy practices in the country.

- **Unregulated Commercial Surrogacy:** India had become a hub for commercial surrogacy, attracting people from different parts of the world due to lower costs and lack of strict regulations. The unregulated nature of this industry raised several ethical and legal dilemmas.
- **Exploitation of Surrogate Mothers:** There were numerous reports suggesting the exploitation of economically disadvantaged women, especially in rural areas, who became surrogate mothers primarily for monetary benefits.
- **Commodification of the Child:** Commercial surrogacy was criticized for treating children as commodities, with transactions resembling a marketplace for babies.
- **Child's Rights and Citizenship Issues:** There were instances where children born out of surrogacy faced issues related to citizenship, abandonment, and legal parentage, especially in cases involving foreign couples.
- **Ethical Concerns:** There were concerns about the ethical implications of surrogacy arrangements, such as the potential for coerced pregnancies, the selection of specific traits (e.g., gender), and multiple embryo implantations leading to forced abortions of additional fetuses.
- **Medical Concerns:** Multiple embryo implantations, a practice often employed to increase the chances of a successful pregnancy, raised medical concerns due to the increased risks associated with multiple pregnancies and births.
- **Legal Ambiguities:** In the absence of a comprehensive legal framework, disputes arose over parental rights, the rights of the surrogate mother, and the fate of the child, especially if born with congenital conditions or disabilities.
- **International Scrutiny:** The surrogacy industry in India came under international scrutiny due to concerns over the exploitation of surrogate mothers and the legal and ethical complications arising from international surrogacy agreements.

Surrogacy (Regulation) Act, 2021

Here are some key details and provisions of the Surrogacy (Regulation) Act, 2021:

- **Prohibition of Commercial Surrogacy:** The act prohibits commercial surrogacy, which involves a surrogate mother receiving monetary compensation (other than medical expenses) for carrying a child. Only altruistic surrogacy, where no monetary benefit (except for medical expenses) is provided to the surrogate, is allowed.
- **Eligibility for Intending Couples:** The act specifies that only Indian married couples can avail of surrogacy. They should be legally married for at least five years, with the woman being between 23 to 50 years and the man between 26 to 55 years. Additionally, the couple should have a medical certificate indicating their need for surrogacy.
- **Eligibility for Surrogate Mothers:** A surrogate mother should be a close relative of the intending couple, married, and have at least one biological child of her own. She should be aged between 25 to 35 years and should not have been a surrogate more than once.
- **Prohibition on Sale of Human Embryos:** The act strictly prohibits the sale or import of human embryos for surrogacy.

- **Establishment of Regulatory Bodies:** The act calls for the creation of the National Surrogacy Board at the central level and State Surrogacy Boards at the state level. These boards will regulate and oversee surrogacy clinics and practices.
- **Rights of a Child Born through Surrogacy:** A child born through surrogacy will have the same rights and privileges as a biological child.
- **Provisions against Exploitation:** The act includes measures to prevent the exploitation of both surrogate mothers and children born through surrogacy.
- **Penalties:** Engaging in commercial surrogacy, abandoning or exploiting the child, or importing embryos can result in imprisonment and fines.
- **Ethical Guidelines:** The act mandates surrogacy clinics to follow certain prescribed guidelines that ensure ethical practices.

Challenges / Criticism Related to Surrogacy Regulations

- The two Acts have been criticized as **discriminatory towards unmarried men** who want to become fathers through surrogacy or married women who already have children and want to extend their family through the technique.
- **Disqualifying** others on the basis of their nationality, marital status, sexual orientation, or age fails the equality test.
- Reproductive autonomy, which includes the right to procreation and parenthood, is outside the purview of the state.
- **Infertility** cannot be required to pursue surrogacy: the certificate to establish infertility is an invasion of privacy under **Article 21** of the Constitution.
- **Surrogacy Hub in India:** India has emerged as a hotspot for infertility treatment, luring people from all over the world with its cutting-edge technology and reasonable pricing to cure infertility.
- The altruistic paradigm assumes that a woman will undergo the physical and mental tolls of surrogacy for free and only out of compassion. In its approach, such an expectation is paternalistic, unreasonable, and patriarchal.
- It denies surrogates a valid source of income, which substantially limits the number of women prepared to go through surrogacy and, indirectly, denies intending parents the option to use it.

Conclusion

The case highlighted the ongoing legal and societal debate in India regarding the rights of unmarried women to motherhood, specifically through surrogacy. It brought to the forefront issues of gender discrimination, societal norms, and the interpretation of fundamental rights in the context of reproductive choices.

INTERNAL SECURITY

Grassroots Democracy As A Bulwark Against Maoists

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- This article discusses the challenges posed by Maoism in states with large tribal populations.
- The author recommends strengthening grassroots democracy as a way to counter the challenge.

Democracy in Maoist-controlled tribal communities

- In Chhattisgarh, tribal voters have 34% of the vote share, making them a critical demographic in the state's politics.
- However, Chhattisgarh's tribal regions account for a large share of the Maoist insurgency movement with tribals forming the main cadre base of the movement
- Traditionally, these Schedule Five regions have suffered from violence during the elections as a result of the boycott called by the Maoists.
- According to media reports, voter turnout in Maoist-affected areas like Bijapur and Konta in the 2023 Chhattisgarh Assembly elections was as low as 3% to 4%.
- **Boycotts lead to disempowerment:** Although the Maoists claim to fight the state for people's causes, the Maoist-called boycotts effectively deprive the tribal communities of the ideal tool for empowerment i.e. participation in the democratic process.
- **Parallel government:** The janatana sarkar or parallel government run by the Maoists has been able to attract the tribal despite the lack of its mid and long-term prospects.
 - However, the state has not been able to inspire the population enough which has in turn discouraged participation in the democratic process.
 - This was particularly concerning since people used to ignore previous boycott calls.
- **Religion-based conversions:** Conversions were a major topic for the tribal community at the recent elections.

News summary:

This article discusses Maoist challenges in tribal areas and advocates for grassroots democracy to counter Maoism. It delves into the PESA Act's underutilization and recommends focused development initiatives.

UPSC Mains Practice Questions

Q.1) Left-wing extremism (LWE) is showing a downward trend but still affects many parts of the country. Briefly explain the Government of India's approach to counter the challenges posed by LWE. (GS32018)

Q.2) The persisting drives of the government for the development of large industries in backward areas have resulted in isolating the tribal population and the farmers who face multiple displacements with Malkangiri and Naxalbari foci, discuss the corrective strategies needed to win the left-wing extremism (LWE)

- However, it was viewed as a manufactured agenda by political interests to divert attention from basic issues.
- **Assertion of rights:** Enhanced awareness of their constitutionally guaranteed rights has manifested in tribal movements such as the Pathalgadi movement in Jharkhand.
- These movements have allowed the increasingly aware tribal community to demand their rights and dignity, often through resistance.

Maoism

- According to the Union Ministry of Home Affairs, Maoism is a form of communism that was developed by Mao Tse Tung.
- It is a doctrine that aims to capture State power through a combination of armed insurgency, mass mobilization, and strategic alliances.
- It also involves the use of propaganda and disinformation against state institutions.
- The central theme of the Maoist ideology is the use of violence and armed insurrection as a means to capture State power.
- The Communist Party of India (Maoist) and all its front organization formations have been included in the list of banned terrorist organizations under the Unlawful Activities (Prevention) Act, of 1967.
- **Severely affected states:** Chhattisgarh, Jharkhand, Orissa and Bihar.
- **Partially affected states:** West Bengal, Maharashtra, and Andhra Pradesh
- **Slightly affected states:** Uttar Pradesh and Madhya Pradesh

PESA

- The Panchayat (Extension to Scheduled Areas) Act was passed by the Union Government in December 1996 to enable tribal self-rule in Scheduled Areas.
- It was enacted in response to the Bhuria Committee's recommendations in 1995, enabling tribal self-rule for people residing in India's scheduled areas.
- It took inspiration from the provisions of the 73rd and 74th amendments and aimed to encourage face-to-face contact between people at the grassroots level and was aligned with the tribal way of life in historical and traditional terms.

Key provisions

- The Gram Sabha was established as a forum for community participation in the development process by identifying, preparing, and implementing development plans.
- It established village-level institutions like the Gram Panchayat, Gram Sabha, and Panchayat Samiti to provide basic services and development activities.
- The Gram Sabha and Gram Panchayat were empowered to manage natural resources, protect the environment, and regulate economic activities.
- It stated that the Gram Sabha was to be consulted before any development projects or activities were undertaken in the Scheduled Areas.
- It permitted funds to be transferred to the Gram Sabha and Gram Panchayat to assist them in completing their duties.
- The land rights of the tribal communities in the Scheduled Areas were protected by the Act and required that their consent be obtained before any land was acquired or transferred.
- It prohibits any interference in the cultural and social practices of communities in the Scheduled Areas.

Challenge in the Maoist areas

- However, it has not been implemented in the correct spirit by any of the state governments through policy directives.
- The Act was aimed at empowering the gram sabhas as the sole authority to govern the socio-economic lives of the tribal community in their respective jurisdictions.
- However, the half-hearted implementation of the act by the states has been exploited by the Maoists to implement their agenda in the regions under their control through their parallel government.
- The PESA Act had the potential to enable the mainstreaming of the tribal community and accommodate their aspirations.
- If implemented in a dedicated manner, it could lead to the Maoists becoming irrelevant.

To know more, click the [link](#).

Government initiatives to address LWE

- **'National Policy and Action Plan to address Left Wing Extremism 2015:**
- It adopted a comprehensive approach involving governance, security, and development that aims to enhance the capabilities of security forces to combat LWE and contain its spread.
- It aims to safeguard the rights and entitlements of local communities and ensure socio-economic development in affected regions.
- **SAMADHAN:**

doctrine that affected citizens back into the mainstream of social and economic growth. (GS3 2015)

Q.3) Article 244 of the Indian Constitution relates to the Administration of Scheduled areas and tribal areas. Analyze the impact of non-implementation of the provisions of the fifth schedule on the growth of Left Wing Extremism. (GS3 2013)

MCQs

Question: With reference to 'Scheduled Areas' in India, consider the following statements:

1. Within a State, the notification of an area as Scheduled Area takes place through an Order of the President.
2. The largest administrative unit forming the Scheduled Area is the District and the lowest is the cluster of villages in the Block.
3. The Chief Ministers of the concerned States are required to submit annual reports to the Union Home Ministry on the administration of Scheduled Areas in the States.

How many of the above statements are correct? (UPSC 2023)

- a. Only one
- b. Only two
- c. All three
- d. None

Answer: (b)

- It is the one-stop solution for the LWE problem that covers the entire strategy of government from short-term policy to long-term policy at different levels. SAMADHAN stands for:
- S- Smart Leadership
- A- Aggressive Strategy
- M- Motivation and Training,
- A- Actionable Intelligence
- D- Dashboard Based Key Performance Indicators
- H- Harnessing Technology
- A- Action plan for each Theatre,
- N- No access to Financing.

Way forward

- In order to encourage democracy at the grassroots level, the state will have to debunk the narrative created by the Maoists portraying them as the champions of the tribal cause.
- It must acknowledge and give voice to the tribal leadership in all matters relating to them.
- This requires a long-term strategy to address the deep-rooted democratic aspirations of the tribals instead of the short-term approach of addressing the Maoist challenge.
- The government should focus on development initiatives tailored to meet the needs of the local population such as infrastructure, employment, land rights, etc.
- The state police can be empowered to take the lead in anti-Naxal operations thus making use of their better understanding of the local language and terrain.
- Alongside this, the government can adopt a humanitarian approach and initiate a dialogue with the Naxal leadership to address their grievances and concerns.
- Affected states should coordinate their efforts by sharing intelligence, resources, and best practices.

ULFA Faction Signs Peace Agreement

SOURCE: INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- Recently, the pro-talks faction of the United Liberation Front of Asom (ULFA) signed a peace accord with the Union and state governments.



What was the recent peace accord?

- The **pro-talks faction of the United Liberation Front of Asom (ULFA)** signed a **tripartite memorandum of settlement** with the Union government and the government of Assam in which they committed to shunning violence, disbanding the organization, and joining the democratic process.

Terms of the Settlement

- **Non-violence:** ULFA representatives agreed to **forgo violence** and **lay down all their arms and ammunition**.
- **Vacation of camps:** All camps occupied by ULFA's armed cadres would be vacated.
- **Democratic participation:** They would also **engage in the peaceful democratic process established by law** and work towards **maintaining the integrity of the country**.
- **Development of Assam:** The Union government has agreed to provide a huge package and several big projects for the all-round development of Assam.
- This will also include an **investment of ₹1.5 lakh crore**.
- **Delimitation:** 97 out of 126 seats were secured for Indigenous people after the recent delimitation process in the state. It was agreed that this would continue.

News summary:

The pro-talks faction of ULFA in Assam signed a tripartite peace agreement with the Union and state governments, pledging non-violence, democratic involvement, and Assam's development through substantial investments.

UPSC Mains Practice Questions

- Q.1** Human rights activists constantly highlight the view that the Armed Forces (Special Powers) Act, 1958 (AFSPA) is a draconian act leading to cases of human rights abuses by the security forces. What sections of AFSPA are opposed by the activists? Critically evaluate the requirement with reference to the view held by the Apex Court. (GS3 2015)
- Q.2** The north-eastern region of India has been infested with insurgency for a very long time. Analyze the major reasons for the survival of armed insurgency in this region. (GS3 2017)

MCQs

Question: The provisions in the Fifth Schedule and Sixth Schedule in the Constitution of India are made in order to [UPSC 2015]

- protect the interests of Scheduled Tribes
- determine the boundaries between States
- determine the powers, authority, and responsibilities of Panchayats
- protect the interests of all the border States

Answer: (a)

- **Committee formation:** A committee would be formed under the Union Ministry of Home Affairs to monitor the implementation of the program.
- **Constitutional safeguards:** Land rights would be protected and restrictions on migration from one constituency to another would be put in place.

What is the ULFA?

- The **United Liberation Front of Assam (ULFA)** was formed during the **anti-foreigner movement** of 1979 in Assam.
- The Assamese people have their own, unique culture and language, and a strong sense of identity.
- **Since the 19th century, Assam's tea, coal, and oil economy has attracted migrants from all over.**
- This resulted in the formation of insecurities among the indigenous population which was further exacerbated by Partition, and the subsequent exodus of refugees.
- As a result, a six-year-long mass movement was launched until the **Assam Accord was signed in 1985** to find a satisfactory solution.
- However, a group of more radical thinkers led by Bhimakanta Buragohain, Arabinda Rajkhowa, Anup Chetia, Pradip Gogoi, Bhadrashwar Gohain, and Paresh Baruah formed ULFA on April 7, 1979.
- **Objective:** Establish a **sovereign Assamese nation (Swadin Asom)** through armed struggle against the Indian state.
- It has used strategies such as kidnappings, extortions, executions, and bomb blasts to achieve its goals.
- **Factions:**
 - **Pro-talks faction** led by Arabinda Rajkhowa and
 - **Anti-talks faction** led by Paresh Baruah.
- **Geographical influence:** They generally operated through camps in jungles, hilly areas, and cross-border areas.
- It also has camps in Myanmar, Bangladesh, and Bhutan.
- **Links to other insurgents:** It has been linked with the ISI (Pakistan) and other terror outfits in the Northeast, Myanmar, etc.
- **Censure by the government:** The **Government of India banned the organization and termed it a terrorist organization in 1990 under the Unlawful Activities (Prevention) Act.**
- **Other insurgent groups in Assam:** Bodo Liberation Tigers, National Democratic Front of Bodoland (N.D.F.B.), and the **United People's Democratic Solidarity (U.P.D.S.).**



Government's strategy against the ULFA

- In 1990, the Centre launched **Operation Bajrang** in which 1,221 ULFA insurgents were arrested.
- Assam was declared a '**disturbed area**' and **President's rule** and the **Armed Forces Special Powers Act (AFSPA)** were invoked.
- The government has also attempted to use **factionalism in the ULFA** to counter the strategies of the ULFA.
- **Peace talks:**
 - The pro-talks faction of the ULFA has been proactive in conducting talks with the government and in 2011 signed the suspension of operation (SoO) with the MHA and the Assam government.
 - In 2005, the ULFA formed an 11-member '**People's Consultative Group**' (PCG) comprising noted intellectuals and Jnanpith awardee author late Indira Raisom Goswami.
 - The committee mediated three rounds of talks before the ULFA walked out.

What were the major factors behind the insurgency in Assam and the growth of ULFA?

- **Ethnicism:** Assam has traditionally witnessed tensions between the indigenous ethnic groups of the state.

- These include the **Bodo (35%), Mishing (17.52%), Karbi (11.1%), Rabha (7.6%), Sonowal Kachari (6.5%), Lalung (5.2%), Garo (4.2%), and Dimasa (3.2%)**.
- These ethnic groups have been in constant conflict for autonomy over the years.
- **Immigration:** The arrival of **Bengali-speaking Muslims from Bangladesh** has been a major source of tension in the state as the locals see the migrants as a **threat to their unique identity, culture, and economic well-being**.
- **Political:** **Sub-national or regional movements** like the **demand for Bodoland** have also arisen in the state, contributing to the insurgency.
- **Economic:** The Northeast region of India, including Assam, has remained **isolated from mainland India**.
- This has prevented the state's economy from growing as quickly as some of the larger states on the mainland.
- Moreover, insurgents were able to build a **perception of the Delhi-based Union government misusing and exploiting the resources of the Northeast**.

Conclusion

The tripartite settlement with the pro-talks faction of the United Liberation Front of Asom (ULFA) marks a significant step towards peace in Assam. The Agreement which addresses historical grievances also emphasizes non-violence, democratic participation, and development. It therefore provides a framework for the socio-political transformation of Assam.

Global Military Aviation Market To Grow To \$60 Bn By 2030: CDS

SOURCE: INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- Recently, Chief of Defense Staff, General Anil Chauhan, claimed at the Avionics Expo-2023 that the Global Military Aviation Market was expected to grow to \$60 billion by 2030.
- He recommended that the military and the civil aviation sector collaborate to reduce import dependency in the country.

What has the CDS stated at Avionics Expo-2023?

- **Global military aviation market:** According to the CDS, the **global military aviation market was set to grow to around \$60 billion by 2030**.
- He claimed that the sector would witness a compounded annual growth of 5% in the next 10 years.
- **Reduction of import dependency:** He recommended **collaboration between the military and civil aviation sectors** as this would help reduce India's import dependency in the sector.
- This would enable the Indian defense industry to exploit opportunities provided by the growth of the global military aviation market.
- The Indian industry should follow the principle of **'Make for India and Make for World'**.
- According to the CDS, the Indian defense industry has the potential to drive the country's economic goals.
- It will generate employment opportunities in areas such as pilots, cabin crew, and maintenance staff.
- **Indigenization:** The CDS said that India would have to develop indigenous solutions to the challenges faced as a result of **supply chain disruptions due to global uncertainties such as COVID-19 and the Russia-Ukraine war**.
- He identified **remote-controlled communication, and data transmission for manned and unmanned teaming** as the major trends in the avionics sector.
- Moreover, the avionics sector would have to be made capable of collecting, processing, and disseminating information in real-time to enable on-field decision-making.

Chief of Defense Staff (CDS)

- The **Chief of Defense Staff is a four-star General who acts as the Principal Military Advisor to the Union Defence Minister on all tri-services matters**.
- The CDS oversees and coordinates the working of the three defense services in India.
- He is vested with the authority to provide directives to the three chiefs of armed forces but does not enjoy any command authority over any of the three forces.
- The CDS is **first among equals and enjoys the rank of Secretary within the Department of Defence (DoD), Ministry of Defence**.
- However, his powers are confined to only the revenue budget.

Role of CDS

- **Principal Military Adviser:** The CDS acts as the Principal Military Adviser to the Union Defence Minister on tri-services matters and the military adviser to the Nuclear Command Authority.
- **Head of Department of Military Affairs:** The CDS heads the Department of Military Affairs (DMA).

News summary:

The Chief of Defense Staff projects a \$60 billion global military aviation market by 2030, urging collaboration between civil and defense aviation sectors to curtail India's import dependency and boost indigenization.

- **Permanent Chairman of the Chiefs of Staff Committee (COSC):** The CDS is the permanent chairman of the COSC.
- He administers all tri-service organizations and commands.
- The CDS is a **member of the Defence Acquisition Council and Defence Planning Committee.**
- He implements the five-year Defence Capital Acquisition Plan (DCAP) and two-year Defence Annual Acquisition Plans.

Significance of CDS

- The CDS can help in the **oversight and coordination of the working of the three defense services.**
- The CDS thus helps **create synergy in the functioning of the country's security apparatus.**
- The CDS provides **effective direction at the highest level** of the defense forces in the country which will improve policy-making on operations, procurement, and logistics.
- The CDS will help **optimize the use of the available resources** in tackling threats and **holistic management of national security.**
- It helps create a **coherent tri-service perspective** instead of a disaggregated single-service perspective, which will help in better policy formulation.

Why is the indigenization of the Indian forces necessary?

- **Self-defense:** The presence of **hostile neighbors like China and Pakistan** makes it essential for India to be well-prepared to handle security challenges at all times.
- Self-reliance will make India's position as a net security provider for the neighborhood stronger.
- **Economic boost:** Advancement of the defense technology sector through indigenization will provide a **boost for other industries in the country.**
- This would help develop the entire economy and prevent economic drain.
- *India spends around 3% of its GDP on defense with 60% of this amount spent on imports.*
- **Employment:** Indigenous Defence manufacturing will create more employment opportunities directly and indirectly.
- According to government estimates, a **20-25% reduction in defense-related imports could directly create 100,000 to 120,000 highly skilled jobs in India.**

Indigenization efforts by HAL

- **Hindustan Aeronautics Limited (HAL)** is a state-owned Indian aerospace and defense firm headquartered in Bangalore.
- In the next five years, HAL is attempting to increase indigenously designed and developed avionics from 40-45% to 75-80% in the **Light Combat Aircraft (LCA) Tejas and Light Combat Helicopter (LCH) Dhruv.**
- More than 50% of the avionics systems used in indigenous LCA Tejas, advanced light helicopter Dhruv, and light utility helicopters were indigenous.
- Self-reliance has been achieved in most avionics systems such as mission computers, navigation systems, communication systems, and display systems.
- This has allowed HAL to offer its ALH and LCA platforms to foreign customers with customization as per the requirement of the end user.
- **Countries like Nigeria, the Philippines, Argentina, and Egypt have expressed interest in procuring the LCA Tejas.**

Light Combat Aircraft Tejas



- **LCA Tejas is a single-engine multirole light combat aircraft.**
- It replaced the aging Mig 21 fighter planes.
- It is the second supersonic fighter jet that was developed by HAL (the first one being the HAL HF-24 Marut).

- **Bodies involved:**
 - Aeronautical Development Agency (ADA)
 - DRDO as the design agency
 - Hindustan Aeronautics Limited as the manufacturer.
- It is the **lightest and smallest multirole supersonic fighter aircraft in its class.**
- It can attain the maximum speed of Mach 1.8.
- It is designed to carry a range of **air-to-air, air-to-surface, precision-guided, and standoff weaponry.**
- It is a single-pilot aircraft that has a maximum takeoff weight of 13,300 kg.
- It has a general range of 850 km and a combat range of 500 km.

ALH DHRUV



- **Advanced Light Helicopter (ALH-DHRUV)** is an indigenously designed and developed twin-engine, multi-role, multi-mission new generation helicopter in the 5.5 ton weight class.
- It has been equipped with the **Shakti engine** manufactured by HAL.
- It is operated by all three Defense services and the Coast Guard.
- It is used for commuting, VIP travel, search and rescue, evacuation, rapid deployment of forces, logistic support, and training.
- **Features:**
 - Mitigate low visibility during search and rescue operations even at night.
 - LIMO (low-intensity maritime operations) capabilities
 - Improved automatic flight control system.

SCIENCE AND TECH

U.S. FDA Approves Pair of Gene Therapies for Sickle Cell Disease

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the News?

- Recently, the **U.S. Food and Drug Administration (FDA)** has approved **two gene therapies** for **sickle cell disease**.
- The therapies include **Lyfgenia** by bluebird bio and **Casgevy** by Vertex Pharmaceuticals and CRISPR Therapeutics.
- These treatments are notable for being the **first** to use **CRISPR gene editing technology** in sickle cell disease treatment.

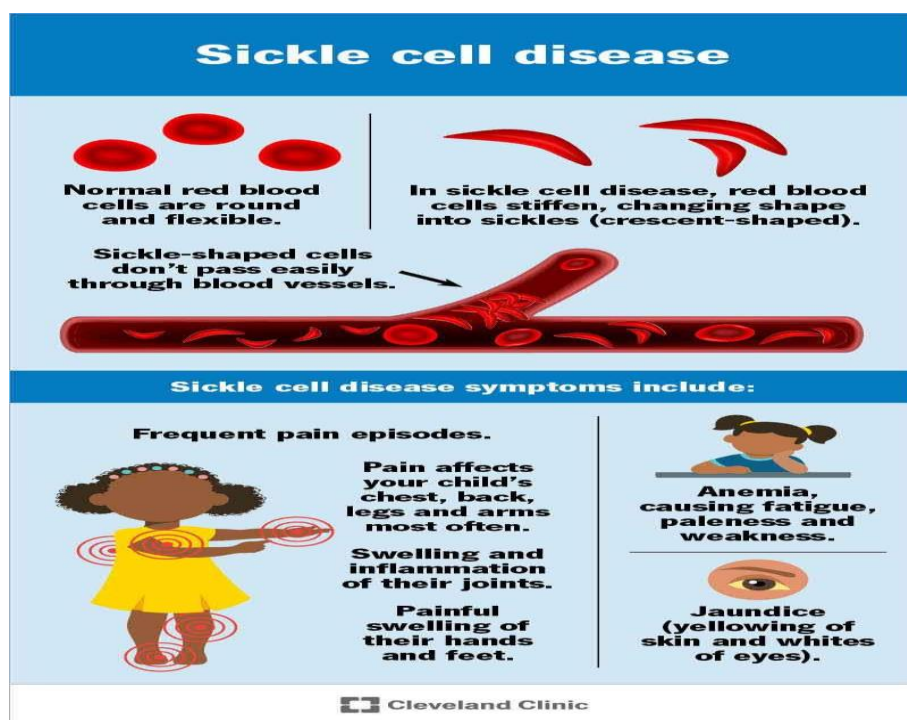
News summary:

The FDA's approval of two gene therapies, Casgevy and Lyfgenia, for sickle cell disease marks a breakthrough, utilizing CRISPR technology, aiming to modify red blood cells, though posing accessibility and safety concerns.

UPSC Previous Year Practice Question

Q. What is the basic principle behind vaccine development? How do vaccines work? What approaches were adopted by the Indian vaccine manufacturers to produce COVID-19 vaccines? **(2022)**

Q. What are the research and developmental achievements in applied biotechnology? How will these achievements help to uplift the poorer sections of society? **(2021)**



What is Sickle Cell Disease?

Sickle Cell Disease (SCD) is a group of **inherited red blood cell disorders**. It's characterized by an abnormality in the oxygen-carrying protein hemoglobin found in red blood cells.

- **Genetic Cause:** SCD is caused by a **mutation in the gene** that tells the body to make hemoglobin, the protein in red blood cells that carries oxygen throughout the body. People with SCD inherit two abnormal hemoglobin genes, one from each parent.
- **Sickle-Shaped Red Blood Cells:** In SCD, the abnormal hemoglobin causes red blood cells to become rigid and shaped like **crescent moons or sickles, instead of the normal, round shape**.
- These sickle cells can get stuck in small blood vessels, which can slow or block blood flow and oxygen to parts of the body.
- **Symptoms:**
- **Painful Episodes:** Known as sickle cell crises, these are caused by the obstruction of blood flow due to the sickle-shaped cells.
- **Anemia:** Due to the shorter lifespan of sickle cells (10-20 days compared to the normal 120 days), patients often suffer from anemia.
- **Infections:** People with SCD are more prone to infections, especially in childhood, due to the spleen damage caused by sickle cells.
- **Delayed Growth:** Children with SCD may experience slower growth and reach puberty at a later age.
- **Vision Problems:** Blockage of blood vessels in the eyes can lead to vision problems.
- **Complications:** SCD can lead to chronic pain, acute chest syndrome (a lung-related complication), stroke, organ damage, and increased risk for severe bacterial infections.
- **Treatment:** Treatment includes pain management, blood transfusions, and other interventions to relieve symptoms and prevent complications. **Bone marrow or stem cell transplants** may offer a cure for a small number of patients.

What is CRISPR-Cas9 Technology ?

- **Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)** is a form of **genome editing technology** that mimics the defense strategies bacteria use against viruses, utilizing a special protein known as **Cas9**.
- This process, a type of genetic engineering, typically involves either **introducing a new gene or inhibiting an existing one**. However, CRISPR itself does not require adding any external genes.
- Often described as '**Genetic Scissors**,' CRISPR-Cas9's functioning is comparable to the '**cut-copy-paste**' or '**find-replace**' features found in standard computer programs.
- In this process, a problematic segment of DNA, responsible for a disease or disorder, is identified, excised, and then substituted with a 'correct' sequence.
- The tools for this procedure are biochemical, consisting of specific proteins and RNA molecules.
- This technology mirrors a natural defense mechanism used by certain bacteria, which employs a similar approach to fend off viral attacks.

Q. Why is there so much activity in the field of biotechnology in our country? How has this activity benefitted the field of biopharma? (2018)

MCQs

Q. In the context of vaccines manufactured to prevent COVID-19 pandemic, consider the following statements: (UPSC 2022)

1. The Serum Institute of India produced COVID-19 vaccine named Covishield using mRNA platform.
2. Sputnik V vaccine is manufactured using a vector based platform.
3. COVAXIN is an inactivated pathogen based vaccine.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (b)

Q. With reference to recent developments regarding 'Recombinant vector Vaccines', consider the following statements: (UPSC 2021)

1. Genetic engineering is applied in the development of these vaccines.
2. Bacteria and viruses are used as vectors.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (c)

Q. What is the importance of using **Pneumococcal Conjugate Vaccines in India?** (UPSC 2020)

1. These vaccines are effective against pneumonia as well as meningitis and sepsis.
2. Dependence on antibiotics that are not effective against drug-resistant bacteria can be reduced.
3. These vaccines have no side effects and cause no allergic reactions.

Select the correct answer using the code given below:

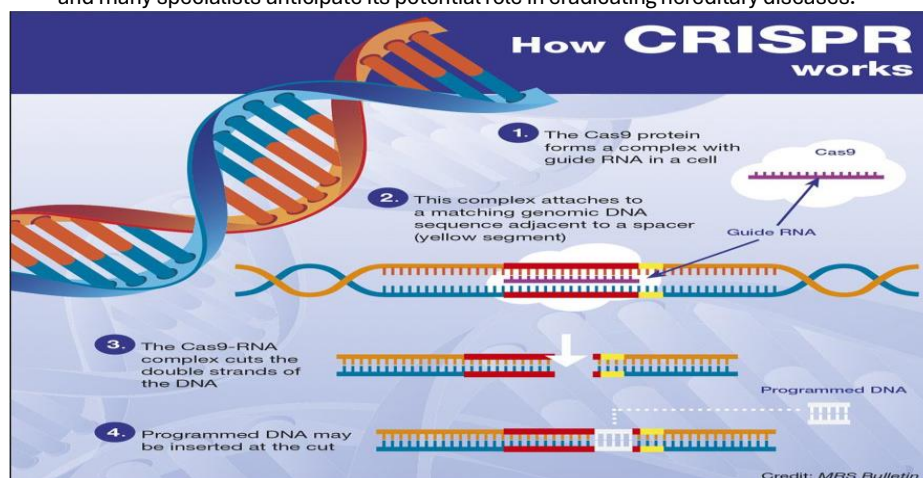
- (a) 1 only
- (b) 1 and 2 only
- (c) 3 only
- (d) 1, 2 and 3

Answer: (b)

Q. **RNA interference (RNAi) technology** has gained popularity in the last few years. Why? (UPSC 2019)

1. It is used in developing gene silencing therapies.
2. It can be used in developing therapies for the treatment of cancer.

- The advent of CRISPR-Cas9 technology promised a transformative impact on healthcare, particularly in treating conditions like **sickle cell anemia, and in the field of agriculture**.
- This tool has significantly enhanced the resilience of crops by tweaking their genetic makeup to increase resistance to drought and pests.
- Additionally, the technology has been instrumental in developing **novel cancer therapies**, and many specialists anticipate its potential role in eradicating hereditary diseases.



Gene Therapy

- Gene therapy is a treatment that modifies the **genome of specific cells** to treat or prevent a genetic condition or disease.
- There are several ways that gene therapy can be carried out.
- A common method is using a viral delivery system called a viral vector.
- This type of gene therapy delivers a functional copy of a **single gene into the cells of a target organ or tissue**.
- It works by packaging a functional gene into a virus, such as an **adeno-associated virus or a lentivirus**.
- Then the virus delivers the packaged gene into the patient's genome.

Genome Editing

- Genome editing is a **type of gene therapy** that involves making targeted and deliberate changes to a specific region in the genome.
- This could be to **insert, delete, replace or alter a DNA sequence**.
- It can be carried out completely outside of the body in the **laboratory (in vitro)**, within cells to be re-introduced into a **living organism (ex vivo)**, or in the organism itself (in vivo).

3. It can be used to develop hormone replacement therapies.
 4. It can be used to produce crop plants that are resistant to viral pathogens.
- Select the correct answer using the code given below:

- (a) 1, 2 and 4
(b) 2 and 3
(c) 1 and 3
(d) 1 and 4 only

Answer: (a)

Q. What is the Cas9 protein that is often mentioned in the news? (UPSC 2019)

- (a) A molecular scissors used in targeted gene editing
(b) A biosensor used in the accurate detection of pathogens in patients
(c) A gene that makes plants pest-resistant
(d) A herbicidal substance synthesised in genetically modified crops

Answer: (a)

Q. Recombinant DNA technology (Genetic Engineering) allows genes to be transferred: (UPSC 2013)

1. Across different species of plants
2. From animals to plants
3. From microorganisms to higher organisms

Select the correct answer using the codes given below:

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

Gene Therapies for Sickle Cell Disease

The U.S. Food and Drug Administration (FDA) has recently approved **two groundbreaking gene therapies** for the treatment of sickle cell disease (SCD) in **patients aged 12 years and older**. These therapies, named **Casgevy and Lyfgenia**, are the first cell-based gene therapies for SCD, marking a significant advancement in the field.

1. Casgevy

- Casgevy, developed by Vertex Pharmaceuticals and CRISPR Therapeutics, is notable for being the first FDA-approved therapy that utilizes **CRISPR/Cas9**, a novel genome editing technology.
- This therapy works by editing the DNA in a patient's hematopoietic (blood) stem cells using CRISPR/Cas9.
- The modified stem cells, which are transplanted back into the patient, produce increased levels of **fetal hemoglobin**, preventing the sickling of red blood cells.
- Clinical trials have shown promising results, with a significant percentage of patients achieving freedom from severe vaso-occlusive crisis episodes for at least 12 consecutive months during the 24-month follow-up period.

2. Lyfgenia

- Lyfgenia, developed by Bluebird Bio Inc., uses a different approach.
- It employs a lentiviral vector for gene delivery to modify the patient's blood stem cells to produce a gene-therapy derived hemoglobin that functions similarly to normal adult hemoglobin.

- This modification reduces the risk of sickling and obstruction of blood flow in red blood cells.
- Clinical trials for Lyfgenia also reported favorable outcomes, with a majority of patients treated showing complete resolution of vaso-occlusive events within a specified period following infusion.

Both **Casgevy** and **Lyfgenia** require the extraction of the patient's blood stem cells, which are then modified and re-infused back as a one-time treatment. This process is accompanied by myeloablative conditioning (high-dose chemotherapy) to prepare the body for the modified cells.

Significance of the Gene Therapies

- **Innovative Use of Gene-Editing Technology:** Casgevy, is the first FDA-approved therapy utilizing CRISPR/Cas9 gene-editing technology for SCD. CRISPR/Cas9 is a groundbreaking technology that allows for precise modifications to DNA.
- **Targeting the Underlying Cause of SCD:** Both therapies are designed to address the root cause of sickle cell disease. By modifying the patient's own stem cells, these treatments aim to produce healthier red blood cells that are less likely to sickle, which is a major problem in SCD.
- **Potential for Long-Term Benefits:** These therapies are considered a one-time treatment, potentially offering long-term relief from the symptoms and complications of SCD. This is a significant shift from the current standard treatments that primarily manage symptoms.
- **Improvement in Quality of Life:** Clinical trials have shown that these therapies can significantly reduce or eliminate painful vaso-occlusive crises, which are common in SCD and can lead to hospitalizations.
- **Broader Implications for Genetic Diseases:** The approval of these therapies is a milestone in the field of gene therapy and may pave the way for similar treatments for other genetic disorders.

Concerns Regarding Gene Therapies

- **Accessibility and cost:** One of the primary concerns is the accessibility and cost of these treatments. Both therapies are expected to be quite expensive which poses a significant barrier to many patients.
- **Eligibility and availability:** Not everyone with sickle cell disease may be eligible for these therapies. There are also concerns about the limited number of healthcare providers initially offering these treatments, which may restrict access for many patients.
- **Potential adverse effects and Long-Term Outcomes:** Both therapies involve complex processes, including chemotherapy, which can have its own side effects like infertility or secondary cancer.
- **Safety:** Ensuring the safety of gene therapy is paramount. Introducing genetic material into cells can have unforeseen consequences, including immune responses, toxicity, or unintended mutations.
- **Ethical considerations:** Gene editing raises ethical questions, particularly when it comes to germline editing (modifying genes that can be passed to future generations). The potential for designer babies or making irreversible changes in the human genome raises significant ethical concerns.
- **Regulatory challenges:** Developing comprehensive regulatory frameworks to oversee gene therapy research, trials, and commercialization is critical to ensure safety, efficacy, and ethical standards are maintained.
- **Equity Issues:** There is recognition that while these treatments could be transformative, they might not be equally accessible to all, especially considering the majority of sickle cell patients are from marginalized communities.
- **Scientific Differences Between the Therapies:** Casgevy uses CRISPR-based gene editing, a novel approach in treating sickle cell disease, while Lyfgenia uses gene addition via a lentiviral vector. Each has its unique scientific methodology and potential issues.
- **Scepticism:** Experts express caution, preferring to call these therapies transformative rather than cures, as patients will still have sickle cell disease post-treatment.

Conclusion

- The FDA's approval marks a significant advancement in treating sickle cell disease using gene editing technology.
- Despite the promising nature of these therapies, experts advise caution in viewing them as outright cures due to the chronic nature of sickle cell disease and limited data on long-term effects.

INTERNATIONAL RELATIONS

India-ASEAN Set To Review Trade Pact For Modernisation In February

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

News summary:

- India and the ASEAN are set to begin negotiations on modernizing the ASEAN India Trade in Goods Agreement (AITGA) FTA in 2024 to balance the agreement more evenly.
- India has been demanding a review of the FTA by claiming it disproportionately benefited ASEAN.
- India's trade deficit with ASEAN has increased from \$7.5 billion when the pact was implemented to \$43.57 billion in 2022-23.



AITGA

- India and ASEAN signed the **ASEAN-India Trade in Goods Agreement (AITGA)** in August 2009 and implemented it in January 2010.
- Objectives:**
 - Eliminate tariffs
 - Liberalize trade in goods.
 - Facilitate economic integration between ASEAN and India.
- Members:**
 - ASEAN countries** - Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam
 - India
- The steep tariff reductions under the FTA have **encouraged imports from ASEAN to India as Indian consumers have found ASEAN goods to be cheaper.**
- India's imports from ASEAN have been dominated by mineral fuels, followed by animal and vegetable fat, electronic goods, nuclear reactors, plastic, chemicals, ships and boats, gems, and jewelry.
- Following the FTA, India's exports of non-oil and non-mineral products have increased.
- Imports consist mainly of non-oil products like textiles, electronic goods, chemicals, and machinery that are vital to Indian manufacturing.
- India's exports of manufactured goods rose to 39.5% in 2020 as compared to 35.3% in 2010.
- There has also been an increase in the imports of some items placed on the exclusion list by India.

ASEAN

- ASEAN or the Association of South East Asian Nations** is a **regional association of countries that was established to promote social and political stability in the Asia-Pacific region.**
- Formation:** It was established in 1967 under the **Bangkok Declaration** which was signed by Malaysia, Indonesia, the Philippines, Thailand, and Singapore.
- Members:** Brunei Darussalam, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam
- Secretariat:** Jakarta, Indonesia
- Fundamental principles:**
 - Mutual respect for the independence, sovereignty, equality, territorial integrity, and national identity of all nations.**
 - The right of a state to be free from external interference, subversion, or coercion.**
 - Non-interference** in the internal affairs of other members.
 - Peaceful settlement of disputes**
 - Renounce the threat or use of force.**
 - Cooperation among members.**

Objectives:

- Develop a **peaceful and prosperous community of Southeast Asian nations** through economic growth, social progress, and cultural development.

India and ASEAN plan to revamp the ASEAN-India Trade in Goods Agreement due to India's concerns over trade imbalances, focusing on Rules of Origin and trade remedies for mutual benefits.

UPSC Mains Practice Questions

Q.1) Indian Diaspora has an important role to play in South-East Asian countries' economy and society. Appraise the role of the Indian Diaspora in Southeast Asia in this context (GS2-2017).

Q.2) How would the recent phenomena of protectionism and currency manipulations in world trade affect the macroeconomic stability of India? (GS3 2018)

Q.3) 'China is using its economic relations and positive trade surplus as tools to develop potential military power status in Asia', In the light of this statement, discuss its impact on India as her neighbor. (GS2 2017)

MCQs

Question: India is a member of which among the following?

- Asia-Pacific Economic Cooperation (APEC)
- Association of South-East Asian Nations
- East Asia Summit

Which of the above is/are correct? (UPSC CSE 2015)

- 1 and 2 only
- 3 only
- 1, 2 and 3
- India is a member of none of them

Answer: (b)

Question: The term 'Regional Comprehensive Economic Partnership' often appears in the news in the context of the affairs of a group of countries known as (UPSC 2016)

- G20
- ASEAN
- SCO
- SAARC

Answer: (b)

- Abide by the **rule of law, justice, and principles of the UN charter** to ensure regional peace and stability
- Collaborate and assist in **shared interests in economic, social, cultural, technical, scientific, and administrative fields.**
- Collaborate in agriculture, industries, trade expansion, transportation and communications, and improving living standards of people.
- Promote **Southeast Asian studies.**
- Cooperation with existing international and regional organizations.

ASEAN Forums

- **ASEAN Regional Forum (ARF):** It was launched in 1993 to facilitate cooperation on political and security issues to contribute to regional confidence-building and preventive diplomacy.
- **ASEAN Plus Three:** It is a consultative group of the ten ASEAN states, China, Japan, and South Korea that was launched in 1997.
- **East Asia Summit (EAS):** It is a summit for heads of state from ASEAN, Australia, China, India, Japan, New Zealand, Russia, South Korea, and the United States that discusses security and prosperity in the region with ASEAN playing a central role.
- **ASEAN Defence Ministers Meeting (ADMM)-Plus Meeting:** The ADMM-Plus is a platform for ASEAN and its eight Dialogue Partners to strengthen security and defense cooperation for peace, stability, and development in the region.
 - **Dialogue partners:** Australia, China, India, Japan, New Zealand, ROK, Russian Federation, and the United States.

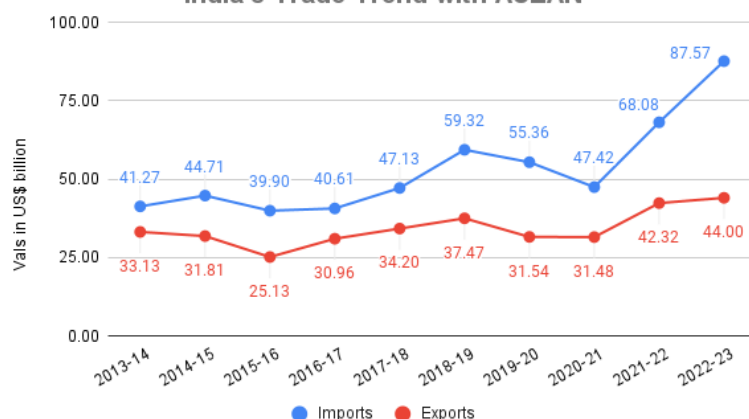
To know more, click the [link](#)

Why has India demanded a review of the trade agreement?

India has claimed that the AITGA has resulted in **disproportionate benefits for the ASEAN** and its member countries.

- **Trade deficit:** India's trade deficit with ASEAN rose to **\$43.57 billion per annum from \$7.5 billion per annum** at the time of implementation of the agreement.
- In 2022-23, India's exports to the ASEAN region were valued at **\$44 billion** while its imports were valued at **\$87.57 billion.**
- In 2021-22, the trade deficit was \$ 25.76 billion.

India's Trade Trend with ASEAN



- **Tariff and non-tariff barriers:** According to the Union Commerce Department, Indian businesses faced difficulties in market access in the ASEAN due to **tariff and non-tariff barriers.**
- Affected sectors include chemicals and alloys, plastics and rubber, minerals, leather, textiles, and gems and jewellery.
- **Modernization:** India has suggested that it was necessary to update the FTA to account for the present dynamics in global trade.
- This would help make trade under the FTA **more facilitative and mutually beneficial.**
- **Limited relationship:** The **limited nature of physical and digital connectivity** between India and ASEAN, despite efforts to improve, has adversely impacted trade, investment, and people-to-people ties.
- **Economic significance:** **ASEAN is a major trade partner for India accounting for 11.3% of India's global trade in 2022-23.**
- India and ASEAN registered a **bilateral trade of \$131.5 billion in 2022-23** compared to **\$57 billion in 2010-11.**
- **Non-reciprocity:** According to India the trade agreement with ASEAN was an "ill-conceived" agreement and unfair to the Indian industry.

- India's exports to ASEAN have been affected due to **non-reciprocity in FTA concessions, non-tariff barriers, import regulations, and quotas.**

How would the FTA be revamped?

- **Rules of Origin (ROO):** Rules of Origin are principles, that help in the determination of tariffs and duties (as well as concessions) depending on the source country of the goods.
- **Product Specific Rules (PSRs) which determine the circumstances in which goods are imported from a member will be introduced in the ROO chapter.**
- Amendment of the Rules of Origin will help **increase market access for Indian products in ASEAN markets.**
- This will also **prevent the re-routing of Chinese goods to India through the ASEAN countries.**
- **Trade remedies:** A chapter on trade remedies will also be added to the new AITGA.
- This will provide a **safety net for domestic industry against unfair trading practices or unforeseen surges in imports of goods.**
- **No expansion:** The modification of the FTA will be focussed on improving efficiency in a mutually beneficial manner.
- Therefore, new areas such as environment, labor, MSMEs, or gender will not be added to the agreement.

What are the challenges in revamping the agreement?

- India will also have to make certain concessions which could complicate negotiations.
- India had previously withdrawn from the **Regional Comprehensive Economic Partnership** which included the ASEAN due to concerns over unfavorable trade balance, dumping of goods, rules of origin, and protection of domestic industry.
- **Focus on bilateral approach:** India has preferred to engage with the ASEAN countries on a **bilateral basis rather than through a multilateral approach.**
- This has led to challenges in coordination and consensus-building since each ASEAN country has its interests and priorities.

Conclusion

- The review of the ASEAN-India Trade in Goods Agreement reflects India's strategic move to address trade imbalances and modernize the pact. The focus on Rules of Origin, trade remedies, and bilateral engagement underscores the commitment to enhance economic integration. However, navigating challenges and ensuring mutual benefits will be crucial for the success of the revamped agreement.

What Is The Universal Declaration Of Human Rights, Which Is Marking Its 75th Anniversary?

SOURCE: INDIAN EXPRESS

PRIORITY: HIGH

Why in the news?

- Recently, the Universal Declaration of Human Rights (UDHR) celebrated its 75th Anniversary on December 12th, 2023.
- The UDHR has served as the foundation for international human rights laws and has been a strong influence on the legal systems of countries across the world.

What is the Universal Declaration of Human Rights?

- The Universal Declaration of Human Rights (UDHR) is a document that outlines the rights and freedoms of all members of the human race.
- It was adopted by the UN General Assembly on December 10th 1948 as per Resolution 217.
- Of the 58 UNGA members at the time, 48 voted in favor, none against, 8 abstained and 2 did not vote.
- It establishes that all humans have the right to life, liberty, and the security of a person while stating that no one would be held in slavery or tortured.
- The UDHR, in combination with the **International Covenant on Civil and Political Rights (ICCPR)** and its two Optional Protocols and the **International Covenant on Economic, Social and Cultural Rights (ICESCR)** and its Optional Protocol, form the **International Bill of Human Rights.**
- **Structure:**
- Its structure was inspired by the Code Napoleon, a set of laws formulated by Napoleon Bonaparte.
- Its final structure evolved in the second draft prepared by French jurist René Cassin while the initial draft was prepared by Canadian legal scholar John Peters Humphrey.

News summary:

The Universal Declaration of Human Rights (UDHR), marking its 75th anniversary, remains a foundational document, shaping global rights, inspiring legal frameworks, and guiding social movements amid contemporary challenges and conflicts.

UPSC Mains Practice Questions

Q.1) Though the Human Rights Commissions have contributed immensely to the protection of human rights in India, yet they have failed to assert themselves against the mighty and powerful. Analyzing their structural and practical limitations, suggest remedial measures. (GS2 2021)

Q.2) "Right of movement and residence throughout the territory of India are freely available to the Indian citizens, but these rights are not absolute." Comment. (GS2 2022)

MCQs

Question: Other than the Fundamental Rights, which of the following parts of the Constitution of India reflect/ reflect the principles and provisions of the Universal Declaration of Human Rights (1948)? (UPSC CSE 2020)



THE UNIVERSAL DECLARATION OF HUMAN RIGHTS

Important provisions

- It consists of a preamble and 30 articles describing the fundamental rights and freedoms of humans.
- **Preamble:** It mentions the social and historical reasons that contributed to the development of the UDHR.
- **Article 1:** It states that all humans are born free and equal in dignity
- **Article 2:** It provides that everyone is entitled to rights and freedoms outlined by the declaration without any distinctions of race, color, sex, language, religion, national or social opinion, property, birth, political or other opinion, etc.
- **Articles 3 – 5:** It deals with individual rights like the right to life and the prohibition of slavery.
- **Articles 6 – 11:** It covers the fundamental rights of humans and remedies in case of their violation.
- **Articles 12 – 17:** These articles outline the rights of the individual to the community such as the right to property, right to nationality, right of free movement, and residence within a state.
- **Articles 18 – 21:** It deals with individual rights such as the freedom of thought, opinion, religion, peaceful association, and expression of ideas through any media.
- **Articles 22 – 27:** These cover the individual's rights to economic, social, and cultural rights including healthcare and higher standard of living.
- **Articles 28 – 30:** It deals with the general means of exercising these rights and the areas in which the rights cannot be applied

Why and how was the UDHR drawn up?

- The UDHR was the result of the “never again” attitude adopted by political leaders in the aftermath of the Holocaust and the two World Wars.
- Therefore, they decided that an additional document on top of the UN charter was necessary to develop a road map guaranteeing the rights of every individual.
- Committee:
 - The formal drafting committee was chaired by Eleanor Roosevelt, the widow of U.S. President Franklin D. Roosevelt.
 - It consisted of members of the Commission on Human Rights from eight countries.
- Over 50 countries participated in the final drafting in 1948, which was approved by the UNGA.
- One of the major challenges faced by the committee was resolving the differences in opinion on human rights between the USA and the Soviet Union.

What did it achieve?

- **Rule of law:** The UDHR is a secular, apolitical document that is not bound by any cultural, religious, or political ideologies.
 - It was the first instrument of international law to use the term “rule of law”.
 - It thus contributed to establishing the principle that all members of society are equally bound by law regardless of the jurisdiction or political system.

1. Preamble
 2. Directive Principles of State Policy
 3. Fundamental Duties
- Select the correct answer using the code given below:

- (a) 1 and 2 only
(b) 2 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

Question: Consider the following :

1. Right to education.
2. Right to equal access to public service.
3. Right to food.

Which of the above is/are Human Right/Human Rights under “Universal Declaration of Human Rights”? (UPSC 2011)

- (a) 1 only
(b) 1 and 2
(c) 3 only
(d) 1, 2 and 3

Answer: (d)

Question: Amnesty International is (UPSC 2015)

- (a) an agency of the United Nations to help refugees of civil wars
(b) a global Human Rights Movement
(c) a non-governmental organization to help people voluntary very poor people
(d) an inter-governmental agency to cater to medical emergencies in war-ravaged regions

Answer: (b)

- **Inspiration for countries:** Although the UDHR was not a treaty or legally binding on member countries, the principles outlined in it have become the basis of international and national legal systems and human rights laws.
- According to the UN, the UDHR and its principles enabled the development of more than 70 human rights treaties at the global and regional levels.
- **Social movements:** The UDHR also influenced freedom fights, decolonization, and anti-apartheid movements across the world.
- The UDHR has also inspired campaigns for gender rights, anti-racism, peace, etc.
- **Universal standard:** The UDHR has become the universal standard for human rights helping to ensure that the fundamental rights of people are respected despite differences in political, cultural, or regional traditions.
- It serves as living proof of the possibility of a global vision for human rights, therefore countries should learn from its successes and failures.
- **Voice to smaller countries:** Although the UDHR was developed during an era in which large parts of the world were subject to colonial rule, it was free of any single influence.
- The participation of smaller nations helped ensure that it provided human rights to all without distinction.
- **Follow-up agreements:**
- International Bill of Human Rights which was completed in 1966 and came into force in 1976.
- Vienna Declaration and Program of Action of 1993.
- **World Human Rights Day:** In honor of the passing of the UDHR, December 10th has been celebrated every year as World Human Rights Day or International Human Rights Day.

Challenges

- **Geopolitical conflicts and wars:** The rise in geopolitical conflicts such as the Israel-Palestine crisis, Russia's invasion of Ukraine, and internal ethnic conflicts in Myanmar and Sudan have impacted the human rights outlined in the UDHR.
- **Misuse and abuse:** According to U.N. Secretary-General Antonio Guterres, the UDHR has been misused and abused for political gain.
- He raised the issue of the UDHR also being ignored by people in political power, affecting the rights of the common person.
- For example, the U.N. Human Rights Council has been criticized for the poor human rights records of its member countries.

Conclusion

In its 75th year, the Universal Declaration of Human Rights (UDHR) remains a pivotal force, shaping global human rights. Despite challenges from conflicts and misuse, it serves as a beacon, inspiring legal frameworks and social movements worldwide.

How India Can Become The Bank For The Global South

SOURCE: INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- This article discusses India's role as a bank for the global south amid an opportunity for India to take advantage of stagnation in Europe and the internal problems faced by the USA and China.
- India can take advantage of the lessons from 2023, where it served as host of the G20, and use its GDP of \$3.7 trillion, supported by its people, companies, and state apparatus to reshape the global order.

What is the opportunity before India?

- **India's economy which has neared \$4 trillion in size has the potential to exert a large influence on the world.**
- India can establish a position for itself alongside larger economies like the USA, EU, and China.
- According to experts, **India is faced with an opportunity for growth as external conditions are conducive to growth.**
- **Europe has stagnated while the USA and China have turned inward to deal with their economic crises.**
- **Similarly, China has been faced with a shrinking of its share in the global economy in nominal terms**
- India must use this opportunity to demonstrate its potential and the additionality that it could provide for global growth, institutions, and security.

News summary:

India aims to become a financial stronghold for the Global South by leveraging its economy, emulating China's trajectory, fostering global alliances, addressing inefficiencies, and coordinating domestic infrastructure through Gati Shakti.

UPSC Mains Practice Questions

Q.1) Do you agree with the view that steady GDP growth and low inflation have left the Indian economy in good shape? Give reasons in support of your arguments. (UPSC GS3 2019)

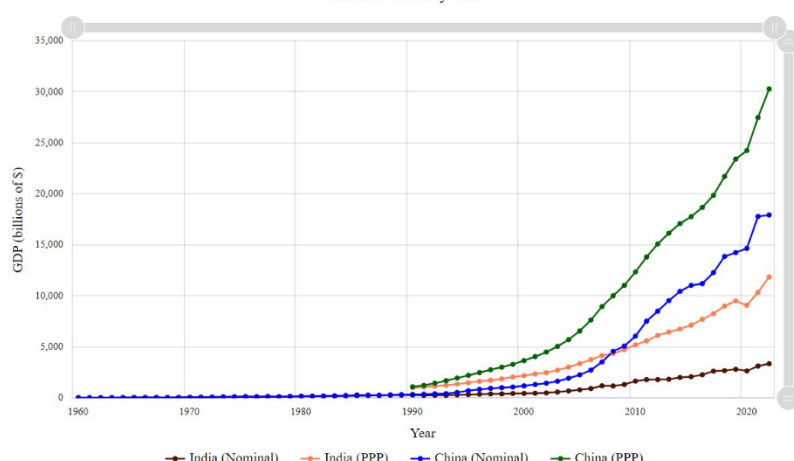
MCQs

Question: Consider the following statement:

Statement – I: India accounts for 3.2% of global export of goods.

Statement-II: Many local companies and some foreign companies operating in India have taken advantage of India's 'Production-linked Incentive' scheme.

India vs China by GDP



Case study: China

- Fifteen years ago, China was in a similar position to what India is presently in.
- **In 2007, China was not the economic powerhouse it is today with a GDP of \$3.6 trillion.**
- **In comparison, India's present GDP is around \$3.7 trillion.**
- China offered its partners a full-fledged framework for growth that attracted global partners to participate in its system, allowing it to establish itself as a major global financial power.
- **China established a future-focused architecture system that proved to its partners that its \$4 trillion economy could compete with other economies as large as \$15 trillion.**
- **Despite having a GDP lower than India's present GDP, China emerged as the go-to nation during the global financial crisis of 2008.**
- Countries adopted a special diplomatic approach towards China and deepened bilateral relations.
- China provided institutional and geoeconomic responses to the major crises faced by countries during the crisis:
 - **A development bank**
 - **A cross-continental lending programme**
- This helped China galvanize the growth of infrastructure projects without the constraints of Western agencies.
- This series of economic projects eventually evolved into the present **Belt and Road Initiative**.
- **China leveraged its economic promise in 2008 to establish an oversized economic and political influence, from which it continues to benefit.**
- It offered a vital additionality to the global order in the form of guaranteed stability and economic dynamism.
- It was aided by global conditions in which the US was struggling to recover from the crisis and the Eurozone was impacted by demands for withdrawal.
- As a result, **China was welcomed by the world as an additional centre of geopolitical power and source of investment that helped fulfill its need for an additional engine of growth.**

Similarities and Differences - India and China (2007)

Similarities	Differences
Labour Force: • In 2007, 41% of China's labor force was in agriculture, 27% in industry, and 32% in services. • In 2021, 44% of India's labor force was in agriculture, 25% in industry, and 31% in services. ○ However, it must be noted that the actual number of people varied despite similarities in percentage. • While the rate of decline of the labor force in agriculture between 2003 and 2019 was 1.5% in China, it was around 1% in India. • The bulk of jobs in India have been created in sectors such as construction and services.	Growth • Between 2007 and 2021, the Chinese economy grew at 8% pa on average while the Indian economy grew at 6% pa. Investment Ratios • China's investment-to-GDP ratio has been consistently high, averaging around 40% (2003 to 2011). • India's investment ratio during its high growth phase was around 33%, lower than China's. ○ This means that the allocation of a large share of its economic resources to investment has contributed to China's economic growth.

Which one of the following is correct in respect of the above statements?

[2023]

- (a) Both statement-I and Statement II are correct and Statement II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect.
- (d) Statement--I- is incorrect but Statement-II is correct.

Answer: (d)

Question: If another global financial crisis happens in the near future, which of the following actions/policies are most likely to give some immunity to India?

1. Not depending on short-term foreign borrowings
2. Opening up to more foreign banks
3. Maintaining full capital account convertibility

Select the correct answer using the code given below : (2020)

- (a) 1 only
- (b) 1 and 2 only
- (c) 3 only
- (d) 1, 2 and 3

Answer:(a)

- However, as formal manufacturing is twice as productive as transport, 2.5 times more productive than trade, and 3.75 times more productive than construction, the lack of employment generation in this sector is a major challenge for India.

- From 2012 to 2021, the gap widened with China's investment ratio of 43% while India's fell to around 29%.
- The slowdown has been attributed to the twin deficit problem (Current Account Deficit and Fiscal Deficit).

Exports and Imports:

- In FY 2022-23, India's exports of goods and services reached over \$ 770 billion, while imports were around USD 890 billion.
- In 2007, China's exports exceeded \$1.2 trillion, driven by the export of goods.
- Chinese imports were at \$950 billion.
- The higher import and export values indicate that China had attained a greater level of integration with the global economy in 2007.
- Between 2007 and 2021, China's exports accounted for 24% of GDP, while India's exports averaged 21% of GDP.

Tariffs:

- From 2003 to 2007, China's average tariff rate decreased from 10.69% to 8.93% and 5.32% by 2020.
- This facilitated China's integration into global trade, attracted foreign investments, and helped China position itself as a central hub for global supply chains.
- India's tariff rate dropped from 25.63% (2003) to 8.88% (2017).
- Since then, India's tariff rate has been increasing, which may impact its ability to attract investment and integrate into global supply chains.

Labour Force Participation:

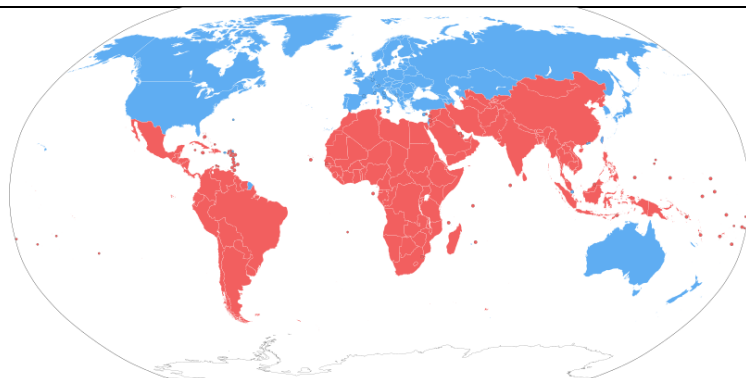
- In 2007, China's labor force participation rate was almost 73% but has declined to around 67% at present.
- India's labor force participation rate was around 50% in 2022.

Participation of Women

- In China, the female labor force participation rate was 66% in 2007 (declined to 61% in 2022).
- In India, female participation which was 30% in 2007 has further dropped to 24% in 2022.

Global South

- The **Global South** is a term used to refer to countries that are characterized as **developing, less developed, or underdeveloped**.
- They are primarily located in **Africa, Asia, and Latin America** and have higher levels of poverty, income inequality, and challenging living conditions compared to the Global North.
- The **Brandt Line**, an imaginary line proposed by Willy Brandt in the 1980s, has been used to demarcate the countries of the Global North and South.
- It indicates the socio-economic divide between the countries of the north and south.



India's association with the Global South

- **Non Alignment Movement:** India was one of the founding members of the **Non-Alignment Movement (NAM)** which aimed to represent the political and socio-economic concerns of the Global South.
- **G-77:** India played a key role in the establishment of the G-77 coalition.
 - The **G-77 is a coalition of 134 countries that aimed to present a unified voice for the Global South at the UN and its bodies.**
- **Stockholm Conference:** In 1972, India voiced the concerns of the Global South regarding climate change and helped evolve key principles of modern climate change policy such as **Common but Differentiated Responsibilities, Polluter Pays**, etc.
- However, Indian foreign policy has become more pragmatic in the post-Cold War. India has prioritized its economic and security interests over global equity amid geopolitical and economic concerns (the 1990s).
 - This is evident in India's outreach to the countries of the Global North and strengthened partnerships in multilateral fora such as the **G-20**, and **QUAD**.

How can India become the Bank of the Global South?

- China's growth has proved that India will not have to demonstrate extraordinariness.
- **India's trajectory and motives are well suited to the green and digital future with its platform economy offering it a foundation to establish itself as a world leader.**
- The additionality that India offers must have attributes that attract its potential partners.
- India will have to establish a new cooperation architecture that will accommodate the country's increased spending.
 - The Indian private sector has been mobilizing to support connectivity, supply chains, and resource resilience across the world.
 - This will be accompanied by the growth of public development finance, at a faster rate than the Indian economy.
- **India will emerge as a new source of development finance even if it grows at just 10% per annum (in current dollars), which was below its recent benchmarks.**
 - **If India's development cooperation budget was raised to less than 0.5% of its GDP by 2030, around \$70 billion of funds would have to be put into the global system.**
- India would need to provide a unique roadmap that can support its finance offerings. This requires
 - An outward-focused development finance corporation that can catalyze global projects.
 - A bank, similar to the China Development Bank, to focus on global corporate requirements outside of trade finance.
- This would transform India, which was already the voice of the Global South, into the bank of the Global South.

Steps taken by India to become the Voice of the Global South

- **New Delhi Declaration:** India hosted the **G-20 meeting in 2023** where it reiterated its position as the **voice of the Global South**.
 - India helped achieve a consensus on major concerns of the South such as debt financing, gender equality, and climate justice, leading to the development of the **New Delhi Declaration**.
 - India also hosted **Voice of the Global South Summits** to foster solidarity among the countries.
- **Multilateral inclusivity:** India has highlighted the need for greater recognition of the Global South by driving the **expansion of the G-20** under its presidency.
 - The **African Union** was included as a member of the G-20 in the 2023 Session.
 - India has also worked towards expanding membership of the Global South in other multilateral fora like BRICS, where 6 new countries were included to form **BRICS PLUS**.
- **Vaccine diplomacy:** India displayed its commitment to the Global South through its **Vaccine Maitri scheme** which supplied free vaccines, drugs, and medical supplies during the Covid-19 pandemic.

- **Climate change:** India has regularly called on the Global North to undertake reductions in emissions to achieve net zero before set deadlines.
- India has also highlighted their historical contributions and the the significant developmental advantages gained by them and stated that the Global South can not be forced to pay for this at the cost of their development.
- India also played a key role in the establishment of the **Loss and Damage Fund at COP28, UAE.**

Challenges faced

- **Discord within the Global South:** India's ambitions of acquiring a **permanent seat at the UNSC** have been opposed by the **Coffee Club**, which includes countries from the Global South.
- India has been accused of **prioritizing its ties with the Global North and not engaging regularly with the South** which has led to a disruption in communication and cooperation between the Global South.
- **Inefficiencies:** Global South countries have highlighted **India's incapacity to deliver on development projects** within agreed time frames as a challenge.
- For example, the **Kaladan Project with Myanmar** which has been delayed multiple times and is now expected to be completed by 2024.
- **Competition with China:** China, with its greater economic strength, has been providing financial and developmental assistance to the Global South to emerge as its leader.
- **Big Brother Attitude:** One of the major criticisms leveled against India by its partners in the Global South has been its **"Big Brotherly attitude" and alleged interference in domestic affairs.**
- This has resulted in public protests against India in countries like Maldives (**India Out Campaign**).

Gati Shakti

- The government of India has demonstrated a similar initiative at the domestic level.
- The **Gati Shakti initiative aims** to link disparate infrastructure projects through a common vision.
- It was launched in October 2021 to coordinate infrastructure project planning and execution while reducing logistics costs.
- **Aim:** It aims to improve economic growth and sustainable development by focusing on infrastructure such as roads, railways, airports, ports, mass transport, waterways, and logistics.
- In the Union Budget 2023, the budget for the PM Gati Shakti National Master Plan was increased by the Union government.
- **Six pillars**
 - Comprehensiveness
 - Prioritization
 - Optimization
 - Synchronization
 - Analytical
 - Dynamic Approach

Key features:

- **Integrated Planning:** It is a digital platform that connects development projects across 16 ministries, including railways and roads, enabling integrated planning and implementation.
- This allows for swift, efficient, and coordinated decision-making.
- **Cross-sectoral Interactions:** The collaboration between the various ministries involved in the project helps optimize resource allocation by prioritizing necessary projects and avoiding overlapping.
- **Infrastructure Integration:** It integrates infrastructure schemes from various ministries and state governments to promote last-mile connectivity and reduce logistics costs.
- For example, the Bharatmala, Sagarmala, inland waterways connectivity projects.
- **Enhanced Visibility:** PM Gati Shakti utilizes a repository of geospatial data for better planning and decision-making.
- **Project Monitoring:** A specialized group under the Department of Promotion of Industry and Internal Trade (DPIIT) has been empowered to oversee the progress of key projects in real time.
- They will solve any issues such as inter-ministerial differences and ensure smooth implementation of projects.

The way forward

- India would need to adopt an approach to external engagement with like-minded partners that allows it to develop priority infrastructure, connectivity routes, business and trading hubs, and developmental projects.

- To do so India will have to identify the critical sectors and domains where it can establish its vision for its role in the world.
- Moreover, India must shed its big brotherly attitude and revive its interaction with the countries of the Global South through bilateral and multilateral fora.

What Is Article 99 Of The UN Charter, Invoked For The First Time In Decades As Israel Attacks Gaza?

SOURCE: INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- Recently, the UN Secretary-General, Antonio Guterres, invoked Article 99 of the UN Charter to establish a ceasefire in Gaza.
- According to reports, thousands of people including women and children have been killed and more than a million people displaced in Gaza since the hostilities began in October 2023.
- The Secretary-General has repeatedly condemned the October 7 Hamas attacks that led to the deaths of more than 1,200 people, and called for the release of more than 130 people still held captive.



What is Article 99 of the UN Charter?

- **Article 99 of the UN Charter** is related to the power of the UN Secretary-General to raise issues before the UN Security Council when necessary.
- It states that the **Secretary-General may bring any matter to the attention of the Council which in the opinion of the Secretary-General may threaten the maintenance of international peace and security.**
- It is a **discretionary power** granted to the Secretary-General by the Charter.
- As per a report of the **Preparatory Commission of the United Nations (1945)**,
 - The Secretary-General must employ **political judgment, tact, and integrity** when exercising their highest responsibilities under Article 99.
- **When a matter is brought to the attention of the Council by the Secretary-General under Article 99, the President of the Security Council is obliged to call a meeting of the Council.**
- Article 99 has been invoked very rarely over the years as it has been treated as a move of last resort.
- **Previous instances of invocation of Article 99:**
 - Upheaval in the Republic of the Congo in 1960 post-Belgian colonial rule
 - Complaint by Tunisia in 1961 against an attack by French naval and air forces.

UN Charter

- The **Charter of the United Nations is the founding document of the United Nations.**
- It was signed on 26 June 1945, in San Francisco, at the conclusion of the **United Nations Conference on International Organization.**
- The Charter came into force on 24 October 1945.
- It codifies the major principles of international relations, from sovereign equality of States to the prohibition of the use of force in international relations.
- It has been **amended five times since 1945.**
- The Charter consists of a preamble and 111 articles grouped into 19 chapters
 - The preamble consists of two principal parts.
 - The first part contains a general call for the maintenance of peace and international security and respect for human rights.
 - The second part of the preamble is a declaration in a contractual style that the governments of the peoples of the United Nations have agreed to the Charter.

UN Secretary-General

News summary:

The recent invocation of Article 99 of the UN Charter by the Secretary General to establish ceasefire in Gaza amid increasing casualties highlighted the need for humanitarian assistance and a lasting solution to the conflict.

UPSC Mains Practice Questions

Q.1) Discuss the impediments India is facing in its pursuit of a permanent seat in the UN Security Council. (UPSC GS2 2015)

MCQs

Question: The Security Council of the UN consists of 5 permanent members, and the remaining 10 members are elected by the General Assembly for a term of (UPSC CSE 2009)

- (a) 1 year
- (b) 2 years
- (c) 3 years
- (d) 5 years

Answer: (b)

Question: The term "two-state solution" is sometimes mentioned in the news in the context of the affairs of (UPSC CSE 2018)

- a. China
- b. Israel
- c. Iraq
- d. Yemen

Answer: (b)

- According to the UN Charter, the **Secretary-General is the chief administrative officer of the UN.**
- **Mandate:** Act and perform those functions assigned by the UN Security Council, General Assembly, Economic and Social Council and other United Nations organs.
- **Selection procedure:**
 - The UN Secretary-General is **appointed by the UN General Assembly on the recommendation of the UN Security Council.**
 - A candidate must receive the votes of at least 9 members of the United Nations Security Council, with no vetoes from permanent members.
- **Term:**
 - The Secretary-General serves a **five-year term.**
 - Although, there is no explicit limit to the number of five-year terms no one has held office for more than two terms.
- **Functions:**
 - Attend sessions of UN bodies
 - Consult with world leaders and government officials
 - Travel worldwide to keep in touch with the peoples of the UN member states.

How has it been invoked?

- Guterres wrote to the Security Council under Article 99 to raise the matter of the **situation in Gaza as it might aggravate existing threats to the maintenance of international peace and security.**
- He cited the appalling human suffering, physical destruction, and collective trauma that has taken place across **Israel and the Occupied Palestine Territory.**
- **More than 15,000 people have been killed since the beginning of Israel's military operations with 40% of the victims being children.**
- The hostilities had led to the **collapse of the healthcare system**, compromising the ability to provide humanitarian relief, and worsening the displacement challenge.
- As a result of the constant bombardment of the region by the Israel Defense Forces, no part of Gaza was safe for civilians.
- He urged the Security Council to exert the influence and power on all parties to ensure that a humanitarian catastrophe could be averted.
- He reiterated his appeal for an **urgent humanitarian ceasefire** to spare the civilian population from further harm.
- The ceasefire was essential to restore the means of survival for residents and ensure that humanitarian assistance can be delivered in a safe and timely manner.

Humanitarian crisis in Israel

- The Israeli bombardment of Gaza in response to **Operation Toofan-Al Aqsa** has resulted in over 10,000 deaths over 40% of which are children.
- **Displacement:** The **U.N. Office for the Coordination of Humanitarian Affairs** claimed that **over 70% of Gaza's population has already fled their homes.**
- Those fleeing consisted of mainly children, the elderly, and people with disabilities.
- **Casualties:** Attacks by Israel on targets within Gaza have destroyed or damaged 45% of all housing units in the Gaza Strip, internally displaced about 1.5 million people, and killed over 10,000 people, including over 80 UN staff.
- More than 2,300 people – among them 1300 children are reported missing, most of them likely trapped under the rubble.

To learn more click the [link](#).

What impact could it have on the conflict?

- The **UAE submitted a draft resolution** based on the Secretary General's letter demanding an immediate humanitarian ceasefire to the Gaza conflict.
- According to diplomats, the UAE aimed to put the text to a vote when the council was briefed by Guterres on Gaza.
- For the resolution to be adopted, it must receive at least nine votes in favor and no vetoes by any of the five permanent members.
- However, this is unlikely as the US and Britain, both UNSC permanent members, have expressed support for Israel's military actions since October 7.

Other resolutions related to the conflict

- In October 2023, the UNSC failed to pass four resolutions related to allowing humanitarian access to the Gaza Strip amid the conflict.
- The **U.S.A. had proposed a resolution that would have affirmed the right of member states to defend themselves against threats to peace and security posed by acts of terrorism.**
- However, it was **vetoed by Russia and China.**
- Two resolutions proposed by Russia could not gather enough votes in favor while the **Brazil-drafted resolution to allow access to the Gaza Strip for aid was vetoed by the U.S.A.**

- In November 2023, the UN Security Council recommended an urgent and extended humanitarian pause and the creation of humanitarian corridors in the Gaza Strip.
- It called for all stakeholders to ensure immediate, rapid, and safe humanitarian access to the region consistent with international humanitarian law.
- It stated that UN humanitarian agencies and their implementing partners must be allowed to facilitate the continuous, sufficient, and unhindered provision of essential goods and services in the Gaza Strip.
- It also called for the unconditional and immediate release of all hostages, including children, held by Hamas and other groups.

UNSC



UNSC Security Council

- The **United Nations Security Council (UNSC)** is one of the six main organs of the United Nations.
- It was established in 1945 under the **United Nations Charter**.
- The UNSC is the **only UN body that is authorized to issue binding resolutions to member states**.
- **Membership:** The UNSC consists of 15 members - 5 permanent members and 10 non-permanent members.
 - **Permanent members:** China, France, Russia, the United Kingdom, and the United States.
 - **Non-permanent members:** Albania, Brazil, Ecuador, Gabon, Ghana, Japan, Malta, Mozambique, Switzerland, and the United Arab Emirates.
 - The General Assembly elects five non-permanent members every year.
 - The ten non-permanent seats are distributed on a regional basis and serve for **two-year terms**.
- **Presidency:** The Presidency of the UNSC among the 15 members on a monthly basis.
 - **Ecuador is President of the UNSC for December 2023.**
- **Voting Powers:**
 - Each member of the Security Council has one vote.
 - The Council's decisions are made by an affirmative vote of nine members including the concurring votes of the permanent members.
 - **Veto:** A "No" vote from one of the five permanent members blocks the passage of the resolution.
- **Headquarters:** The UNSC is headquartered in New York.
- **Role:** The UNSC's role in international collective security is defined by the UN Charter.
 - Investigate any situation that threatens international peace;
 - Advise procedures for peaceful resolution of a dispute;
 - Call on other member nations to disrupt economic relations and communications.
 - Deploy UN peacekeeping missions and impose sanctions on states
 - It can cut diplomatic relations, and impose financial restrictions, penalties, blockades, and collective military action.
- **Challenges:**
 - **Absence of Records and Texts of Meetings:** No records or texts of the UNSC's meetings are maintained.
 - **Veto powers:** The veto powers enjoyed by the five permanent members are a constraint in understanding the international changes and dynamics in the area of human security and peace.
 - **Polarisation and rivalries:** Tensions between the members of the UNSC on various issues have led to inaction on some decisions of the UNSC.
 - **Underrepresentation:** The UNSC has been criticized for not being a fair reflection of the present geo political situation. Major countries such as India, Germany, Brazil, etc are not permanent members despite playing a significant role in global issues.

Conclusion

The invocation of Article 99 by UN Secretary-General Antonio Guterres underscores the urgency of addressing the humanitarian crisis in Gaza. The potential impact on the conflict remains uncertain, with diplomatic efforts and proposed resolutions facing challenges, emphasizing the complex nature of the situation.

Bridge This Deficit Between India And Sri Lanka

SOURCE: THE HINDU

PRIORITY: MEDIUM

Why in the news?

- Recently, Sri Lankan President Ranil Wickremesinghe announced a proposal to establish land connectivity between India and Sri Lanka with the goal of regional integration.
- The article also discusses other aspects of the bilateral relationship such as energy and trade.
- India has recently become the largest source of imports and tourists to Sri Lanka.



What was the proposal for regional connectivity?

- In 2003, then Prime Minister and present President of Sri Lanka, Ranil Wickremesinghe proposed to build a **bridge linking Rameswaram in Tamil Nadu with Talaimanar in the Northern Province of Sri Lanka**.
- The proposal was part of a larger vision of **regional economic integration** encompassing his country and the southern States of India and aimed at generating more opportunities for economic growth.
- The project was mentioned in a joint statement, as per which a feasibility study would be conducted, following the meeting between the Sri Lankan President and the Indian Prime Minister in New Delhi in July 2023.
- Mr. Wickremesinghe, who also holds the Finance Portfolio, claimed that the connectivity project would help Sri Lankan ports meet the supply needs of India's south coasts.
- Colombo port would meet the supply requirements of South West India**
- Trincomalee port would meet the supply needs of South East India.**

Opposition

- However, the project has faced **opposition from Sinhalese-Buddhist groups** who claimed that the project would not be beneficial for Sri Lanka.
- In December 2015, Sri Lanka adopted a muted response to a statement by the Union Minister of Road Transport and Highways in the Lok Sabha about the **Asian Development Bank's** willingness to fund the project.
- The project was estimated to cost around ₹24,000 crores and was strongly opposed by critics.

What was the proposed power grid project between India and Sri Lanka?

- In 1970, a proposal was launched to connect the electricity networks of the two countries.
- In 2010, India and Sri Lanka signed a memorandum of understanding on the bilateral grid.
- However, the project has still not been implemented successfully.
- Sri Lanka and Bangladesh also signed a memorandum of understanding with India in 2010 for collaboration in the power sector.
- Projects involving Indian participation in the energy sector, particularly renewable energy are being taken up in the island nation.

News summary:

Sri Lanka proposed a land bridge with India, aiming at regional integration. Challenges persist due to opposition, stalled power projects, while trade and defense collaborations remain, despite issues like fisheries and Chinese influence.

UPSC Mains Practice Questions

Q.1 India is an age-old friend of Sri Lanka.' Discuss India's role in the recent crisis in Sri Lanka in light of the preceding statement. (UPSC GS2 2022)

Q.2 In respect of India — Sri Lanka relations, discuss how domestic factors influence foreign policy. (UPSC GS2 2013)

MCQs

Question: Consider the following statements: (UPSC 2020)

- The value of Indo-Sri Lanka trade has consistently increased in the last decade.
- "Textile and textile articles" constitute an important item of the trade between India and Bangladesh.
- In the last five years, Nepal has been the largest trading partner of India in South Asia.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 only
- 3 only
- 1, 2 and 3

Answer: (b)

- The **transmission network project** which aims to transfer **1,000 MW** and the **High Voltage Direct Current overhead link between Madurai (India) and New Habarana (Sri Lanka)** has not been properly implemented.
- If the facility had been in place in 2022, Sri Lanka would not have suffered power cuts and blackouts during the economic crisis.
- The success of the project could help India obtain cheaper power from Sri Lanka and ensure the deadline of 2030 (**Sri Lanka aims to generate 70% of its electricity requirements from renewable sources by 2030 and attain independence in power supply by 2050.**)
- **Challenges:** Sri Lanka has had to recover from the 25-year-long protracted civil war in the country, which has proved to be the major factor prohibiting developmental activities.

Comparison with Bangladesh

- **India has been exporting at least 7,000 million units (MU) per annum to Bangladesh for the last couple of years.**
- Earlier this year, PM Narendra Modi and PM Sheikh Hasina jointly commissioned the second unit of the **Rampal Maitree Power Project (660 megawatts)** and launched two other infrastructure projects.

Trade between India and Sri Lanka

- **In December 1998, India and Sri Lanka signed the India-Sri Lanka Free Trade Agreement.**
- Negotiations resumed in December 2023 as the two countries have not been able to advance further despite holding talks regularly.
- Bilateral economic ties between the two countries have improved in recent years.
- **In 2022, India regained its status as the largest source of imports to Sri Lanka (26% of the total imports).**
- However, certain imports were through credit lines offered by India in the wake of the economic crisis.
- **India is also the largest single source of tourist arrivals to Sri Lanka with over 17% of the overall number of arrivals.**
- However, experts claim that there is a much greater potential for bilateral trade between India and Sri Lanka.
- In comparison, India's bilateral trade with Bangladesh has been much more robust.
- **India-Sri Lanka bilateral trade in 2021 was \$5.45 billion while bilateral trade between India and Bangladesh was \$18.14 billion in the same period.**

India-Sri Lanka relations

- Sri Lanka is located just off the southern coast of India and is separated from India by the **Palk Strait**.

Historical ties

- India and Sri Lanka have a long history of cultural, religious, and trade ties dating back to ancient times.
- The two countries share a strong cultural relationship based on people-to-people ties and the common cultural link of Buddhism.

Economic

- **India is Sri Lanka's largest trading partner accounting for 16% of Sri Lanka's total global trade and overall bilateral merchandise trade of US\$ 5.45 billion in 2021.**
- **India is Sri Lanka's third largest export destination, after the US and UK.**
- The **India-Sri Lanka Free Trade Agreement (ISFTA)** provides duty-free access and duty preferences for goods was signed in 1998 and came into force in 2000.

To know more about India's economic assistance to Sri Lanka, click the [link](#).

Defense

- **Mitra Shakti:** A Joint military exercise
- **SLINEX:** India-Sri Lanka bilateral naval exercise.
- **Colombo Security Conclave:** A maritime military grouping of India, Sri Lanka, Maldives, and Mauritius

Multilateral groupings

- Sri Lanka is also a member of groupings like **BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)** and **SAARC (South Asian Association for Regional Cooperation)** in which India plays a leading role.

Challenges in India-Sri Lanka ties

- **Fisheries:** India has raised concerns about the arrests and killings of Indian fishermen by the Sri Lankan Navy.
- **Fishing rights in the Palk Strait and the Gulf of Mannar are a major issue for both countries.**
- **China's influence:** China's rapidly growing economic and political influence is a major concern for India.

- China is one of the largest investors in Sri Lanka and holds a stake in critical infrastructure like the **Hambantota port**.
- The **Chinese debt trap** which played a big role in the Sri Lankan economic crisis is another of India's concerns.
- Moreover, Chinese vessels have docked in Sri Lanka despite India's opposition due to **concerns over Chinese expansionism in the Indian Ocean Region (IOR)** which is a strategically important waterway for India's trade and security operations.
- **Border security:** The maritime boundary between India and Sri Lanka has been quite porous with rampant smuggling of narcotics, immigrants, and other illegal substances.
- **Tamil Ethnic Issue:** The ethnic conflict in Sri Lanka and the rights of the Tamil minority are major political issues in India.

Way forward

- Sri Lanka must emulate Bangladesh's example in building a mutually beneficial relationship with India despite the presence of anti-Indian nationalist forces in the political class.
- Recent developments in the India-Sri Lanka relationship should be sustained and improved upon. These include the
 - resumption of air services between Chennai and Jaffna
 - launch of passenger ferry services between Nagapattinam and Kankesanthurai
 - joint venture agreement between India's National Dairy Development Board, the Gujarat Cooperative Milk Marketing Federation, and Cargills of Sri Lanka for self-sufficiency in the dairy sector.
- A strong relationship with India would help Sri Lanka ensure that its economy can return to a high standard of living and stability.

The Melody in India-Italy Ties

PRIMARY SOURCE: THE INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- The article discusses the evolving dynamics of India-Italy relations with significant growth in bilateral trade, Italian investment in India, and potential defense partnerships.

India-Italy – Historical Ties

- **Historical Links:** India and Italy have ancient civilizational links dating back over 2,000 years.
- **Trade Routes:** Italian port cities were crucial in the spice trade routes.
- **Marco Polo's Travels:** The Venetian merchant Marco Polo traveled to India in the 13th century, documenting his experiences.
- **Rabindranath Tagore's Visit:** In 1926, Rabindranath Tagore, the Nobel Laureate from India, visited Italy, with arrangements made by Carlo Formichi, a Sanskrit professor in Rome.
- **Mahatma Gandhi's Visit:** Mahatma Gandhi visited Rome in 1931, and Indian freedom struggle leaders were influenced by Italian revolutionary Mazzini.
- **World War II:** Indian troops, part of the British Indian Army, were deployed in Italy, opposing German and Mussolini's forces.
- **Establishment of Relations:** Political ties were established in 1947, with regular exchanges of visits at various levels, including heads of state.

Setbacks in India-Italy Relations

The Italian Marines Case (2012)

- This incident significantly strained the bilateral relations between India and Italy.
- Two Italian marines, Salvatore Girone and Massimiliano Latorre, were accused of killing two Indian fishermen off the coast of Kerala in 2012.
- The marines were on duty on the Italian oil tanker MV Enrica Lexie and claimed they mistook the fishermen for pirates.
- This case led to a diplomatic standoff, with the marines being held in India and a protracted legal battle that extended to the Permanent Court of Arbitration in Hague.
- The case was eventually settled in 2021 after Italy paid compensation to India.

AgustaWestland Allegations (2011-2012)

- Another major setback was the corruption allegations related to the AgustaWestland helicopter deal.
- An investigation into Finmeccanica, the parent company of AgustaWestland, for unethical dealings included a probe into a helicopter deal with India.
- The contract, signed in 2010 to supply 12 AW-101 helicopters to the Indian Air Force, was mired in allegations of corruption, leading to political turmoil in India.
- The contract was eventually cancelled, and legal proceedings ensued.
- Italian courts dismissed the charges due to insufficient evidence, but the episode had already damaged the bilateral relations.

Efforts to Repair and Strengthen India-Italy Relationship

News summary:

India-Italy relations have evolved from historical ties to strategic collaboration, overcoming setbacks while strengthening economic and defense partnerships with greater alignment on geopolitical issues.

MCQs

Q. Consider the following statements: (UPSC 2023)

The 'Stability and Growth Pact' of the European Union is a treaty that

1. Limits the levels of budgetary deficit of the countries of the European Union.
2. Makes the countries of the European Union to share their infrastructure facilities.
3. Enables the countries of the European Union to share their technologies.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a)

Q. 'European Stability Mechanism', sometimes seen in the news, is an (UPSC 2016)

- (a) agency created by EU to deal with the impact of millions of refugees arriving from Middle East
- (b) agency of EU that provides financial assistance to eurozone countries
- (c) agency of EU to deal with all the bilateral and multilateral agreements on trade

- **Diplomatic Engagements and Visits:** There has been a consistent exchange of high-level visits. This includes the visit of the External Affairs Minister Sushma Swaraj to Italy in 2016, EAM S Jaishankar's visit in 2019, and PM Modi's visit in 2021.
- **Virtual Summit and Action Plan:** The Virtual Summit co-chaired by PM Modi and then Italian PM Conte in November 2020 was pivotal. The adoption of the **2020-2025 Action Plan** set an ambitious agenda for enhanced partnership.
- **State Visit by PM Meloni:** PM Meloni's visit to India in March 2023 marked a significant step in reinforcing bilateral ties. This visit focused on various areas such as green economy, energy security, defense co-production, and the blue economy.
- **Strategic Partnership and Startup Bridge:** The elevation of bilateral relations to the level of Strategic Partnership and the establishment of a startup bridge between Indian and Italian companies during PM Meloni's visit were major outcomes strengthening economic and technological collaboration.
- **Defense Sector Engagement:** Italy's expressed interest in rebooting defense relations with India, as evidenced by the visits of high-ranking military officials and participation in defense shows, indicates a significant area of collaboration.
- **Maritime Security Cooperation:** Italy's involvement in the **Information Fusion Center–Indian Ocean Region (IFC-IOR)** enhances maritime security cooperation, reflecting a shared interest in regional stability.
- **Rethink on China's Belt and Road Initiative (BRI):** Italy's shift in stance regarding the BRI, moving away from it, aligns with India's concerns about the initiative. This common ground on geopolitical issues adds a strategic dimension to their ties.
- **Economic and Trade Growth:** The increase in bilateral trade and the presence of over 600 Italian companies in India signify growing economic engagement. This economic interdependence is a vital component of their strengthened relationship.

Significance of India-Italy Relationship

- **Shared Perspective on the Indo-Pacific Region:** Both nations emphasize the importance of maintaining an open, secure, and free Indo-Pacific.
- Prime Minister Meloni highlights Italy's view of the Indo-Pacific as an extension of the "enlarged Mediterranean," forming a geostrategic continuum with the Indian Ocean.
- Italy, positioned at the Mediterranean's heart, serves as a natural link to the Indo-Pacific.
- **Engagement of Italian Enterprises in the Indo-Pacific:** Italian companies, known for their innovative solutions, are eager to expand their footprint in India. This venture is expected to contribute to the stability of the Indo-Pacific.
- **Focus on Maritime Security:** In August 2023, the Italian Navy's ITS Morosini visited Mumbai, marking the first such visit in years.
- During this visit, a seminar on maritime security, co-hosted by the embassy, highlighted mutual interests in maritime surveillance and addressing underwater threats, including those to pipelines and digital networks.
- Collaboration in maritime defense is a key aspect of renewed defense sector cooperation.
- **Trade and Connectivity:** Italy and India are dedicated to improving both digital and physical infrastructure.
- The **Blue-Raman project**, led by an Italian company, aims to enhance digital data exchange between the Mediterranean and the Indian Ocean, while the **India-Middle East-Europe Economic Corridor (IMEC)**, initiated at the G20 summit in Delhi, seeks to create a new Asia-Europe trade route.
- Italy, with its export-driven economy and 58 ports, is vital for uninterrupted Indo-Pacific trade.
- Italian expertise in maritime and railway sectors positions the country to contribute significantly to these initiatives, with Italian ports serving as key terminals for the IMEC and gateways to Europe.
- **Bilateral Trade Between India and Italy:** Recent years have seen a record surge in bilateral trade, with promising trends continuing.
- There is significant exchange in goods and services, with Italian machinery, automotive products, and luxury goods gaining popularity in India, while Indian materials like aluminium, steel, and iron support Italian manufacturing.
- **Fostering People-to-People Connections:** The recent signing of a Migration and Mobility Agreement during the Indian External Affairs Minister's visit to Italy aims to facilitate this.
- Italy, home to one of the largest Indian communities in the EU, continues to welcome increasing numbers of students and workers from India.
- **Space Collaboration:** Italy shows growing interest in India's space achievements, such as the successful Chandrayaan-3 mission. There's a mutual interest in strengthening space sector cooperation.

(d) agency of EU to deal with the conflicts arising among the member countries

Answer: (b)

- Long-standing collaborations between the Italian Space Agency (ASI) and the Indian Space Research Organisation (ISRO), as well as academic and corporate partnerships, have been bolstered by a joint declaration between ASI and ISRO heads, opening new avenues in earth observation, space exploration, and helio-physics.

Italy's Strategic Reorientation Away from BRI, Towards India

- Italy's Initial Participation in the BRI:** Italy, under previous leadership, became the first G7 country to join China's BRI during Chinese President Xi Jinping's visit to Rome in 2019.
- This decision was driven by the hope that China would become a major market for Italian products and that Chinese investment would boost Italian infrastructure.
- Disappointing Outcomes:** However, the benefits anticipated from joining the BRI did not materialize as expected for Italy.
- While Italian exports to China increased modestly, Chinese exports to Italy grew much more significantly.
- Furthermore, Chinese Foreign Direct Investment (FDI) in Italy decreased sharply, from \$650 million in 2019 to just \$33 million in 2021.
- Rethinking the BRI Association:** The current Italian Prime Minister, Giorgia Meloni, has indicated that Italy's decision to join the BRI was a "big mistake".
- This assessment is based on the uneven trade growth and the significant drop in Chinese investment in Italy.
- With the five-year memorandum of understanding regarding the BRI set to expire in March 2024, Italy has officially communicated its position to Beijing, signaling a potential withdrawal or significant revision of its engagement in the BRI.
- Strategic Alignment with India:** This re-evaluation of Italy's stance on China's BRI coincides with strengthened ties with India. The two nations have elevated their bilateral relationship to a Strategic Partnership level.
- This closer relationship is marked by mutual interests in promoting a green economy, energy security, defense co-production and co-innovation, and the blue economy.
- Broader Implications:** Italy's reconsideration of its involvement in the BRI reflects a growing awareness in Europe of China's expanding influence and the need for a more balanced approach to engaging with Beijing.
- This move also aligns Italy more closely with India's long-standing opposition to the BRI, particularly due to sovereignty concerns over the BRI's route through Pakistan-occupied Kashmir.

Belt and Road Initiative (BRI)

- The Belt and Road Initiative (BRI), also known as the One Belt One Road (OBOR) initiative,** is a global development strategy adopted by the Chinese government involving infrastructure development and investments in countries in Europe, Asia, Africa, the Middle East, and the Americas.
- Launched in 2013, the BRI aims to enhance regional connectivity and embrace a brighter economic future by building a trade and infrastructure network connecting Asia with Europe and Africa along the ancient trade routes of the Silk Road.
- The initiative has two main components:
 - The Silk Road Economic Belt:** This is the overland route that connects China to Central Asia, Western Asia, the Middle East, and Europe, replicating the ancient Silk Road trading route.
 - The 21st Century Maritime Silk Road:** This is a sea route linking China's southern coast to the Mediterranean, Africa, South-East Asia, and Central Asia.
- The BRI's goals include improving infrastructure, increasing trade, and stimulating economic growth across the regions it connects.
- The initiative has been met with a mix of enthusiasm and skepticism from the global community.
- While some view it as a chance for economic development, others are wary of China's expanding influence and the potential for debt dependency among the participating countries.

Challenges in India-Italy Relationship

- Economic Differences and Trade Imbalances:** Italy's economy is more developed and focused on high-end manufacturing and design, while India's economy is diverse, with a significant emphasis on services and agriculture. Aligning their economic interests for mutual benefit can be challenging.
- Geopolitical Dynamics:** Italy is a part of the European Union, and its foreign policy is often aligned with the EU. This can sometimes be at odds with India's independent foreign policy stance, particularly on issues like Russia, China, and the Indo-Pacific region.
- Burdened by Events:** Events such as the handling of the Italian Marines case and the termination of the VVIP helicopter contract have strained the relationship.

Way Forward

- Italy and India are well-positioned to collaborate on global matters, as both nations recognize the importance of shaping and advocating for a new international agenda.
- These two countries can effectively complement each other in tackling current critical issues that predominantly impact the Global South, but also significantly influence worldwide security, stability, and environmental sustainability.
- India, during its tenure as the G20 President, actively engaged in various initiatives, including advocating for debt relief for developing countries, calling for reforms in international financial institutions, and promoting sustainable development and climate change solutions.
- One notable initiative is the Global Biofuels Alliance, which Italy has endorsed and joined.
- As Italy gears up for its G7 Presidency in 2024, it acknowledges the significance of addressing the needs and concerns of a large segment of the global population, inspired by the precedent set by India.

Conclusion

The current state of India-Italy relations is seen as a positive development, marking a new era of cooperation and strategic alignment.

Why Many US Allies Have Not Joined Its Op Prosperity Guardian

SOURCE: THE INDIAN EXPRESS

PRIORITY: MEDIUM

Why in the news?

- Recently, the US formed a multinational task force - Operation Prosperity Guardian - to combat the crisis in the Red Sea and provide protection for vessels passing through the critical maritime trade route.
- However, many US allies such as Italy and Spain have declined to be associated with the new task force.

What is Operation Prosperity Guardian?

- **Operation Prosperity Guardian** is a multinational task force launched by the U.S.A. to conduct joint patrols in the Red Sea and the Gulf of Aden.
- The naval protection force will be under the leadership of the **Combined Task Force 153 (CTF 153)** and will function as a "highway patrol" in the sea.
- It aims to **counter Houthi-led attacks on commercial vessels** passing through the region and ensure billions of dollars worth of commerce can flow freely through the Red Sea.
- **Member countries:**
 - According to the USA, 20 countries have joined the coalition. However, only ten countries have been officially mentioned.
 - They include Australia, Bahrain, Canada, France, Greece, Italy, the Netherlands, Norway, Seychelles and Spain.
 - Their contributions include the dispatch of warships or even just the deployment of a staff officer.
- The coalition was necessary since the **mixed nature of the threat (drone, missile, and small boat attacks)** makes it more challenging to respond to since all countries do not have the same naval capabilities as the U.S.A.
- The USS Gravelly destroyer recently shot down two anti-ship ballistic missiles fired at a Maersk ship in the southern Red Sea.



Which countries have been reluctant to join?

- **Italy:** It stated that it would deploy a ship (Virginio Fasan) to the Red Sea following requests from Italian ship owners.
- However, it would not be part of Operation Prosperity Guardian.

News summary:

The USA-led alliance to secure safe passage in the Red Sea amid attacks by the Houthis has seen setbacks with Allies declining to join over various concerns.

UPSC Mains Practice Questions

Q.1 In 2012, the longitudinal marking of the high-risk areas for piracy was moved from 65° East to 78° east in the Arabian Sea by the International Maritime Organisation. What impact does this have on India's maritime security concerns? (GS2 2014)

Q.2 'Sea is an important Component of the Cosmos' Discuss in light of the above statement the role of the IMO (International Maritime Organisation) in protecting the environment and enhancing maritime safety and security. (GS2 2023)

MCQs

Question: With reference to 'Indian Ocean Rim Association for Regional Cooperation (IOR-ARC)', consider the following statements: (UPSC 2015)

1. It was established very recently in response to incidents of piracy and accidents of oil spills.
2. It is an alliance meant for maritime security only.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: (d)

Question: With reference to the United Nations Convention on the Law of Sea, consider the following statements:

1. A coastal state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles,

- **France:** It expressed support for efforts to ensure freedom of navigation in the Red Sea but stated that its ships would remain under French command.
- **Spain:** It refused to join Operation Prosperity Guardian.
 - It also rejected the proposal to use the E.U.-led anti-piracy mission Atlanta to protect ships in the Red Sea.
 - Spain agreed to consider creating a different mission to meet the challenges in the Red Sea.
- **Other European states:** The Netherlands, Norway, and Denmark have claimed that they would contribute by sending officers.
- **Arab states:** Saudi Arabia and the United Arab Emirates (UAE) have claimed that they were not interested in participating in the venture.
- **Bahrain which houses the 5th Fleet of the US Navy is the only Middle Eastern nation to have joined the operation** despite most states sustaining losses due to the re-routing of ships.
- **Australia:** Australia has agreed to triple its contribution to the Combined Maritime Forces but will not deploy a ship or a plane.
 - Its strategic focus was the **north-east Indian Ocean, the South China Sea, the East China Sea, the Pacific.**

Why have they been reluctant to join?

- Around half of the countries mentioned by the US have been reluctant to acknowledge their contributions to the coalition.
- **Gaza conflict:** The major reason for the reluctance was the differences in opinion about the ongoing conflict in Gaza.
 - The **U.S. has firmly reaffirmed its support for Israel** despite international criticism of Israel's actions which have resulted in the deaths of around 21,000 Palestinians.
 - On the other hand, many **European countries have been concerned with a loss of public support** as the European public has been critical of Israel's actions and expressed wariness about being drawn into an extended conflict in West Asia.
 - Western Europeans - particularly Spain and Italy - believe that Israel should cease military action in Gaza.
 - **Arab countries have consistently presented a principled opposition to Israel and supported the Palestinian cause even though they have sought to normalize relations with Israel in recent years.**
 - In October 2023 UAE, Jordan, Bahrain, Saudi Arabia, Oman, Qatar, Kuwait, Egypt, and Morocco condemned the flagrant violations of international law by Israel in response to the Hamas attacks.
- **Houthi retaliation:** Another reason countries have been reluctant to join was the risk of Houthi retaliation.
 - The **Houthi attacks on m.v. Chem Pluto and m.v. Sai Baba** has served as a deterrent.
- **Saudi Arabia's interests:** Saudi Arabia has transitioned towards a peace talks approach with the Houthis with whom it has been in conflict with since the Saudi-led alliance launched a military intervention (Operation Decisive Storm) in Yemen in 2015.
 - It has also pushed for closer ties with Iran and therefore believes that joining the alliance could be counter-productive for its goals.

What could this mean for the task force?

- Many **European and Gulf countries are already participants in several U.S.-led military groups in the Middle East.**
 - For example, the 39-nation Combined Maritime Forces (CMF) with Spain, France, Saudi Arabia, the UAE, and Yemen as members.
 - Additionally, **Operation Atlanta** operates reciprocally with the CMF.
- Therefore, **countries that do not formally join Operation Prosperity Guardian could still coordinate patrols with the U.S. Navy.**
- The reluctance of **France and the Gulf countries** could impact the effectiveness of the task force since they are major players in the region.
 - **France has a considerable influence in the Western Indian Ocean through its overseas territories.**
 - It also has **overseas military facilities in the region at Reunion Island, Djibouti, and the United Arab Emirates.**
- The U.S. has attempted to encourage international support for the task force due to the **threat it faces on multiple fronts from Iranian proxies.**
 - U.S. troops in Syria and Iraq have been attacked by Iran-backed militia.
 - Although the US, has responded to the attacks in the form of retaliatory air strikes in Iraq and Syria, it has not attempted such strikes in Yemen.
- The formation of the new maritime coalition aims to **make future Houthi attacks an international issue so that it can be divorced from Israel's actions in Gaza.**
 - Further, attacks on vessels under the protection of the coalition would be **treated not just as an attack on the US but on the member countries as well.**

measured from baseline determined in accordance with the convention.

2. Ships of all states, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.
3. The Exclusive Economic Zone shall not extend beyond 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.

Which of the statements given above are correct? (UPSC 2022)

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

Question: Consider the following pairs : (UPSC 2019)

Sea:

Bordering country

1. Adriatic Sea: Albania
2. Black Sea: Croatia
3. Caspian Sea: Kazakhstan
4. Mediterranean Sea: Morocco
5. Red Sea: Syria

Which of the pairs given above are correctly matched? (UPSC 2019)

- (a) 1,2 and 4 only
- (b) 1,3 and 4 only
- (c) 2 and 5 only
- (d) 1,2,3,4 and 5

Answer: (b)

- In this light, the **reluctance of countries to join the task force is a stumbling block for the U.S.'s strategy regarding the Israel-Hamas conflict and for the protection of commercial vessels passing through the Red Sea.**

What is India's position on the task force?

- According to government officials, **India was unlikely to join Operation Prosperity Guardian.**
- The government has expressed concern that its participation and alliance with the USA could make it a target for retaliation.

Other operations in the region

- **Operation Atalanta:** It was established by the **European Union Naval Force Somalia (EUNAVFOR)** to support the UN in **protecting the seas from piracy** in the Western Indian Ocean and off the **Horn of Africa.**
- **Operation Agenor:** It is a **European-led operation** that aims to guarantee freedom of navigation in the **Strait of Hormuz.**
- **Combined Maritime Forces (CMF):** It is a multinational maritime partnership led by the U.S. with 39 members including India to uphold the rules-based international order.
- The **Combined Task Force 153 (CTF 153)** is one of five task forces operated by the Combined Maritime Forces (CMF).
- It was established in 2022 and focuses on maritime security in the Red Sea.

Conclusion

The reluctance of key allies to join Operation Prosperity Guardian highlights the complexities of international cooperation particularly due to the divergent views on Israel's actions in Gaza. The reluctance of members to join could affect the effectiveness of the task force and raise questions about the broader strategy in the Red Sea region.

Angola Quits OPEC Amid Dispute Over Oil Production Quotas

PRIMARY SOURCE: LIVEMINT

PRIORITY: MEDIUM

Why in the news?

- Recently, **Angola decided to leave the Organization of Petroleum Exporting Countries (OPEC) after 16 years** due to a dispute over oil production quotas.
- Angola **disagreed with a reduced output limit set by OPEC**, which aimed to adjust for the country's decreasing oil production capacity.

Why did Angola Leave OPEC?

- **Dispute Over Production Quotas:** Angola had issues with the reduced output limit imposed by OPEC's leaders. This limit was a response to Angola's dwindling oil production capacity, but Luanda (the capital of Angola) rejected it.
- **Diminished Production Capacity:** Over the past eight years, Angola's oil output **collapsed by about 40% to around 1.14 million barrels a day.** This decline was attributed to inadequate investment in aging, deepwater oil fields.
- **Unfavorable Deal Outcomes:** In June, following a deal that increased the production target for the United Arab Emirates, Angola was forced to accept an even lower limit for 2024.
- **Further Reductions in Quotas:** A review by external consultants led to OPEC imposing an even lower quota on Angola (**1.1 million barrels a day**), which was below its current output.
- Angola rejected this new quota and expressed its intention to continue pumping as much oil as possible.
- **Perceived Lack of Relevance and Benefit:** Angola's Mineral Resources Minister stated that the country's role in OPEC was not deemed relevant and their participation was not yielding results aligning with their interests.

Impact of Angola's Departure

- **Impact on Global Oil Supply and Prices:** Angola's departure won't have a significant impact on global oil supply forecasts because Angola is already producing at its full capacity, which aligns with the current OPEC quotas.
- **OPEC's Cohesion and Membership Dynamics:** Angola's exit might raise concerns about OPEC's cohesion. The departure signals potential challenges within OPEC regarding the balancing of member countries' interests and capacities.
- **Wider Geopolitical and Economic Implications:** Non-OPEC countries, like the United States, have increased their oil production, potentially reducing OPEC's market influence.
- The move might also reflect a growing trend where countries reassess their participation in international organizations based on national interests and benefits.
- **Future of OPEC:** Several other members have left OPEC in recent years for various reasons, including **Qatar, Indonesia, and Ecuador.** This trend might prompt a reassessment of OPEC's strategies and policies to retain its relevance and effectiveness in the global oil market.

What is Organization of Petroleum Exporting Countries (OPEC)?

News summary:

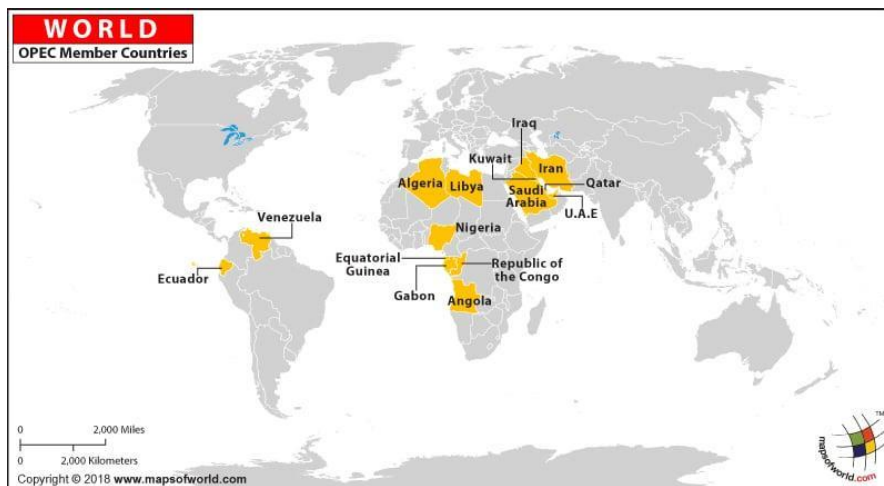
Angola exited the OPEC due to disagreements over reduced oil production limits, reflecting declining output. Despite having a limited impact on global supply, it raises concerns about OPEC's unity and strategies.

MCQs

Q. Other than Venezuela, which one among the following from South America is a member of OPEC? (UPSC 2009)

- (a) Argentina
- (b) Brazil
- (c) Ecuador
- (d) Bolivia

Answer: (c)



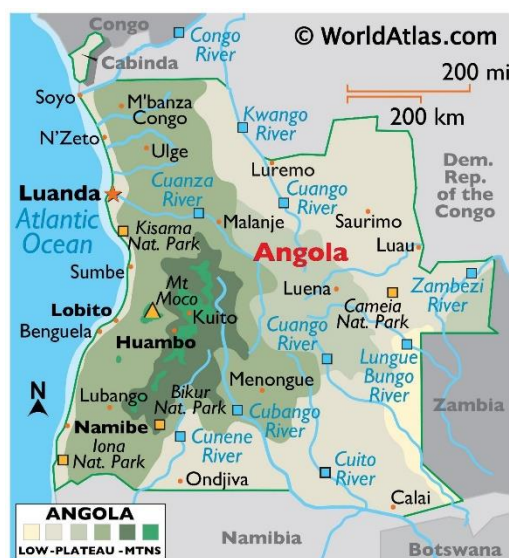
- The Organization of the Petroleum Exporting Countries (OPEC), an enduring, intergovernmental entity, was **established at the Baghdad Conference in 1960** by **Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela**.
- Its primary goal is to regulate the supply of oil to stabilize oil prices in the global market, thereby preventing economic disruptions for both oil-producing and oil-purchasing nations.
- **OPEC's headquarters is located in Vienna, Austria.**
- Membership in OPEC is available to any country significantly exporting oil and aligning with the organization's objectives.
- Gabon, which left the organization in January 1995, rejoined in July 2016.
- **As of 2019, OPEC consists of 14 member countries: Iran, Iraq, Kuwait, the United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, Equatorial Guinea, the Republic of Congo, Angola, Ecuador, and Venezuela.**

OPEC+

- OPEC+ is a group of **24 oil-producing nations**, made up of the 14 members of the Organization of Petroleum Exporting Countries (OPEC), and **10 other non-OPEC members, including Russia.**
- These 10 other non-OPEC members include **Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.**
- The OPEC bloc is nominally **led by Saudi Arabia**, the group's largest oil producer, while Russia is the biggest player among the non-OPEC countries.
- The format was **born in 2017** with a deal to coordinate oil production among the countries in a bid to stabilize prices.

Since then, the group has reached deals for members to voluntarily cut and ramp-up production in response to changes in global oil prices.

About Angola



- Angola is a nation situated along the **western coastline of Southern Africa.**
- It shares its **southern border with Namibia, its northern boundary with the Democratic Republic of the Congo, Zambia to its east**, and is flanked by the **Atlantic Ocean** on its western side.

Conclusion

The decision to leave OPEC marks a significant turn in Angola's oil strategy, emphasizing self-interest over collective action. Angola's departure highlights the challenges faced by OPEC in maintaining cohesion and influence in the global oil market.

ETHICS**Ethics in the Online Gaming Industry: A Framework for Digital Responsibility****SOURCE: THE HINDU****PRIORITY: MEDIUM**

The proliferation of online gaming has brought forth significant ethical considerations, necessitating a structured approach to responsible behavior within the industry. The introduction of the 'Code of Ethics for Online Gaming Intermediaries' marks a pivotal moment in the commitment to integrity and accountability in digital entertainment.

Stakeholder Interests and Ethical Concerns:

The ethical landscape is diverse, involving various stakeholders with distinct interests and concerns:

Stakeholders	Interests	Ethical Concerns
Game Developers	Profitability, increasing user base, reputation	Exploitative Monetization Practices, Content Appropriateness, Privacy and Data Security, Fair Play and Anti-Cheating Measures
Gamers	Entertainment, fair play, privacy	Addiction, toxicity, unfair play
Regulatory Bodies	Consumer protection, ethical environment	Gambling issues, promotion of fair competition
Advertisers/Sponsors	Revenue, brand visibility	Misleading advertisements, surrogate advertising

The Code of Ethics for Online Gaming Intermediaries:

This code represents a collaborative initiative among major industry stakeholders to self-regulate and promote ethical practices. The signatories include prominent organizations like the Federation of Indian Fantasy Sports, E-Gaming Federation, and All-India Gaming Federation.

Key Ethical Principles:

The code outlines several key principles aimed at fostering a responsible gaming environment:

- **Responsible Gaming:** Encouraging users to engage in self-regulation by setting personal limits.
- **Safeguards for Minors:** Implementing age restrictions to protect minors.
- **Fair Gaming:** Ensuring transparency in terms of service and privacy policies.
- **Anti-Deception:** Preventing the use of bots for a genuine gaming experience.
- **Financial Integrity:** Preventing platforms from being used for illegal financial activities.
- **Cybersecurity:** Maintaining secure and reliable gaming experiences.
- **Ethical Marketing:** Adhering to ethical advertising and marketing standards.

Strategies for Ethical Progress:

The industry can employ various strategies for promoting ethical gaming:

- **Consumer Protection:** Application of standard measures like the test of acceptable quality to assess the fairness of online gaming platforms.
- **Innovative Systems:** Introduction of systems to incentivize positive behavior among players, such as commendation systems for teamwork and strategy.

Conclusion

The 'Code of Ethics for Online Gaming Intermediaries' sets a precedent for self-regulation in the digital age, addressing ethical challenges and establishing a foundation for responsible gaming practices. As the industry evolves, a commitment to upholding these principles will be essential in maintaining trust and integrity within the digital gaming community.

News Summary:

This article highlights the urgency of regulating India's online gaming sector, emphasizing market failures and other challenges such as addiction, fraud, and a lack of clear regulations.

Recommendations include the development of a centralized authority and strict enforcement of regulations.

UPSC Mains Practice Questions

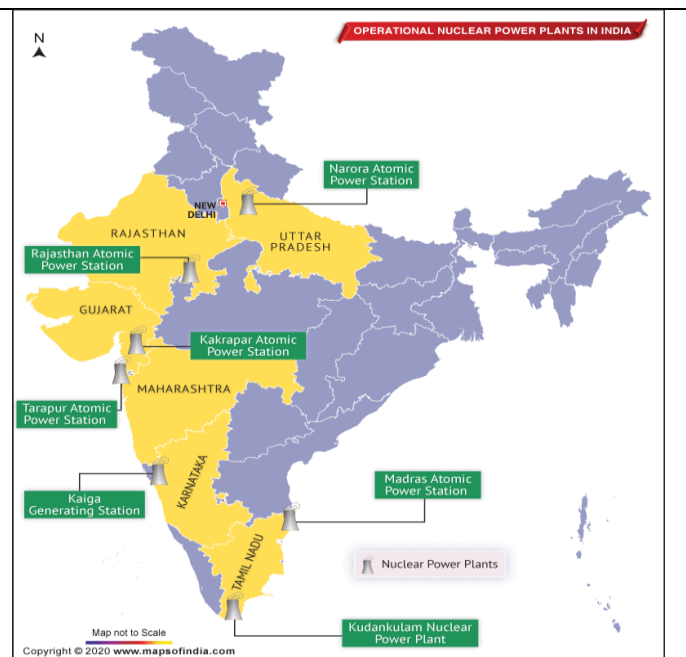
Q.1) Considering the threats cyberspace poses for the country, India needs a "Digital Armed Forces" to prevent crimes. Critically evaluate the National Cyber Security Policy, 2013 outlining the challenges perceived in its effective implementation. (GS3 2015)

Q.2) Social values are more important than economic values. Discuss the above statement with examples in the context of inclusive growth of a nation. (GS4 2015)

PLACES IN THE NEWS – INDIA**Kakrapar (Gujarat)**

Reason to be in news: Recently, the fourth unit of the **Kakrapar Nuclear Reactor in Gujarat** started a controlled **nuclear fission reaction** and reached criticality on December 17th, 2023. The 700 MWe unit reactors at Kakrapar are the **largest indigenous nuclear reactors** built by the **Nuclear Power Corporation of India Limited (NPCIL)**. The Kakrapar Atomic Power Project, located in Mandvi taluka of Surat district, consists of four nuclear reactors. The third and fourth reactors (KAPP-3 and KAPP-4) have a 700 MWe capacity while the first and second reactors (KAPS-1 and KAPS-2) have a 220 MWe capacity. The **Indian PHWR-700** used at KAPP-4 is a **third-generation reactor** that has been **developed by the NPCIL and designed at BARC** from CANDU reactors (Canada Deuterium Uranium), a Canadian pressurized heavy-water reactor design supplied by Canada six decades ago.

Geographical Location: The Kakrapar Atomic Power Project is located in **Mandvi taluka of Surat district**. It is built over the **Tapi River**. This project is present on the **Karapura Dam** in Gujarat



Shahi Idgah (Mathura)

Reason to be in news: Recently, a survey at the **Shahi Idgah**, a mosque in **Mathura**, was approved following a decision by the **Allahabad High Court**. The survey relates to a historical and religious dispute involving the **Shahi Idgah mosque and the adjacent Krishna Janmabhoomi temple**. The survey request was filed on behalf of the Hindu deity Shri Krishna and seven others. They claim that the mosque was constructed over Shri Krishna's birthplace by Mughal Emperor Aurangzeb in 1670. Before the mosque's construction, the site is said to have housed the **Keshava Deva temple**, built during the **reign of Jahangir, Aurangzeb's grandfather, by Bir Singh Bundela**. This temple was reportedly patronized by **Dara Shukoh, Aurangzeb's brother**.

Geographical Location: Mathura city in western Uttar Pradesh lies in the **Ganges-Yamuna Doab**, on the **Yamuna River**, northwest of Agra. The general slope of the town is the northwest to southeast towards the river Yamuna. It is located north of Agra, and south-east of Delhi.

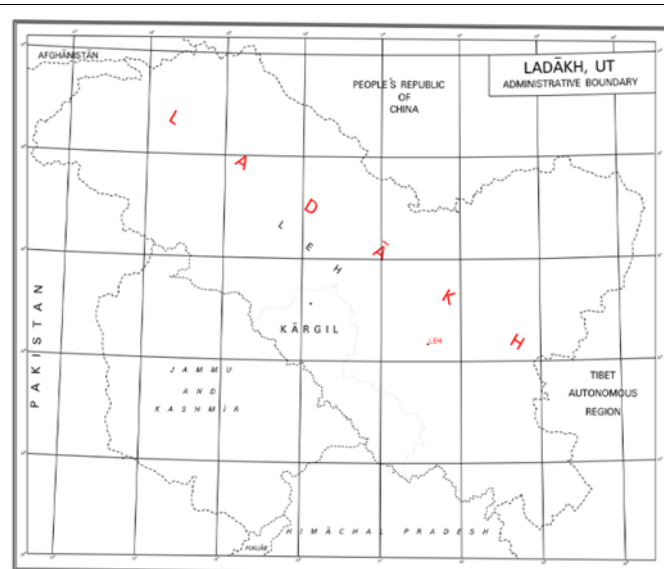


Jammu & Kashmir and Ladakh

Reason to be in news: Recently, the Supreme Court of India unanimously **upheld the repeal of Jammu and Kashmir's special status under Article 370 of the Constitution**. In 2019, a special presidential order abrogated Article 370, following which the state was split into **two UTs of Jammu and Kashmir and Ladakh**.

Geographical Location: Jammu & Kashmir is located in the extreme north of the country. It is **bounded on north by China, on east by Tibet, on south by Himachal Pradesh, Punjab and on west by Pakistan**. It is divided into four zones - the mountainous and semi-mountainous plain known as Kandi belt, hills including Siwalik ranges, mountains of Kashmir valley and Pir Pungal range and Tibetan tract of Ladakh and Kargil. The important rivers of this state are **Indus, Chenab and Suttlej (Jhelum)**.

Ladakh, union territory of India, located in the northern part of the Indian subcontinent in the vicinity of the **Karakoram and westernmost Himalayan Mountain ranges**. It is **bounded by Jammu and Kashmir union territory to the west and by Himachal Pradesh to the south; its northern and eastern borders are disputed with Pakistan and China**, respectively. Ladakh was administered as part of Jammu and Kashmir state from 1947 until 2019, when it became a separate administrative unit.

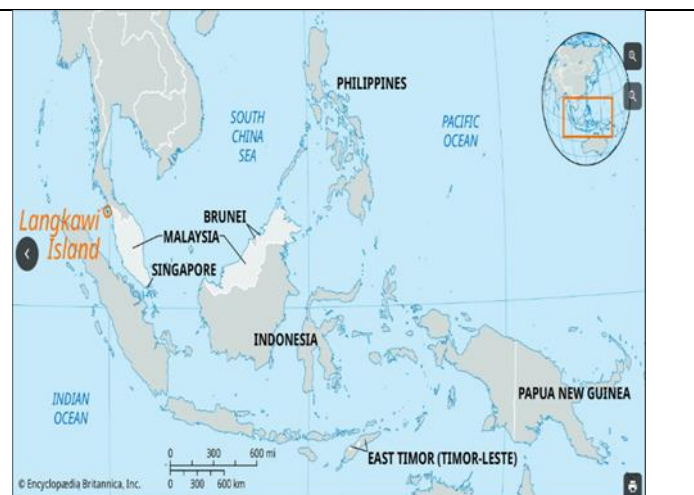


PLACES IN THE NEWS – WORLD

Langkawi, Malaysia (ASEAN India Grassroots Innovation Forum)

Reason to be in news: Recently, India participated in the **4th edition** of the ASEAN India Grassroots Innovation Forum (AIGIF) held in **Langkawi, Malaysia**. The **ASEAN India Grassroots Investment Forum** is an annual forum to strengthen the cooperation between **India** and the **ASEAN** in the fields of **Science, Technology, and Innovation**. The objective is to provide **exposure to social innovation** and **strengthen governance in the grassroots innovation ecosystem**.

Geographical Location: Langkawi Island, main island of the Langkawi group, in the Strait of Malacca, Peninsular (West) Malaysia. It lies just south of the Thai island of Tarutao. Langkawi, 18 miles (29 km) long and 10 miles (16 km) wide, rises to 2,887 feet (880 meters) at Raya Mountain.



Venezuela

Reason to be in news: Recently, Indian companies agreed on deals to import crude oil from Venezuela following the **lifting of US sanctions** in October. Venezuela with the **world's largest proven oil reserves** was **India's fifth-largest supplier of crude oil** in 2019 but imports were halted in 2020 due to the sanctions. **India- the world's third-largest oil consumer and importer** - relies on imports to meet 80% of its oil needs. In the 2017-2019 period, Venezuelan imports accounted for 5-7% of Indian imports.

Geographical Location: Venezuela is located at the **northern end of South America** with its capital at **Caracas**.

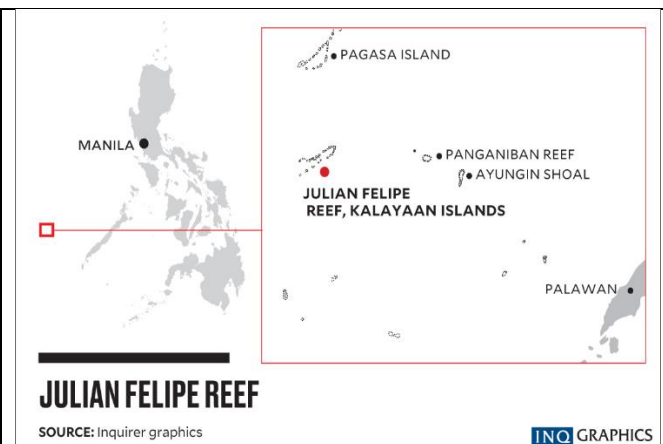
Administered territories are Margarita Island, La Blanquilla, La Tortuga, Los Roques, and Los Monjes. It is bounded by the **Caribbean Sea and the Atlantic Ocean to the north, Guyana to the east, Brazil to the south, and Colombia to the southwest and west**. Venezuela is home to the Northern Andean mountains and interior highlands like the Guiana Highlands, Main portions of the Orinoco River basin and its Llanos (plains), **Lake Maracaibo**, the largest lake in South America, and **Angel Falls**, the world's highest waterfall.



Julian Felipe Reef (Philippines)

Reason to be in news: The Philippines has recently asserted that over 135 Chinese vessels were detected near the Julian Felipe Reef, situated off the coast of the Philippines. Tensions persist between China and the Philippines over territorial disputes concerning reefs and islands in the South China Sea.

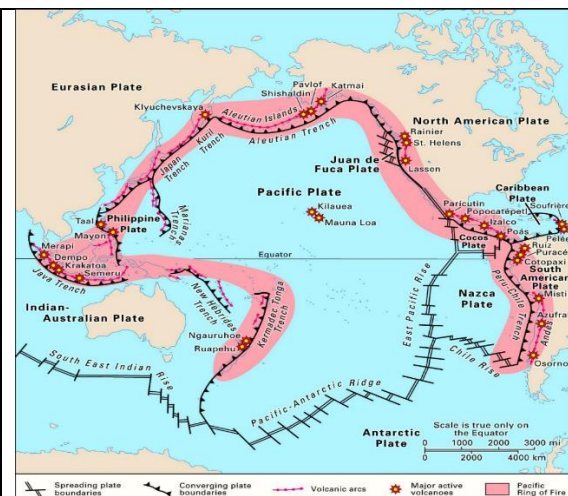
Geographical Location: The Julian Felipe Reef is a large boomerang-shaped shallow coral reef that is part of the Spratly Islands. It is also known as the Whitsun Reef. It is located in the West Philippine Sea which is a part of the South China Sea. It lies within the Philippines' exclusive economic zone.



Mount Merapi (Indonesia)

Reason to be in news: Indonesia's Mount Merapi, situated on **Sumatra Island**, experienced a **volcanic eruption** that tragically resulted in the death of at least 11 hikers from a group of 26, with three individuals successfully rescued. The eruption expelled a massive ash column into the sky, **reaching a height of 3,000 meters**, leading to the dispersal of volcanic debris that impacted nearby villages.

Geographical Location: Mount Merapi, classified as an **active stratovolcano**, straddles the border between **Central Java province** and the **Special Region of Yogyakarta** in Indonesia. It holds the distinction of being **Indonesia's most active volcano** and has exhibited periodic eruptions since the **year 1548**. Indonesia, located along the **subduction zone** where the **Indo-Australian Plate** is subducting beneath the **Eurasian Plate**, is part of the **Pacific Ring of Fire**, which frequently experiences volcanic and seismic activities.



Congo

Reason to be in news: Recently, a report by the WHO revealed that **12,569 suspected mpox cases**, including 581 deaths, were reported in the **Democratic Republic of Congo between January 1st and November 12th 2023**. This was significant because it was the **highest number of annual cases ever reported** and included the **first sexually transmitted infection of mpox in the world**. Mpox is an infectious disease caused by the monkeypox virus (MPXV) with symptoms similar to smallpox but with less clinical severity.

Geographical Location: The Democratic Republic of the Congo (Congo-Kinshasa and formerly known as Zaire) is a country in Central Africa. It is the **second largest country in Africa** by land area and the 11th largest in the world. **The Congo River**, the second-longest river in Africa, passes through the DRC. More than half the country is covered by dense tropical rainforests. **Its capital is Kinshasa** on the Congo River. **It borders Republic of the Congo, Central African Republic, South Sudan, Uganda, Rwanda, Burundi, Tanzania (across Lake Tanganyika), Zambia, and Angola**. It also has a coastline along the South Atlantic Ocean.



Italy

Reason to be in news: Italy, the sole major Western country to become a participant in **China's Belt and Road Initiative (BRI) back in 2019**, has officially **declared its departure** from the project prior to the year-end cutoff. The BRI, a vast endeavor encompassing trade and infrastructure development, has encountered criticism, notably from the United States, which has characterized it as **"debt-trap diplomacy."**

Geographical Location: Italy, a nation resembling a boot in southern Europe, extends into the **Adriatic Sea, Tyrrhenian Sea, and Mediterranean Sea**. Its geographical location has held historical significance, with seas encompassing the country and mountain ranges crisscrossing its interior, delineating various regions.



Sri Lanka

Reason to be in news: Recently, Sri Lankan **President Ranil Wickremesinghe** announced a proposal to **establish land connectivity between India and Sri Lanka** with the goal of regional integration. India has recently become the **largest source of imports and tourists to Sri Lanka**.

Geographical Location: Rameswaram is a town and a second grade municipality in the Ramanathapuram district in the South Indian state of Tamil Nadu. The distance between Rameshwaram, a town in the Indian state of Tamil Nadu, and Sri Lanka is approximately 50 kilometers (31 miles). Rameshwaram is located on the Pamban Island, just off the southeastern coast of India, and it is separated from Sri Lanka by the **Palk Strait**. The Pamban Bridge, also known as the **Pamban Adam's Bridge**, connects Rameshwaram with the town of Mannar in Sri Lanka. It is situated in the **Gulf of Mannar**, at the very tip of the Indian peninsula. Together with Varanasi, it is considered to be **one of the holiest places in India to Hindus**, and part of the Char Dham pilgrimage.



Fagradalsfjall Volcano (Iceland)

Reason to be in news: Recently, the **Fagradalsfjall volcano** located on the **Reykjanes peninsula** in southwest Iceland erupted following weeks of tremors and earthquakes. This is the **third time** that the Fagradalsfjall volcano has **erupted in the past two years** after being dormant for over 6,000 years before this.

Geographical Location: Fagradalsfjall is a **tuya volcano** located in a zone of active rifting at the divergent boundary **between the Eurasian and North American plates**. Iceland has **33 active volcanoes** which have erupted over 180 times in the past 1,000 years. **Iceland is located on the Mid-Atlantic Ridge**, a divergent or constructive plate boundary in the North Atlantic Ocean. The Eurasian and North American plates are moving apart a few centimeters every year. This results in volcanic rift zones where the Earth's crust is pulled and fractured and magma rises to the surface and erupts as lava and/or ash. Iceland is located over a **hotspot or hot zone** where volcanic activity is higher.

Iceland volcano Fagradalsfjall

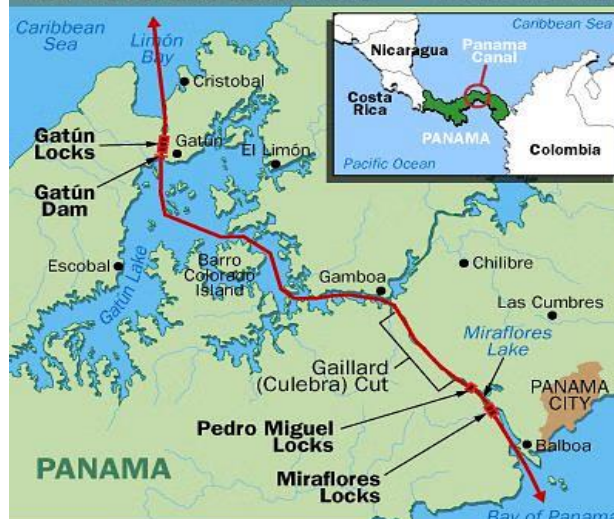


Panama Canal

Reason to be in news: Panama, which has been hit by drought, is facing its driest rainy season in decades with sparse rainfall compared to the eight months of rainfall in normal conditions. As a result, the Panama Canal which relies on water from **Lake Gatun (an artificial lake)** has had to cut down the number of ships permitted to transit the **51-meter-long canal**. According to S&P Global, the number of Very Large Gas Carriers transiting the Canal could halve by February 2024 and even drop to zero by January. In order to avoid the potential bottlenecks, **some vessels have switched to the Suez Canal route which was six days longer** while others participated in auctions to expedite their transit.

Geographical Location: The Panama Canal is a constructed waterway **connecting the Atlantic and Pacific oceans** across the **Isthmus of Panama**. It is approximately 51 miles long. It is owned and administered by the Republic of Panama since oversight of the Canal was transferred to Panama in 1999. It consists of a series of locks that raise and lower the water level to facilitate the passage of ships. The water required for this is acquired from **Lake Gatun**, an artificial lake nearby.

How the Panama Canal Works



Red Sea

Reason to be in news: Yemen-based Houthi rebels have been attacking vessels associated with Israel in the Red Sea to **protest against Israel's military offensive in Gaza**. The recent drone attacks on the **m.v. Sai Baba** and **m.v. Chem Pluto** in the region are believed to be an extension of the conflict. The attacks have forced major shipping companies such as Maersk and Hapag-Lloyd to stop using the Red Sea route.

Geographical Location: The Red Sea is an inlet of the Indian Ocean that is located between Africa and Asia. **Bordering Countries are Egypt, Saudi Arabia, Yemen, Sudan, Eritrea and Djibouti**; Indian Ocean through the **Bab el Mandeb strait** and the **Gulf of Aden** in the south; and **The Sinai Peninsula, the Gulf of Aqaba, and the Gulf of Suez** in the north. It is one of the most saline bodies in the world and occupies a part of the **Great Rift Valley (Afro-Arabian Rift Valley)**. It is surrounded by desert or semi-desert areas, with no major freshwater inflow. Coral reefs are abundant along the northern and central coasts while less abundant in the south where coastal waters are more turbid.



