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**Monthly Current Affairs  
January-February 2024**

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**Bilkis Bano Case**



**Ram Temple**



**ASER 2023**



## **Key Highlights:**

- Pran Pratishtha of Ram Temple
- Annual Status of Education Report (ASER) 2023
- Global Risk Report 2024 of World Economic Forum
- Remission of 11 Convicted Criminals in Bilkis Bano Case Overturned
- Speaker of Maharashtra Legislative Assembly Declined to Disqualify 40 MLAs of Eknath Shinde Faction

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# Foreword

## Dear Aspirants,

This magazine by the Plutus IAS team is designed in such a fashion that it holistically covers all the relevant and important topics for the Civil Services Exam to make aspirants exam-ready. Plutus IAS Current Affairs Magazine is a secondary source of information; the newspaper will remain the primary source for the preparation of Current Affairs.

Now, Current Affairs are no longer merely current; they are Contemporary Affairs. Questions asked in both Prelims as well as the Mains assess the conceptual clarity of an aspirant. This magazine is prepared with the aim of helping you understand the interlinkages of both Static and Dynamic news events and internalize the concepts required to crack this examination.

The Plutus IAS team wishes you all the best. Prepare for the UPSC Civil Services Examination with a calm, composed, or serene mind and some patience to crack this examination in one go.

**Team  
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## Sources:

The Hindu | The Indian Express | The Economic Times | Press Information Bureau | PRS Legislative Research | IDSA: Institute for Defense Studies and Analysis | Yojana and Kurukshetra | Lok Sabha and Rajya Sabha Debates.

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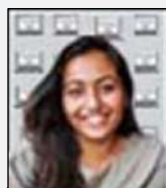
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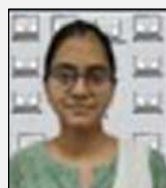
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# सामान्य अध्ययन

## विश्व इतिहास 2025-26

कोर्स की अवधि

1 वर्ष

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## BILKIS BANO CASE



### Why in the News?

The Gujarat government's remission of 11 convicted criminals in the case of Bilkis Bano has been overturned by the Supreme Court. These prisoners were ordered by the supreme court to report to the jail administration in two weeks.

### About the case

- A small group of individuals attacked Bilkis Bano and the rest of her family following the 2002 Godhra riots in Gujarat.
- After a vicious gangrape, seven of Bilkis' family members were killed.
- Only a three-year-old, a man, and Bilkis made it out of the attack alive.
- The National Human Rights Commission (NHRC) took up her complaint, and the Supreme Court ordered the CBI to conduct an investigation.
- The case was transferred from Gujarat to Mumbai, where accusations were brought against these individuals, due to recurrent threats of death.
- A special CBI court in Mumbai had convicted all eleven suspects to life in jail in January 2008.

### Release of the convicts :

- After serving 15 years and 4 months of his life sentence, one of the prisoners, Radheshyam Shah, appealed to the SC in 2022 in order to be

released early.

- The Gujarat government was given this case by the Supreme Court in May 2022 and then SC requested that the Gujarat government take Shah's request for an early release into account in accordance with the state's 1992 remission policy.
- With its remission policy, the Gujarat government freed all 11 of the gangrape case's inmates on August 15, 2022.
- But this decision provoked a strong outcry from the people and led to petitions from opposing Members of Parliament.
- **Review Bilkis Bano's petition** – In order to evaluate the Gujarat government's decision to order the release of the 11 gangrape convicts, Bilkis Bano, the defendant, filed a petition for review with the Supreme Court in 2022. The present ruling was rendered in reaction to the Bano's review petition.

### Current Judgement of Supreme Court

- Since the trial took place in Maharashtra, the Gujarat government didn't qualify as the proper government to issue the remission order. There is incompetence in the exemption order. Only the state where they are prosecuted has the authority to release criminals.
- The bench further declared that deception and the omission of facts were used to attain the May 13, 2022, SC order.
- The Gujarat government needs to have submitted a plea arguing that they are not the appropriate government and asking for a reconsideration of the 2022 judgement.

# BILKIS BANO CASE

Section 432(1) of CrPC	When any person has been sentenced to punishment for an offence, the appropriate government may, at any time, accepts, suspend the execution of his sentence or remit the whole or any part of the punishment to which he has been sentenced.
Section 435 of CrPC	The State government has to act after consultation with the Central government in cases investigated by agencies functioning under a Central Act.
Section 433A of CrPC	If life imprisonment is imposed on conviction of a person for an offence for which death is one of the punishments provided by law, or where a death sentence imposed on a person has been commuted under Section 433 into life imprisonment, such person shall not be released from prison unless he had served at least 14 years of imprisonment.

## TIMELINE OF THE BILKIS BANO CASE

**2002:** The gangrape and killings take place on March 3

**2003:** Trial court acquits the accused Supreme Court orders a CBI inquiry

**2004:** Accused arrested and trial shifted to Mumbai by the Supreme Court

**2008:** Eleven accused sentenced to life, nine are acquitted

**2017:** Bombay High Court dismisses appeals by the convicts

**2019:** Supreme Court upholds the High Court order

**MAY 2022:** SC refers a plea for remission back to Gujarat government after Gujarat High Court rules that Maharashtra government is the competent authority to decide on remission

**AUG 2022:** The 11 convicts are let off after a committee recommends remission of life sentence; remission order not shared till August 23



- In May 2022, the Supreme Court severely disregarded its own ruling. The SC decided in May 2022 that two separate states cannot have simultaneous authority over the matter of remission.
- The policy in effect in the State where the crime was committed must be taken into consideration when deciding whether to release a criminal early. Therefore, the Gujarat government's remission policy was used to have these prisoners released.

### What is remission?

A sentence that ends completely at a reduced point is called a remission. It is different from both furlough and parole because it is a sentence reduction rather than a release from incarceration.

### Constitutional provision about remission –

- The Constitution grants the sovereign power of pardon to both the President and the Governor.
- According to Article 72, the President may pardon, reprieve, respite, or remit punishment, or he may suspend, remit, or commute the sentence of any individual found guilty of any offence –
  - (a) in any situation in which the prison term or sentence was handed down by a court martial (b) in all situations where the sentence consists of the death penalty (c) in all situations where the penalty or punishment is death.
- A Governor under "Article 161", can pardon, reprieve, respite, or remit the punishment, as well

as suspend, remit, or commute the sentence.

### Statutory remission authority –

- The “Code of Criminal Procedure (CrPC)” allows for prison term remission. This is due to the fact that prisons are a state subject. Although the Bharatiya Nagarik Suraksha (Second) Sanhita is planned to succeed the CrPC. The law was successfully approved by Parliament and had received the President’s approval, but it has yet to go into effect.
- **Section 432** – The ‘relevant government’ may suspend or remit a sentence, in whole or in part, with or without restrictions,
- **Section 433** – The appropriate authorities can commute any sentence to a lighter one.
- State governments have this authority, which allows them to order the release of prisoners before their sentences are completed.

### Case law related to remission :

The Supreme Court established five grounds for remission in ‘**Laxman Naskar v. Union of India**’ (2000) –

- Whether that offence is a single act of crime which has no societal impact.
- Is there a probability that the crime may be committed in the future?
- Whether the convicted person has perished the ability to conduct crime
- Whether there is any benefit in retaining the offender in prison.
- The convict’s and his / her family socio-economic situation

### Conclusion :

The ruling explains who has jurisdiction in remission matters, emphasising the significance of due process and legal conformity. This decision establishes an example for future remission cases, emphasising the importance of carefully considering the nature of the offence and its societal impact in such determinations.

## ANTI-DEFECTION LAW



### Why in the News?

The Speaker of the Maharashtra Legislative Assembly has declined to disqualify 40 MLAs from the Eknath Shinde faction after accepting it as the legitimate Shiv Sena.

### What is Defection

- In the legislature, a defector is someone who abandons allegiance to one party to make way for allegiance to another, switching sides in an unlawful manner according to the first party.
- In India, parliamentarians’ defections from their parent parties in the 1960s and 1970s caused political instability in numerous states, bringing down elected administrations.
- To protect the stability of democratically elected governments, the 52nd constitutional amendment, enacted under the Tenth Schedule in 1985, included a ‘anti-defection’ provision.

### About the Anti-Defection Law

- The 52nd Amendment Act of 1985 disqualified members of Parliament and state legislatures for defecting from one political party to another. This amendment added a new Schedule, Schedule 10, to the Constitution. This statute is also known as the ‘**anti-defection law**’.
- Later, the **91st Amendment Act of 2003** made one alteration to the requirements of the Tenth Schedule. It deleted an exemption provision, which said that disqualification based on defection would not apply in the event of a split.

### Some Important Features of the Act

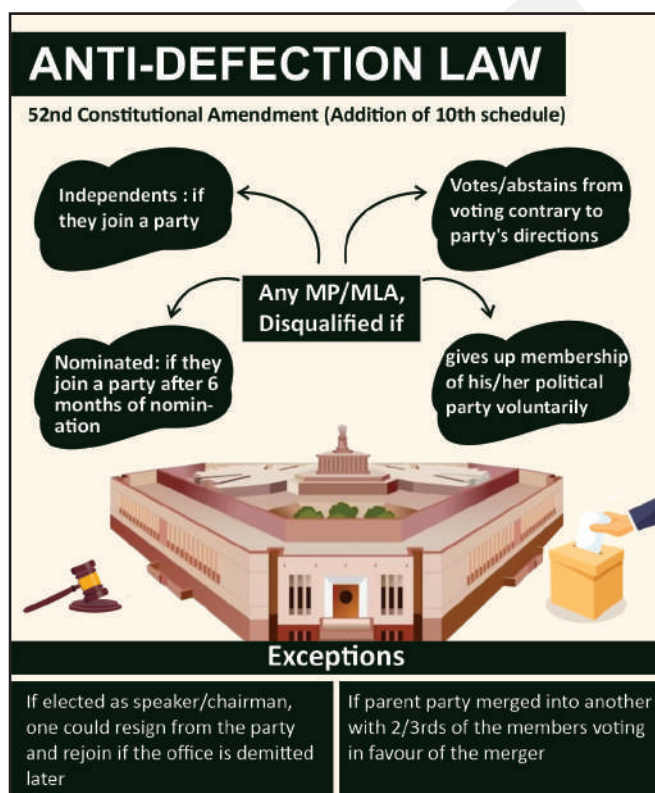
#### Disqualification:

- If he or she deliberately leaves a political party.
- In **Ravi S. Naik vs. Union of India (1994)**, the Supreme Court clarified that an MP/MLA does not need to formally resign from their party to be



disqualified under the anti-defection law. The Supreme Court clarified that “voluntarily giving up his membership” does not imply resignation. Even in the absence of a formal resignation from membership, a member’s actions can be interpreted as indicating that he has willingly resigned from the political party to which he belongs.

- If one participates in or refrains from voting in the House, as opposed to any order issued by his or her political party or anybody authorised to do so, without seeking prior approval.
- If any **independently elected member** decides to join a political party. The Supreme Court ruled in **Balchandra L. Jarkiholi Vs. B.S. Yeddyurappa (2010)** that any Independent member of Legislative Assembly who joins the Ministry in a coalition government without joining the main party will retain their independence. So becoming a member of the Council of Ministers does not preclude one’s candidature.
- If a **nominated member** of a House joins a political party after the **6 month** period that ends on the day that he assumes his seat in the House, he loses his eligibility to serve in that House.



### Exceptions:

- In the event that a party merges with another party and a member leaves the party. When the consent of two-thirds of the party involved is obtained, a merger occurs.
- If a member, after having been elected as the speaker of the House, willfully gives up or re-joins his party after he ceases to hold

### Deciding Authority:

Any question of disqualification arising from defection will be decided by the House’s presiding officer. In the **Kihoto Hollohan case (1993)**, the Supreme Court ruled that when considering an issue under the Tenth Schedule, the presiding officer acts as a tribunal. Thus, his decision is open to review by the court on the basis of mala fides, perversity, etc.

### Issues with the Anti Defection Law

- **Undermine Democracy:** It undermines democracy by limiting politicians’ freedom of speech and holding them answerable to party leaders rather than their constituents.
- **No fixed time frame:** The system lacks a time frame for determining defection cases and relies on presiding officers’ discretion, which may be influenced by political influences. However, in **Keisham Meghachandra Singh vs Speaker Manipur Legislative Assembly & Ors (2020)**, the Supreme Court declared that Speakers of Assembly and Parliament must determine disqualification petitions within three months, unless there are unusual circumstances.
- **Defections still happening:** A group of members can defect to another party without punishment if they make up at least two-thirds of their previous party. This allows for opportunistic and unscrupulous party mergers and splits, undermining the political system’s stability and integrity. This supports the practice of “horse trading,” or the buying and selling of legislators.
- **Underlying issues still persisting:** It does not address the underlying causes of defection, which include a lack of intra-party democracy, corruption, and electoral malpractice. It also



does not preclude the parties from persuading or accepting defectors, making it ineffective in discouraging defection.

### Advantages of Anti-Defection Law

- It promotes political stability by limiting parliamentarians' ability to switch parties.
- Reduces Horse trading and Money power.
- It allows the democratic realignment of parties in the legislature through party mergers.
- It decreases political corruption and non-developmental expenditures associated with irregular elections.

### Different Committees for the Anti-Defection Law

- **Dinesh Goswami committee:** Disqualification should be limited to members who willingly leave their membership. and For members who behave or vote contrary to the confidence of their party. The decision to disqualify shall be made by the President/Governor on the guidance of the Election Commission.
- According to the **Law Commission's (170th Report, 1999)**, splits and mergers would no longer be considered an exception to disqualification. Pre-poll electoral fronts should be classed as political parties under the anti-defection legislation.

### Conclusion:

The Anti-Defection Law of the Indian Constitution attempts to promote democratic stability by limiting political defections. Regardless of its importance, concerns such as limiting legislators' flexibility and procedural issues highlight the need for reform. Inspired by world-wide experiences, the proposed initiatives seek to strike a balance between stability and accountability.

**NEW RULES FOR ALLOCATING THE SYMBOLS TO UNRECOGNIZED POLITICAL PARTIES**



### Why in the News?

The Election Commission of India (ECI) has introduced a new set of rules for allocating symbols to Registered Unrecognised Political Parties (RUPPs).

### What are the new rules?

- The last three fiscal years' audited accounts must be provided by RUPPs.
- They are obligated to provide expenditure reports for the previous two elections.
- In the past, the RUPPs had provided the application form for symbols and the signature of the party's authorised office-bearer separately. These details are now included in the common symbol application format.
- The revised regulations would take effect on January 11 2023.

### Registered Unrecognised Political Parties (RUPPs)

- These parties fall into one of two categories: recently registered parties, parties that have never run for office after registering, or parties that did not receive enough votes in the assembly or general election to qualify as state parties.
- RUPPs are given common symbols in exchange for a promise to run "at least 5% of total candidates with regard to said Legislative Assembly election of a State."
- Applications for the allotment of symbols under the provisions of Paragraph 10B of the Election Symbols (Reservation & Allotment) Order, 1968 are received by the EC from RUPPs in the prescribed proforma.

### Challenges and issues faced by RUPPs

- **Lack of exposure and credibility:** RUPP struggles to raise awareness and attract voters because of their restricted means, recognition, and reach. Additionally, they struggle with credibility because the public and media frequently view them as frivolous, opportunistic, or nonserious.
- **Absence of participation and representation:** RUPP is hardly represented in legislatures and the government as a result of their low vote and seat shares. Additionally, they participate in the governance and policy-making processes either little or not at all. They are frequently left out of discussions, debates, and consultations on a range of topics pertaining to the general public interest.

- **Lack of accountability and transparency:** RUPP has problems with accountability and transparency in their operations because of their inadequate internal democracy, organisational structure, and financial management. They are frequently charged with money laundering, tax evasion, engaging in unlawful activity, defecting, merging, or splitting.

### How election symbols are allocated to political parties in India?

#### Responsibility of ECI –

- The assignment of symbols is the responsibility of the Election Commission of India (ECI).
- The Election Symbols (Reservation and Allotment) Order, 1968 regulates this.
- This regulation aims to specify, reserve, select, and distribute symbols during elections in Assembly and Parliamentary Constituencies in order to acknowledge political parties.
- Symbols can be classified as “free” or “reserved,” which indicates they are only available to recognised political parties. If a political party satisfies specific requirements, it may be acknowledged as a national or state party.
- By publishing a notice in the Indian Gazette, the EC makes lists of the parties and their emblems available.

#### Unrecognised political party and election symbol-

Candidates of unregistered parties can choose from a variety of free, non-exclusive symbols. After party selection, these symbols are proclaimed free for use by others in subsequent elections.

#### Recognised parties and election symbol-

Exclusive symbols are awarded to recognised national and state parties.

#### Unregistered parties and election symbol-

- These are expected to give the names of ten symbols, in order of choice, from the commission's list of free symbols.
- As per the 1968 ruling, parties may also suggest

three new symbols of their choice, with names and clear design and drawings, in the order of preference.

- The Commission may therefore examine these symbols for allotment as its common symbol if there is no obstacle in its opinion to allocating such symbols.
- Symbols offered by the parties should bear no resemblance to current reserved or free symbols, nor should they have any religious or communal connotation, nor should they portray any bird or animal.

#### Previous developments regarding RUPPs:

- To ensure transparency, the EC directed in 2014 that RUPPs seeking to use a common symbol submit proof of having filed up-to-date contribution reports, audited annual accounts, updated election expenditure statements, and their most recent organisational details.
- By 2022, the ECI had delisted 86 non-existent RUPPs and designated another 253 to be “inactive RUPPs.”

#### Conclusion

RUPP are an essential component of Indian democracy because they represent the different voices and perspectives of the people. They also contribute to the political system's energy and vigour. They do, however, encounter a number of problems and issues that impede their functioning and effectiveness. As a result, it is important to strengthen their registration and regulating procedure, enhance their privileges and advantages, encourage coalition and cooperation, and promote their internal democracy and governance.

## POLICE REFORMS

#### Why in the News?

The Prime Minister of India recently attended the 58th All-India Conference of Director Generals and Inspector Generals of Police in Jaipur, Rajasthan.

The conference covered a wide range of policing and internal security topics, including cybercrime, technology in policing, counterterrorism challenges, left-wing extremism, and prison reform.

### About 58th Conference of Directors General of Police/Inspectors General of Police

- The three-day conference, held in a hybrid style in Jaipur, Rajasthan, held from January 5 to 7, 2023. The Conference was attended physically by approximately 100 invitees, including DGPs of states/UTs and Heads of Central Armed Police Forces and Central Police Organisations. The remaining invitees joined electronically from across the country.
- The conference is the result of intensive discussions among police and intelligence professionals at the district, state, and national levels on specific issues. The Intelligence Bureau organised the event at the Rajasthan International Centre in Jhalana.

### Key Highlights of PM Modi's Speech

- **New Criminal Laws:** The Prime Minister emphasised the importance of a justice system that prioritises citizen dignity, rights, and justice, shifting away from punitive measures and towards data-driven initiatives. He emphasised the significance of informing women and girls about their rights under the new rules, and urged the police to safeguard their safety and freedom to work fearlessly at any time and from any location.
- **Keep Abreast of the Modern World:** He aimed to transform the Indian police force into a contemporary, world-class force that aligns with the country's expanding worldwide profile and contributes to the goal of a developed India by 2047.
- **Image of Police:** The speaker emphasised the importance of improving residents' perceptions of the police and suggested using social media to spread good messages. Additionally, he recommended using social media for catastrophe notifications and relief efforts.
- **Bond Between Citizens and the Police Force:**

He pushed for organising sporting events to build the relationship between civilians and the police force. He additionally urged government officials to maintain their positions in border villages to build stronger ties with the local population.

### Issues Regarding Police Forces

- **Custodial Deaths:** Custodial deaths occur when a person dies while being detained by law enforcement. As per the National Crime Records Bureau (NCRB), the number of such custody deaths decreased over three years, from 146 in 2017-18 to 100 in 2020-21, but then increased sharply to 175 in 2021-22.
- **Using Inappropriate Force:** Excessive force by police has been documented, resulting in injuries and fatalities. Lack of sufficient training and oversight contributes to the use of force in some circumstances. A policeman is a public servant and is therefore expected to treat its inhabitants lawfully.
- **Colonial Legacy:** Following the uprising in 1857, the British passed the Police Act of 1861 to modernise the nation's police system and put an end to any more uprisings. This implied that the police had to always submit to those in authority.
- **Operational Freedom vs. Accountability to the Political Executives:** The 2nd Administrative Reforms Commission (ARC) has observed that the political executive has previously abused its power to improperly influence police personnel and force them to serve personal or political agendas.
- **Corruption:** The public's faith is weakened by police corruption, which includes bribery and other types of misbehaviour. There have been instances where senior police officers have been exposed for corrupt activities, and there have also been instances where lower-level police officers have been exposed for receiving bribes.
- **Overburdened Force:** There are 137 police officers, compared to the approved 181 officers per lakh population. When compared to the United Nations' recommended requirement of 222 police

per lakh population, this is far too low. Furthermore, an already-existing issue of overworked police officers is made worse by a large percentage of open positions in the police departments.

### Various Recommendations for Police Reforms

- **Supreme Court's Directives in Prakash Singh Case:**

### Directives of Supreme Court in Prakash Singh Case

- 1. **Constitute a State Security Commission**
- 2. **Fixed two-year tenure for DGP**
- 3. **Two-year term for SPs & SHOs**
- 4. **Separate Investigation and L&O functions**
- 5. **Set up Police Establishment Board**
- 6. **Set up Police Complaints Authorities at State & Dist levels**
- 7. **Set up National Security Commission at Centre level**



- **Recommendations of the National Police Commission:** The National Police Commission (1977–1981) in India provided reform proposals for the police, highlighting the importance of accountability and functional autonomy.
- **Ribeiro Committee:** The Ribeiro Committee was established in 1998 at the Supreme Court's request to examine police reform initiatives and offer suggestions on how to put the Commission's findings into practice. With some changes, the Ribeiro Committee adopted the National Police Commission (1978–82) main recommendations.
- **Malimath Committee:** The establishment of a central law enforcement agency was one of the 158 proposals given by the V.S. Malimath-led Malimath Committee on Reforms in the Criminal Justice System, which was established in 2000.
- **Model Police Act:** The Model Police Act, 2006

mandates that every state form an authority composed of civil society members, retired police officers, retired High Court judges, and public officials from another state. It emphasised the police agency's functional autonomy, promoted professionalism, and emphasised the need of accountability for both behaviour and performance.

- **Smart Policing:** The Prime Minister introduced the idea of SMART Policing at the 2014 DGP/IGP Conference in Guwahati. In general, smart policing refers to interventions that apply data-driven and evidence-based policing techniques, methods, and tactics to prevent and control. **SMART policing means –**
  - Strict and sensitive,
  - Modern and mobile,
  - Alert and accountable,
  - Reliable and responsive,
  - Techno-savvy and trained

### Conclusion:

The constraints of the political and social structure in India are manifested in the problems with the police. Therefore, it is necessary to implement police reforms and provide incentives for police agencies to implement best practices. In addition, it is imperative that an atmosphere be created as soon as possible that allows the police to serve the public as a tool.

### LANCET REPORT ON THE ISSUE OF CHILD MARRIAGE IN INDIA



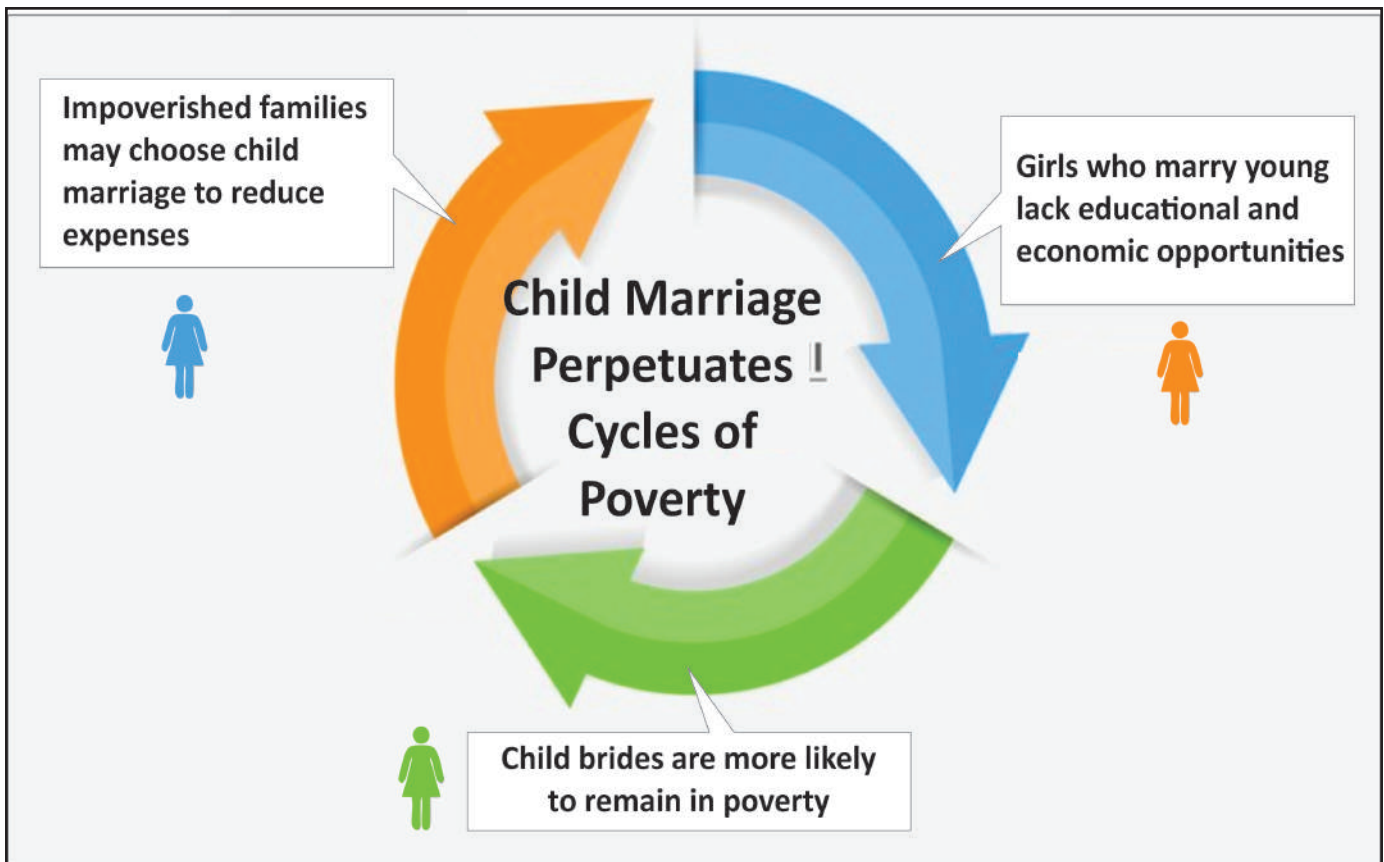
### Why in the News?

A study published in the Lancet sheds light on the persistent problem of child marriage in India, where it is particularly common in regions like West Bengal. It is well known that child marriages are common in Bihar, West Bengal, Uttar Pradesh, and Maharashtra, especially among females.

### What does the report say ?

- Between 1993 and 2021, the number of girl child





marriages decreased in all states but Manipur.

- Researchers found that in 2021, there were 13,464,450 child marriages for girls and 14,54,894 for boys.
- According to the report, one in five Indian females gets married before they are legally allowed to do so, with significant state-by-state variations.
- Over 500,000 more females have been married as minors in West Bengal, where there has been a notable rise in child weddings.
- The researchers conclude that in order to end child marriage by 2030, there is still a pressing need for improved national and state-level policies. Scholars have observed significant differences in the frequency of child marriages between girls and boys among the states and Union Territories under investigation.
- The state with the biggest absolute rise is West Bengal, which had nearly 500,000 more girls get married as children.

#### Impact of Child marriage –

- Girls and boys who get married young are prone to lack the skills, knowledge, and work opportunities needed to assist their families transcend poverty and contribute to their country's social and economic growth.
- The overall fertility rate of women is elevated by 17%, causing harm to developing nations grappling with rapid population expansion.
- Child marriage is seen as a kind of sexual and gender-based violence and as a violation of human rights. West Bengal has one of the highest rates of child marriages in Murshidabad, one of the State's economically disadvantaged districts.
- Maternal and child health are negatively impacted by child marriage. In the course of a single day, 10 infants passed away at Murshidabad Medical College and Hospital. A large number of the infants were born with exceptionally low birth weights, according to hospital authorities.

### Reasons for the incidence of child marriage in India

- **Lack of education:** Education is a major driver of marital age. As per NFHS-4, approximately 45% of women with no education and 40% of women with primary education married before the age of 18.
- **Poverty:** In terms of economic position, women from low-income families marry earlier. While more than 30% of women in the poorest two wealth quintiles were married by the age of 18, only 8% in the richest quintile.
- **Social background :** Child marriages are more common in rural regions especially among Scheduled Castes and Scheduled Tribes.
- **Trafficking:** Poor families are lured to sell their daughters into prostitution rather than marriage since the transaction allows enormous sums of money to benefit the girl's family while harming the girl. There is apathy towards their daughters, and the proceeds from the sale of their daughters are used to help their boys.
- Girls are frequently viewed as a burden with poor economic potential. Women's work is limited to the home and is undervalued. Furthermore, there is the issue of dowry. Although dowry has been illegal in India for over five decades (Dowry Prohibition Act, 1961), it is nevertheless typical for parents of females to offer presents to the groom or his family, in cash or in goods. The dowry sum rises with the girl's age and academic level. As a result, the "incentive" of the dowry system fosters child marriages.

### Government measures to curb child marriages

- **Prohibition of Child Marriage Act, 2006:** This Act superseded the Child Marriage Restraint Act of 1929, which was passed during the British reign. It defines a child as a male under the age of 21 and a female under the age of 18. According to the Majority of Act, a "minor" is someone who has not reached the age of majority. It proposes punishing child marriage with two years of harsh jail and/or a fine of Rs. 1 lakh. The Act also calls for the establishment of a Child Marriage Prohibition Officer, whose job it is to prevent child weddings and raise

awareness about them.

- The Prohibition of Child Marriage (Amendment) Bill, 2021 proposes raising the legal marriage age for women from 18 to 21 years.

### Plans/Policies to Prevent Girl Child Marriage

- **SSY (Sukanya Samridhi Yojana):** Sukanya Samridhi Yojana (SSY) was established in 2015 to enhance the welfare of girls. It inspires parents to invest in and plan for their daughters' schooling and marriage expenses in the future.
- **Balika Samridhi Yojana:** Another central government plan to assist girls in financially challenged areas of society is the Balika Samridhi Yojana. This programme ensures the enrollment and retention of female students in primary and secondary institutions.

It strives to improve the well-being of a girl's child by providing a higher-quality education.

### Initiatives in Bengal –

- **Kanyashree Prakalpa initiative:** A conditional donation initiative aimed at supporting teenage girls' education and avoiding child marriage.
- **Rupashree Prakalpa:** An economically rewarding scheme for girl marriage that occasionally challenges Kanyashree's ideals.

### Measures needed to be taken

- **Education :** It is one of the most successful methods of protecting minors from marriage. When girls are allowed to continue in school, an attitude shift towards their community chances might emerge.
- **Empowerment of girls:** Every girl child should have access to life skills, protection skills, higher education, and employment prospects. Girls' primary and secondary education should be encouraged.
- **Bringing together child protection workers:** One strategy to keep child marriages under control during the pandemic would be to have a robust cohort of child protection workers among vital health staff. In these difficult times, India has a ro-

bust system of grassroots workers who have done a great job in ensuring that health and other social security services reach people. If such personnel were integrated into the system, they could monitor girl youngsters at danger of early marriage and take preventative measures.

### Conclusion

Despite regulatory measures, child marriage remains a major issue in India, particularly in districts such as West Bengal. While programmes like Kanyashree and Rupashree seek to address the problem, combining incentives with tough law enforcement is critical. To effectively oppose child marriage and defend the rights of young girls, a concerted effort involving all stakeholders, as well as a strong political commitment, is required.

**UPDATED PHARMA MANUFACTURING RULES UNDER SCHEDULE M OF DRUGS AND COSMETIC RULES, 1945**



### Why in the News?

The Ministry of Health and Family Welfare (MoHFW) notified the updated rules under Schedule M of the Drugs and Cosmetics Rules, 1945, in the Gazette of India in order to improve conformity to quality standards. Schedule M defines good manufacturing practices (GMP) for medicinal products.

### What are Good Manufacturing Practices (GMP)?

In India's pharmaceutical business, Good Manufacturing Practices (GMP) are regulatory norms and standards defined by the Central Drugs Standard Control Organisation (CDSCO) and the World Health Organisation (WHO). GMP guarantees that pharmaceutical goods are produced and regulated in a consistent manner to fulfil the quality requirements necessary for their intended use. GMP was first included in "Schedule M of the Drugs and Cosmetics Rules 1945" in 1988, with the most recent update in 2005. Here are some important characteristics of GMP in the Indian pharmaceutical industry:

- **Quality Management System (QMS):** GMP compliance requires a strong quality management system. Proper Documentation, control of

quality, quality assurance, and a dedication to continual development are all part of this.

- **Premises and Equipment:** GMP rules require pharmaceutical manufacturing plants to have appropriate and well-maintained sites and gears. The facilities' design and layout should limit cross-contamination and make thorough cleaning easier.
- **Documentation and record keeping:** Thorough and accurate documentation is an absolute must. This comprises batch records, standard operating procedures (SOPs), validation records, and other manufacturing-related documents.
- **Personnel:** GMP compliance requires adequately trained and competent personnel. GMP principles, hygiene standards, and particular procedures related to their roles should all be covered in training programmes.
- **Production and Process Control:** Pharmaceutical manufacturing processes must be well defined and regulated, according to GMP norms. This includes using tested methods, monitoring crucial parameters, and handling raw materials and finished products properly.
- **Quality control mechanisms** must be in place in order to guarantee the quality of raw materials, intermediary compounds, and finished products. This includes testing, sampling, and evaluation in accordance with established processes.

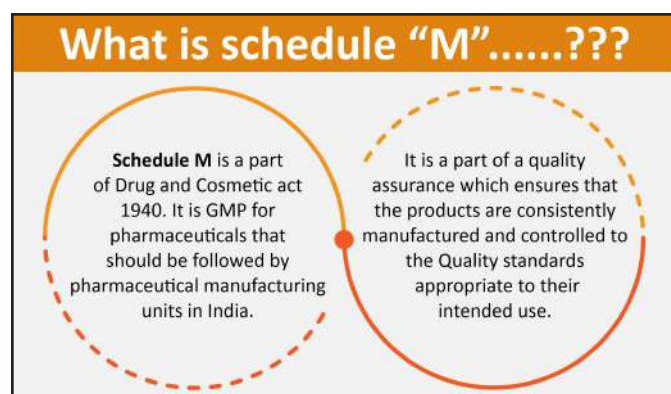
### What is the Need for the Revised Rules of the Schedule M of Drugs

- This would put India's GMP standards in line with worldwide standards, particularly those set by WHO, and assure the production of drugs of globally acceptable quality
- Previously, the Ministry established a 6-month timetable for small firms and a 12-month deadline for large units to get WHO-GMP certification.
- In order to keep up with the rapidly changing manufacturing and quality domains, it was necessary to revisit and amend the GMP principles and concepts mentioned in the present Sched-

ule M.

### Amendments to the Revised Schedule M Drug Rules are –

- The changes addressed in the updated Schedule M include the addition of –
  - Pharmaceutical quality system (PQS)
  - Quality risk management (QRM)
  - Product quality review (PQR)
  - Qualification and validation of equipment
  - Computerised storage system for all drug products.



- The updated Schedule M is divided into 13 components that give GMP standards for the specific requirements for pharmaceutical medication manufacture.
- The emphasis will fall on risk management, equipment's qualification and validation, and self-inspection will be critical contributions.
- Manufacturers are obligated to assume responsibility for the quality of pharmaceutical products to make sure that they are fit for their intended use, meet licence requirements, and do not endanger patients due to insufficient safety, quality, or potency.
- Five new medication categories have been included in the amended regulations. These categories include pharmaceutical items that contain dangerous materials such as sex hormones, anabolic and androgenic steroids, cytotoxic compounds, biological products, and radiopharmaceuticals.
- Only after tests on the ingredients show "satisfactory results" then only companies go forward with marketing the final product.

isfactory results" then only companies go forward with marketing the final product.

- The amended guidelines will be applied based on firm turnovers, Medium and small manufacturers (with an annual turnover of less than 250 crore) required to apply the revised rules within 12 months of their publication date. Large producers with an annual revenue of more than 250 crore will have six months to comply.

### The importance of Schedule M Revision:

- This will raise and upgrade the manufacturing standards of medicines, bolstering the Indian industry's reputation and boosting patient results. This will help Indian manufacturers in exporting.
- It will help in ensuring compliance with international quality standards, benefiting both the patients and the industry by encouraging the production of safe, effective, and
- The emphasis on risk management, equipment qualification and validation, and self-inspection will be critical contributions.

### JUSTICE BR GAVAI TO LEAD SUPREME COURT LEGAL SERVICES COMMITTEE (SCLSC)

#### Why in the News?

The appointment of Supreme Court Justice BR Gavai to lead the Supreme Court Legal Services Committee (SCLSC) has been made.

#### What is the Supreme Court Legal Services Committee?

- It was established in accordance with Section 3A of the Legal Services Authorities Act of 1987.
- Its aim was to give "free and competent legal services to the weaker sections of society" in cases coming under the purview of the Supreme Court.
- The committee must be formed by the Central Authority (the National Legal Services Authority or NALSA), in accordance with Section 3A of the Act.



- **Composition:** (a) It is chaired by a current Supreme Court judge and comprises other members who meet the Centre's requirements for experience and qualifications. (b) The Chief Justice of India (CJI) will nominate the Chairman and the other members. Additionally, the Secretary may be appointed to the Committee by the CJI. (c) In turn, the Committee, after consulting with the CJI, may designate officers and other staff members as directed by the Centre. (d) The SCLSC members' numbers, backgrounds, and qualifications are described in Rule 10 of the NALSA Rules, 1995. (e) In accordance with Section 27 of the 1987 Act, the Centre may issue regulations by notification to implement the Act's provisions after consulting with the CJI.
- **Responsibility of centre :** In accordance with Section 27 of the 1987 Act, the Centre can issue regulations by notification to implement the Act's provisions after consulting with the CJI.

#### Need for legal services :

- **Provisions in Constitution :** According to Article 39A, the government is required to ensure that the rule of law provides equal opportunity and promotes justice for all. It places a strong emphasis on offering free legal assistance via laws, programmes, or other channels so that all individuals, irrespective of financial or other obstacles, can obtain justice.
- Justice and equality before the law must be guaranteed by the state.
- The State must provide equality before the law and a judicial system that upholds justice based on equal opportunity, according to **Articles 14 and 22(1)**. **Article 14:** Equality is a right, **Article 22 (1)** – Right to know the reasons behind an arrest.
- According to **Article 39A** of the Indian Constitution, the State shall guarantee that the judicial system operates in order to encourage justice on the basis of equal opportunities. Specifically, the State must offer free legal aid, by appropriate legislation or schemes or in any other way, to ensure that no citizen's opportunity to se-

cure justice is denied due to their financial or other disability.



# NALSA

NATIONAL LEGAL SERVICES AUTHORITY

- The National Legal Services Authority (NALSA) has been constituted under the Legal Services Authorities Act, 1987 to provide free Legal to the weaker sections of the society and to organize Lok Adalats for amicable settlement of disputes.
- In 1987, the Legal Services Authorities Act was passed by the Parliament which came into force on 9th November, 1995 with an object to establish a nationwide uniform network for providing free and competent legal services to the weaker sections of the society on the basis of equal opportunity.
- The National Legal Services Authority (NALSA) has been constituted under the Services Authorities Act, 1987 to monitor and evaluate implementation of legal services available under the Act.
- The Act empowers the State to establish a Four Tier System of providing speedy and informal justice at the National, State, District and Taluk Levels.

#### About Legal Services Authorities Act :

- The Legal Services Authorities Act was passed in 1987 in order to provide legal aid programmes with a statutory foundation. It seeks to offer qualified and cost-free legal services to qualified populations, such as women, kids, members of the SC/ST and EWS categories, industrial workers, people with disabilities, and others.
- **NALSA:** (a) NALSA was established under the Act to oversee and assess the execution of legal aid initiatives and to provide guidelines for providing legal services. (b) The Act envisions a national network for the provision of legal aid and support. Additionally, it gives money and grants to NGOs and State Legal Services Authorities so they can run legal aid initiatives and schemes. (c) The major patron of NALSA is the Chief Justice of India.

- **Legal Service Authorities at state and district level:**
  - State Legal Services Authorities (**SLSA**) were set up to carry out Lok Adalats, provide free legal services to the public, and carry out NALSA's policies and directives. The senior HC judge serves as the Executive Chairman of an SLSA, which is led by the Chief Justice of the relevant High Court.
  - Most taluks and districts have created Taluk Legal Services Committees and District Legal Services Authorities (**DLSAs**). Every district's district judge chairs each DLSA, which is housed in the District Courts Complex in that district. A senior civil judge leads the Taluka or Sub-Divisional Legal Services Committees.

### Qualification for Free Legal services

- Women and children
- Victims of Human Trafficking or begar.
- victims of industrial disasters, mass catastrophic events, floods, droughts, and violent crimes..
- Disabled persons
- Members of SC/ST
- Industrial workmen
- Persons in custody

### Initiatives taken for free legal aid:

- **Legal Services Mobile App:** NALSA has released the Legal Services Mobile App on both Android and iOS platforms to make it simple for regular people to obtain legal aid in order to promote fair access to justice.
- **DISHA scheme:** Through the scheme called "Designing Innovative Solutions for Holistic Access to Justice (DISHA)," which will be executed from 2021 to 2026, the Department of Justice (DoJ) has started a complete, holistic, integrated, and systemic solution on access to justice at the national level in all of India. The Access to Justice Programmes have been upgraded to the national level and combined under the DISHA

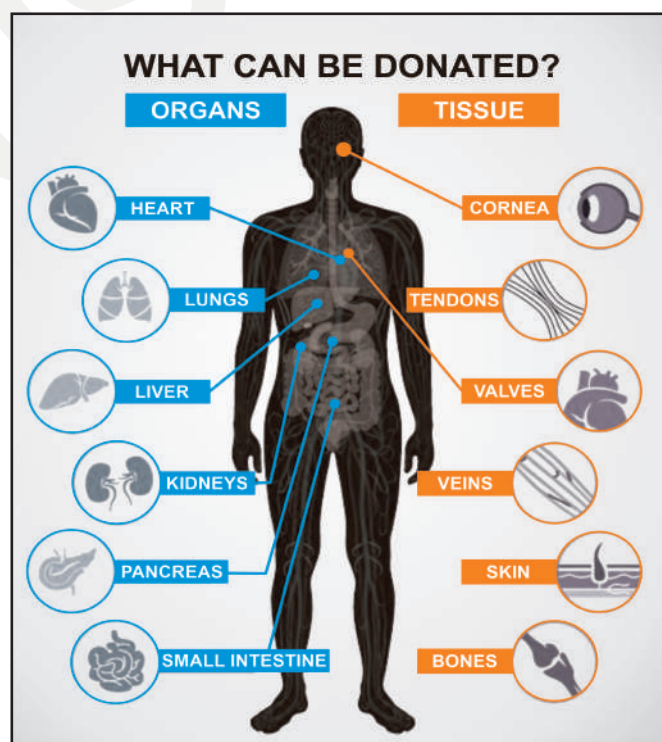
plan.

## DELHI HC PRESCRIBED REGULATION ON TRANSPLANTATION OF ORGANS

### Why in the News?

The Delhi High Court recently had prescribed a 6-to 8-week time for the procedure of transplanting organs from donors who are alive. Long waits, per the High Court, can inflict tremendous both mental and physical agony for donors, recipients, and their loved ones. It asked the Ministry of Health and Family Welfare to guarantee that all phases in the process of assessing organ donation applications are completed within the timeframes provided under the Transplantation of Human Organs and Tissues Act of 1994 and Rules of 2014.

**In India, regulatory systems overseeing organ transplantation are –**



- **Institution :** The National Organ and Tissue Transplant Organisation (NOTTO) is a national organisation that reports to the Ministry of Health and Family Welfare. It not only establishes policy guidelines and norms for various

functions, but it also manages all national organ donation efforts.

- **Legislation** : The government of India approved the Transplantation of Human Organs Act (THOA) in 1994. The Transplantation of Human Organs Rules, which were recently updated in 2014, further expanded the realm of donation and included tissues for transplantation. The act criminalised the selling of organs and legalised the idea of brain death in India, permitting deceased donation by getting organs from brain stem dead individuals.

### What are the rules regarding Organ transplants

The government revised national organ transplantation guidelines in February 2023.

- The new guidelines repealed the 65-year age limit for people seeking organs from a deceased donor.
- Living donor transplants, in which family members donate organs such as kidneys and livers, have no age limit.
- However, according to NOTTO criteria, those over the age of 65 could not register to receive organs from deceased donors.
- It demanded that governments remove the domicile requirement for registering persons who are looking for organs from deceased donors for transplant procedures. A needy person can now go to any state in the nation to register for an organ transplant as well as have the operation performed.
- NOTTO will assign the patient a unique ID upon registration.
- This will be carried over even if the patient transfers to various hospitals in different states.
- Noting that some states demand fees ranging from Rs 5,000 to 10,000 for registering such patients, this advice instructs them not to do so.

### What is Transplantation of Human Organs and Tissues Act, 1994

- In India, this legislation oversees the transfer of

human organs and tissues, including organ donation after death. It establishes regulations for healthcare providers and hospitals, as well as consequences for noncompliance.

- A transplant can come from a collection of organs donated by kin of those who passed away or from a living individual known to the recipient.
- The Act authorises living donations from close relatives such as siblings, parents, kids, partners, grandmothers and grandfathers and grandkids in the majority of situations.
- Altruistic donations from far-flung relatives, the in-laws or long-time friends are permitted after additional inspection to guarantee that no cash transaction takes place.
- Living donations from loved ones, whether Indians or foreigners, must be accompanied by documents proving their names, lineage trees, and photographs proving the donor-recipient link. Donors and recipients both are interviewed as well.
- Unrelated donors must provide documentation and photographic proof of their long-term acquaintance or friendship with the recipient. An external committee examines these to prevent illicit dealings.
- **Punishment** – Offering to pay for organs or supplying them for payment; initiating, negotiating, or publicising such arrangements; looking for persons to supply organs; and assisting in the preparation of fake paperwork are all punishable by “up to ten years in prison and a fine of up to Rs one crore”.
- **Duty of Authorisation committee:**
  - The Authorisation Committee supervises and approves organ transplant procedures involving unrelated donors and recipients. Section 9(5) of the statute requires the Committee to conduct a comprehensive investigation when considering transplant applications.
  - This consent is critical, especially when organs are donated out of love, attachment, or other specific circumstances, to ensure ethical compliance and prevent illegal actions.



- The statute gives the Central Government the authority to determine the makeup of the Authorization Committee. State and Union Territories shall appoint members to one or more Authorization Committees.
- Section 24 of the Act empowers the central government to create rules for carrying out the Act's various purposes, subject to parliamentary approval.

### About 2014 rules

- Rule 7 of the 2014 Rules specifies the composition of the Authorisation Committee as well as the scope of its investigation and evaluation.
- In circumstances where the donor and beneficiary are not close relatives, Rule 7(3) requires the Committee to confirm that no commercial transaction is involved.
- However, Rule 7(5) states that if a recipient is in serious condition and requires transplantation within one week, the hospital can be contacted for an expedited work evaluation.

## PRITHVI VIGYAN SCHEME

### Why in the News?

The Union Cabinet, led by the Prime Minister, has approved the "Prithvi Vigyan (Prithvi)" scheme, an important Ministry of Earth Sciences' project. The initiative has a budget of Rs 4,797 crore and is scheduled to run from 2021 to 2026.

### About PRITHVI Vigyan (PRITHVI) Scheme :

The scheme includes five ongoing sub-schemes, which are as follows:

- **ACROSS:** Atmosphere and Climate Research-Modeling Observing Systems and Services. It focuses on long-term data as well as advanced weather and climate modelling systems. The primary goals of ACROSS are to improve the accuracy and reliability of weather and climate predictions, to understand the underlying

mechanisms of climate variability and change, to monitor and evaluate air quality and its consequences on health and the environment, and to develop and deploy cutting-edge atmospheric research observing systems.

- **O-SMART:** Ocean Services, Modelling Application, Resources, and Technology. It aims for long-term exploration and utilisation of marine resources through the application of cutting-edge technology. O-SMART's main goals are to provide reliable and precise ocean information and advisory services for a variety of sectors such as fisheries, navigation, coastal management, disaster management, and security, to explore and harness ocean resources such as minerals, energy, and biotechnology, to develop and deploy cutting-edge ocean technology for observation, exploration, and exploitation, and to improve human resource development and international cooperation in the ocean.
- **PACER :** Polar Science and Cryosphere Research. It seeks to unravel the secrets of the Earth's poles and glacial regions, hence contributing to a better understanding of global climate change. It monitors and predicts changes in the cryosphere and their impact on water supplies and sea level rise, as well as participates in international scientific collaborations and polar regions' management.
- **SAGE:** Seismology and Geosciences. It works to improve earthquake monitoring and research on the solid components of the Earth. It attempts to comprehend the seismicity and tectonics of the Indian subcontinent and its surrounding region, try to figure out the possibility of earthquakes and threat to various regions of India, and to raise the public's awareness about earthquake safety.
- **REACHOUT:** research, education, training, and outreach. It promotes growth of talents and makes sure that the research is effectively translated into services that benefit society. Its objective is to improve the quality and quantity of earth science human resources by various schemes such as grants, financial aid, internships, training programmes, and so on, as well as to foster an environment of innovation



# PRITHvi Vigyan (PRITHVI)

- Cabinet approves overarching scheme "PRITHVi Vigyan (pRITHVI)" of the Ministry of Earth Sciences
- The scheme will be implemented during the period from 2021-26 at an overall cost of **Rs. 4797 crores**



The scheme encompasses **five ongoing sub-schemes.**

- Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS)
- Ocean Services, Modelling Application, Resources and Technology (O-SMART)
- Polar Science and Cryosphere Research (PACER)
- Seismology and Geosciences (SAGE)
- Research, Education, Training and Outreach (REACHOUT)

and entrepreneurship in earth sciences through multiple channels such as incubation centres, hackathons, challenges, and so on.

## Major objectives of the Scheme are –

- Long-term observations of the atmosphere, ocean, geosphere, cryosphere, and solid earth to record the vital signals of the Earth System and change.
- Developing Modelling systems for understanding and predicting weather, ocean, and climate risks, as well as understanding the science of climate change.
- Exploration of the Earth's polar and high seas regions in search of new phenomena and resources.
- Technology development for the investigation and sustainable utilisation of oceanic resources for societal purposes.
- Knowledge and ideas from Earth systems science are translated into services for societal, environmental, and economic benefit.

## Significance

These integrated research and development efforts will assist in the study of the earth system sciences through all five components of the earth system (weather, climate, ocean, cryosphere, and seismological science).

- Analyse the living and non-living resources for their long-term utilisation.
- It would enable the development of integrated multidisciplinary earth science research and innovative programmes across various MoES institutes.
- The research programme intends to help a variety of industries, from environmental conservation and resource management.
- PRITHVI's focus encompasses the Earth's different dynamic systems, from atmospheric conditions to seismic activity.

## Ministry of Earth Sciences :

- It is responsible for transforming science into societal services, by giving services in the climate, weather, ocean and coastal state, hydrology, seismic research, and disasters.

- It also examines and utilises marine resources in a sustainable manner, as well as exploring the Arctic, Antarctic, and Himalayan poles.
- MoES provides meteorological forecasts, natural disaster warnings, tsunami alarms, and earthquake surveillance.
- These services are used efficiently by organisations and state governments to protect lives while minimising property damage caused by disasters.

### Conclusion :

PRITHVI is an ambitious initiative that would boost India's skills in Earth systems science while also providing vital contributions for policy development, planning, and development. It will also aid in global efforts to address climate change and natural disasters.

## ANGANWADI CENTRES



### Why in the News?

Andhra Pradesh's anganwadi workers are on strike in protest of their pay and benefits. The protesting Anganwadi staff and assistants have been subject to legal action by the State government under the Essential Services and Maintenance Act (ESMA), 1971.

### About ICDS Scheme

- The Integrated Child Development Services (ICDS) initiative is the Government of India's flagship programme dedicated to fostering the holistic development of children under the age of six, pregnant women, and breastfeeding mothers.
- ICDS, founded in 1975,

represents a holistic strategy to meet the complex needs of early children development, maternal health, and nutrition.

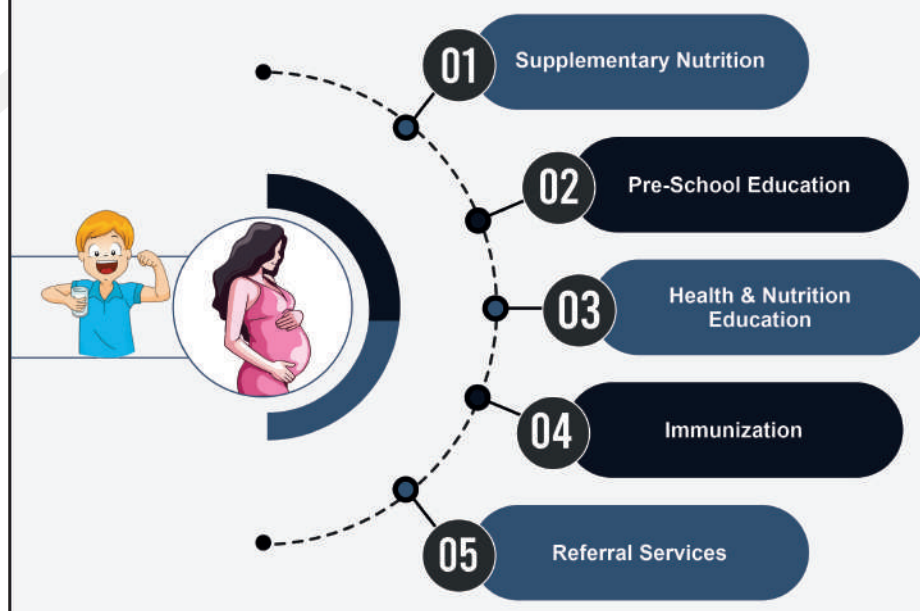
- The ICDS scheme's key goals include improving children's nutritional and health status, lowering infant and maternal mortality rates, and promoting early children's learning and cognitive development.
- The concept acknowledges the crucial role of the first six years in forming a child's physical, cognitive, and socio-emotional development, setting the groundwork for their future well-being.

### Anganwadi Centres

- The **anganwadi centres**, which are administered under the Integrated Child Development Services system, are the village's first point of contact for nutrition, health, and early learning.
- Anganwadis are centres for early childhood care and education (ECCE). They additionally offer basic health-care services in Indian villages. It is part of India's public healthcare system.
- **Anganwadi staff and helpers**, who are generally local women, play an important role in

## Integrated Child Development Services (ICDS) Scheme

Serving Children of 0-6 years and Pregnant & Lactating Mothers



service delivery and community reform. The ICDS scheme encourages participation from the community by including local leaders and volunteers in service planning and monitoring, resulting in a community-driven project.

### Importance of Anganwadi Schemes

- **Holistic Development:** Anganwadi centers serve as community hubs that offer a range of essential services, including supplementary nutrition, immunization, health check-ups, and pre-school education. By addressing multiple aspects of development, the scheme contributes to the holistic growth of children under six years of age.
- **Nutritional Support:** One of the primary objectives of the Anganwadi Scheme is to combat malnutrition. The centers provide supplementary nutrition to pregnant women, lactating mothers, and young children, ensuring they receive the essential nutrients for optimal growth and development.
- **Maternal and Child Health:** Through regular health check-ups, immunization programs, and antenatal care, Anganwadi workers play a vital role in monitoring the health of pregnant women and children. This proactive approach helps in reducing infant and maternal mortality rates and addressing health-related concerns at an early stage.
- **Early Childhood Education:** The Anganwadi Scheme places a strong emphasis on early childhood education. Anganwadi workers conduct pre-school activities that focus on cognitive, social, and emotional development, preparing children for formal schooling. This early stimulation is crucial for laying a strong foundation for lifelong learning.
- **Poverty Alleviation:** By addressing the health and nutritional needs of vulnerable populations, particularly in rural and marginalized areas, the Anganwadi Scheme contributes to poverty alleviation. Healthy and well-nourished children are more likely to perform better in school and, later in life, break the cycle of poverty.
- **Community Engagement:** The scheme promotes community participation and empowers local communities. Anganwadi workers, often recruited from the local community, act as a bridge between the government and the community, facilitating awareness and participation in health and development programs.
- **Women Empowerment:** Anganwadi workers, predominantly women, are provided with employment opportunities through the scheme. This not only addresses the issue of unemployment but also empowers women by providing them with a platform to contribute meaningfully to the well-being of their communities.

### Challenges Faced by Anganwadi Centres

- **Nutrition and Health Challenges:** Ensuring regular and adequate supply of nutritious meals and supplements is a persistent challenge. Supply chain issues, delays in procurement, and lack of awareness among beneficiaries about the importance of nutrition contribute to difficulties in achieving desired health outcomes.
- **Infrastructure and Resource Constraints:** Many Anganwadi centers operate in inadequate or substandard facilities, lacking proper infrastructure. Insufficient space, lack of amenities, and inadequate equipment hinder the quality of services provided. Limited resources, including funds and materials, often compromise the centers' ability to function optimally.
- **Quality of Early Childhood Education:** While Anganwadi centers are meant to provide pre-school education, the quality of early childhood education can vary. Insufficient training for Anganwadi workers in educational methodologies, lack of educational resources, and limited focus on skill development can affect the learning outcomes of children.
- **Shortage of Human Resources:** Anganwadi workers and helpers, who are pivotal to the functioning of these centers, often face challenges such as understaffing and inadequate training. The workload can be overwhelming, making it difficult for them to deliver services effectively. Additionally, there may be a lack of



qualified personnel to handle specialized tasks like early childhood education.

- **Community Participation and Awareness:** Limited community involvement and awareness about the services offered by Anganwadi centers pose a challenge. Mobilizing communities to actively engage with the centers and understand the importance of early childhood education, health check-ups, and nutrition remains a continuous struggle.
- **Monitoring and Evaluation:** There is a need for robust monitoring and evaluation mechanisms to assess the impact and effectiveness of Anganwadi services. Insufficient data collection, monitoring, and evaluation processes may hinder the ability to identify gaps and make informed policy decisions for improvement.
- **Technological Integration:** The lack of technological integration in managing data, monitoring services, and communication hampers the efficiency of Anganwadi operations. Introducing technology-driven solutions could enhance record-keeping, reporting, and overall management of the centers.

#### Remedies to Deal with Issues in Anganwadi Centres

- **Infrastructure Improvement:** Invest in upgrading the infrastructure of Anganwadi centers, ensuring they have adequate space, amenities, and necessary equipment for effective service delivery.
- **Technological Integration** Introduce technology-driven solutions for record-keeping, reporting, and communication. Implement digital tools for data management, attendance tracking, and resource allocation.
- **Human Resource Strengthening:** Recruit and train additional staff to address understaffing. Provide regular training programs for Anganwadi workers and helpers, focusing on early childhood education, nutrition, and healthcare.
- **Capacity Building for Women Empowerment:** Implement programs that focus on empowering women within the community. Provide skill de-

velopment and training opportunities for women to actively participate in the management and decision-making processes of the centers.

- **Community Engagement and Awareness:** Conduct community awareness programs to educate parents and caregivers about the importance of Anganwadi services. Encourage active participation and involvement in monitoring and supporting the centers.
- **Monitoring and Evaluation Mechanisms:** Establish robust monitoring and evaluation mechanisms to track the performance of Anganwadi centers. Implement data-driven decision-making processes for timely identification of issues and informed policy decisions.

### ASER 2023

#### Why in the News?

The Annual Status of Education Report (ASER) 2023, themed 'Beyond Basics', was recently issued. It was based on a study conducted in 28 districts across 26 states, with a total of 34,745 youngsters aged 14 to 18.

#### About Annual Status of Education Report

- ASER is a comprehensive survey conducted annually in India by Pratham, a non-profit organization. It provides a detailed understanding of the educational landscape, focusing on learning outcomes and infrastructure at the grassroots level. ASER primarily focuses on rural areas, covering children aged 3 to 16.
- The report uses rigorous methodology, including extensive fieldwork, to gather data on various aspects of education. It emphasizes assessing foundational skills like reading and arithmetic at the grassroots level, providing insights into children's learning levels.
- ASER findings often reveal disparities in learning outcomes among different states and regions. The report serves as a tool for policymakers, educators, and stakeholders to identify areas



needing attention and allocate resources.

- It also includes information on school infrastructure, teacher attendance, and other factors influencing the learning environment. ASER has played a pivotal role in creating awareness about the state of education in India and promoting reforms.

### Findings of the Aser 2023

#### Status of Youth Activities

Across all enrolment groups, more females than boys were conducting home labour on a daily basis. Overall, the gap is almost 20 percentage points. The majority of youth engage in non-household activities, whether male and female, labour on family farms. It was observed that more males (40.3%) than females (28%) had worked outside of the home for more than 15 days. Approximately 30% of youth labour for their parents.

- Aspirations:** According to the poll, the two most popular options among teenage boys/young men in the sample are army (13.8%) and police (13.6%).
- Enrollment Gap:** In general, 86.8% of 14-18-year-olds have been enrolled in a school or college. Although the gender discrepancies in enrollment are minimal, there are significant differences by age. The rate of unenrolled children is 3.9% for 14-year-olds and 32.6% for

18-year-olds.

- Stream Selection:** The majority of individuals in this age bracket choose to study Arts/Humanities. More than half of Class XI or higher students are enrolled in the Arts/Humanities stream (55.7%), whereas girls are less likely than males to be enrolled in the STEM (Science, Technology, Engineering, and Mathematics) stream (28.1%).
- Evaluation of Basic Skills and Literacy Levels:** Approximately 25% of this age group is unable to read a standard II-level text proficiently in their regional language. Across enrollment groups, girls (76%) outperform males (70.9%) when reading a Std II level text in the participant's regional language.
- English Reading Skills:** Approximately 57.3% are capable of reading English sentences. Almost three-quarters (73.5%) of people who are proficient in English can comprehend what the sentences imply.
- Division Problems:** More than half of 14-18-year-olds struggled with division (3-digit by 1-digit) problems, with just 43.3% able to solve them correctly. In 2017, 39.5% of kids could solve a basic (grade 3-4 level) division problem, but by 2023, this proportion had increased to 43.3%.
- Use Of Smartphones:** Around 89% of indi-

Youth aged 14-18 enrolled in some formal education institutions	86.8%
Youth enrolled in vocational training or other courses	5.6%
Engaged in some work (other than household work) for at least 15 days in the month to the survey	33.7%
Read at least a Std II level text in the ASER reading test	73.6%
Out of those who could read at least a Std I level text, % that could read text on a medicine packet and answer at least 3 out of 4 related questions	65.1%
Could do at least division in the ASER arithmetic test	43.3%
Could read at least sentences in the ASER English test.	57.3%
Could do the tasks of everyday calculations	48.4%
% of youth surveyed with Smartphone at home	89.0%
% of youth surveyed being able to use Smartphone	92.1%
Of those who can use a smartphone, % who have their own smartphone	31.1% (43.7% Male; 19.8%)
Smartphone user who used it for some education related activity in the reference week	66.1%

viduals polled owned a smartphone in their home, and 92% showed that they understood how to use one, indicating a trend that has gained traction in the epidemic years and beyond. Males, on the other hand, were more than twice as likely as females to acquire a smartphone, implying that they spent considerably longer using the device for a broader range of functions.

### Recommendations by Aser Report

- **Vocational Education:** Policymakers should re-imagine vocational education as the NEP envisions, making it truly aspirational.
- **Tapping Demographic Dividend:** The ASER research provides valuable insights into how a country might use education to harness its demographic dividend, as it emphasises an age group that is essential for unlocking the demographic dividend.
- **Developing Individual Capabilities:** According to the research, there is a change from a curriculum-centered approach to one that focuses on the individual learner. ASER advises altering pedagogical practices to alleviate student stress. The usage of digital and other educational capacities by youth could provide cues to policymakers in adopting NEPs.
- **Using Technology:** Growing use of technology provides an opportunity to extend education, and construct classrooms which are flexible with time and schedules. However, planners will need to discover ways to encourage children and parents to use digital devices for learning.
- **Integration with Anganwadi:** According to the research, there is an urgent need for integration between the Anganwadi and school systems to guarantee overall learning development.

### Conclusion

The recently published ASER study focuses on the concerns and challenges that the rural education sector faces. It argued that in order to enjoy the demographic dividend, India must implement judicious reforms to its technical and vocational educa-

tion and training institutions.

## DELHI HC PRESCRIBED REGULATION ON NATIONAL HUMAN RIGHTS COMMISSION (NHRC)

### Why in the News?

#### Background:

- The National Human Rights Commission (NHRC) has responded to a petition by instructing the Union Ministry of Home Affairs and six state governments to furnish information regarding victims impacted by Salwa Judum.
- The petition contended that those displaced and currently residing in forest areas across multiple states have been denied access to crucial welfare schemes. These include essential rights such as land rights, tribal status, social welfare benefits, and entitlements under the Forest Rights Act.
- Salwa Judum, characterized as a group of tribal individuals organized for resistance against outlawed armed Naxalites, was reportedly supported by the government machinery in Chhattisgarh.
- In 2011, the Supreme Court of India ruled against the arming of civilians in this manner, leading to the ban of Salwa Judum. The court directed the Chhattisgarh government to disband any militia force established to counter Maoist guerrillas.

### National Human Rights Commission (NHRC)

- **Establishment and Legal Framework:**
  - The National Human Rights Commission (NHRC) was established in 1993 under the Protection of Human Rights Act, 1993, with a specific focus on safeguarding human rights within the country.
- **Watchdog Role:**
  - Its primary role is that of a vigilant guardian, overseeing and protecting rights associated with life, liberty, equality, and the dignity of

individuals.

- **Composition of NHRC:**

- The NHRC is comprised of a Chairman and five members.
- The Chairman is required to be a retired Chief Justice of India or a judge of the Supreme Court.
- Members include serving or retired judges of the Supreme Court, serving or retired chief justices of High Courts, and three individuals with expertise in human rights, ensuring diverse representation and a minimum inclusion of one female member.

- **Ex-officio Members:**

- Includes chairpersons of various bodies as ex-officio members:
  - National Commission for Minorities
  - National Commission for Scheduled Castes (SCs)
  - National Commission for Scheduled Tribes (STs)
  - National Commission for Women
  - National Commission for Backward Classes
  - National Commission for Protection of Child Rights
  - Chief Commissioner for Persons with Disabilities

- **Functions of NHRC:**

- **Investigation and Prevention:** Enquire into violations of Human Rights or negligence in preventing such violations by public servants.
- **Legal Intervention:** Intervene in legal proceedings involving allegations of Human Rights violations.
- **Prison Visits:** Visit jails and detention centers to assess the living conditions of inmates.
- **Review and Recommendations:** Review constitutional and legal safeguards for human rights,

recommending measures for effective implementation.

- **Addressing Hindrances:** Examine factors like terrorism, naxalism, and militancy hindering human rights, suggesting remedial measures.
- **International Engagement:** Study international treaties on human rights and make recommendations for their effective implementation.
- **Research Promotion:** Undertake and promote research in the field of human rights.

- **Achievements of NHRC:**

- **Mega Projects Intervention:**

- Intervened in cases of displacement due to mega projects, disasters, and conflicts.
- Examined Land Acquisition (Amendment) Bill, 2007, and Rehabilitation and Resettlement Bill, 2007, recommending relief measures for the displaced.

- **Police Force Misuse:**

- Addressed excessive use of police force, particularly in cases involving Adivasis protesting the Narmada Project.
- Recommended relief measures, dropping of charges, and adequate rehabilitation.

- **Suicide Prevention Measures:**

- Took Suo motu cognizance of farmer suicides in Maharashtra.
- Facilitated the formation of committees at the district level to monitor and assist farmers, providing financial assistance and suggesting solutions.

- **Adivasis' Rights Protection:**

- Responded to violence by Maoists and Salwa Judum in Dantewada, Chhattisgarh.
- Directed the examination of human rights violations by Naxalites and Salwa Judum, addressing living conditions in refugee settlement colonies.

- **International Conventions Advocacy:**

- Advocated for the ratification of the UN Convention against torture, emphasizing its importance for human rights in India.

**Issues or Concerns with NHRC:**

- **Recommendatory Nature:**

- The functions of the NHRC are recommendatory, lacking the power to impose punishment for human rights violations.
- Recommendations are non-binding on the concerned government or body.

- **Limited Powers Concerning Armed Forces:**

- NHRC has limited role, power, and jurisdiction in addressing human rights violations by armed forces.

- **Administrative Constraints:**

- As a Paris principle-compliant institution, administrative constraints hinder smooth functioning, lacking required infrastructure.

- **Financial Constraints:**

- The commission relies on grants from the Ministry of Home Affairs (MHA), lacking financial autonomy for effective functioning.

- **Manpower Constraints:**

- Operates below sanctioned strength, resorting to hiring retired government officials due to increasing workload.

- **Lack of Legal Manpower:**

- The law division lacks adequate resources, facing a shortage of trained manpower in the field of human rights.

- **Lack of Suo Moto Uptake:**

- NHRC has been criticized for not taking suo moto action on arrests made under the UAPA law, related to freedom of expression and peaceful assembly.

- **Lack of Diversity:**

- Concerns about limited diversity as the Chairman and members are predominantly from the judicial fraternity, lacking mandatory representation of minorities, SCs, and STs.

- **Political Interference:**

- Composition of the selection committee favors the party in power, raising concerns about potential political interference.

- **Narrow Jurisdictions:**

- NHRC can only investigate complaints registered within 1 year, limiting its jurisdiction.

- **Control of Home Ministry:**

- Under the Home Ministry, NHRC investigating police-related human rights violations may raise concerns about independence.

**Suggestions to Enhance NHRC's Effectiveness:**

- **Constitutional Body Status:** Consider making NHRC a constitutional body, similar to the South African Human Rights Commission.

- **Parliamentary Report Presentation:** Propose tabling NHRC reports in parliament, with the government presenting an action taken report based on NHRC recommendations.

- **Mandatory Time Frame:** Amend the act to include a mandatory time frame for action taken and response formulation on NHRC recommendations.

- **Independent Cadre:** Develop an independent cadre of staff, including legal and human rights experts.

- **Financial Independence:** Provide the commission with financial autonomy to handle increasing workload and responsibilities.

- **Expanded Jurisdiction:** Expand the period of jurisdiction, allowing NHRC to investigate matters older than 1 year.

- **Contempt Powers:** Accord NHRC with contempt powers to ensure the effective implementation of recommendations.



## POST OFFICE ACT 2023

### Why in the News?

- Both Rajya Sabha and Lok Sabha have passed the **Post Office Act, 2023** which seeks to replace Indian Post Office Act, 1898 and simplify the legislative framework to facilitate evolution of India Post into a **citizen-centric service network**.
- This legislation is an attempt to ensure the effective functioning of the Postal Department as a **messenger service and as a provider of banking facilities**.

### Need for New Act?

- 38th Report** of Law Commission on **Indian Post Office Act, 1898** highlighted several concerns such as the Act provides for the interception on the ground of '**public emergency**':
  - Since the term 'public emergency' has not been explicitly defined in the act, it provides a broad basis for interception, thus limiting citizen's **Right to Privacy** (upheld as Fundamental Right under **Article 21** in **Puttaswamy Case 2017**) & suspension of fundamental rights to speech and expression (**Article 19 (1)**).
  - Thus Law Commission recommended that Parliament should amend the existing laws relating to interception to ensure that they adhere to the Constitution.
  - To Replace the **outdated** Indian Post Office Act of 1898
  - To modernize and **enhance the efficiency** of the Postal Department.
  - Addresses the evolving role of post offices, transforming them into **service-delivery institutions** and expanding their functions to **include banking facilities**.
  - To adapt to the changing **demands of the**

**digital era**, ensuring that postal services remain relevant and effective.

- To broaden the **authority of the Director General** of Postal Services beyond mail

### Provisions of the Act:

- Issuance of postal stamp:** India Post will have the **exclusive privilege** over issuing postage stamps.
- Services to be prescribed:** India Post will provide services, as may be prescribed **by the central government**.
- Director General to make regulations:** Provision for the appointment of a Director General, who is authorized to create regulations for all activities essential to postal service provision.
- Power of Interception:** Allows interception of postal articles on grounds such as **state security, friendly relations with foreign states, public order, emergency, public safety**, or contravention of the Act or other laws.
  - Any authorized officer appointed by the central government can conduct interceptions.
- Examination of Postal Article:** Empowers an India Post officer to deliver the postal article to the customs authority or any other specified authority for handling.
- Exemption from liability:** The government is **exempt** from liability for loss, mis-delivery, delay, or damage to postal articles, unless the central government **explicitly assumes liability**.
  - Officers are also exempt, except in cases of fraud or willful misconduct.
- Removal of offence and penalties:** Provide for one offence or consequence that is unpaid amounts can be recovered as arrears of land revenue.

### Issues Associated with the Act:

- High Government Control:** The provision allowing the interception and opening of parcels by

the government may enhance control but also raise potential **issues of privacy and misuse**.

- **Loss of Exclusive Privileges:** The elimination of exclusive privileges for the central government in conveying letters and issuing postage stamps may impact traditional postal services.
- **Liability Concerns:** Shifting liability from the central government to the Post Office for its services may raise questions about accountability and responsibility.
- **Data Privacy and Security:** The expanded interception powers necessitate the establishment of robust data privacy and security measures to safeguard the personal information of postal service users.
- **Differing Legislation for Couriers:** The absence of similar legislation for courier firms raises concerns about regulatory body.

#### Way Forward:

The introduction of the new Post Office Bill (2023) marks a significant step in clarifying vague definitions, particularly regarding what constitutes a 'letter.' The bill's emphasis on digitalization marks a new step forward in the direction of **Digital India**. It also streamlines sorting processes & opens avenues for efficient mail and parcel delivery, including the possibility of **drone deliveries**. Overall, the changes reflect an adaptation to evolving needs, prioritizing legality, and enhancing security in the postal service landscape.

#### Schemes Under Indian Post Office:

- **National Saving Recurring Deposit Account:** Government supervised savings system, requiring a minimum deposit of Rs. 10.
- **National Savings Time Deposit Account:** Offers accounts with varying maturity dates (1, 2, 3, and 5 years) for individuals or groups of up to three persons.
- **Senior Citizen Savings Scheme Account:** Fixed-income investment for individuals over 60, ensuring a steady flow of income after retirement, with a 5-year lock-in term.

- **Public Provident Fund Account:** Long-term investment plan with a 15-year lock-in period, offering a mix of security, earnings, and tax savings.
- **National Savings Certificates (NSC):** Government savings bonds for smaller savings and tax-saving investments, with a 5-year maturity period.
- **Kisan Vikas Patra Account:** Modest savings instrument encouraging long-term savings, doubling the principal in 9 years and 4 months.
- **Sukanya Samriddhi Account.**

#### History of Post in India:

- **1296 CE:** Horse and foot postal system during the rule of **Allauddin Khilji**
- **1341 CE:** Ibn Battuta describes El Wolak (Horse carriers) and El Davah, (foot runners) during the reign of Muhammad Bin Tughlaq (1325-1351 CE)
- **1541 CE:** Sher Shah introduces horse dak on the 2000-mile stretch of road between Bengal and Sind (Grand Trunk Road)
- **1672 CE: Mysore Anche** is established by Maharaja Chikka Devaraya Wodeyar.
- **1766 CE: Robert Clive** sets up a regular postal system
- **1774 CE:** Warren Hastings **organizes** the Post Office
- **1854 CE: Post Office Act XVII** introduced by Lord Dalhousie
- Indian Postal order was established in 1935 CE.

## TRIBUNALS

#### Why in the News?

The highest court was deliberating on the question of whether the Armed Forces Tribunal (AFT) had the authority to instruct the government to formulate a policy for appointing a Judge Advocate General (Air). While the AFT possesses the powers akin to a civil court, it lacks the jurisdiction of the Supreme

Court or High Courts.

### About Tribunals:

Tribunals are quasi-judicial bodies designed for the resolution of disputes in areas such as administration, taxation, environment, and securities. In India, these adjudicatory bodies offer an alternative to the conventional court system, aiming for prompt, cost-effective, and decentralized dispute resolution across various issues.

The formation of tribunals serves several purposes, including adjudicating disputes, determining rights between opposing parties, making administrative decisions, and reviewing existing administrative rulings.

### Key Features of Tribunals in India:

- **Principles of Natural Justice:** Tribunals in India adhere to the principles of natural justice, ensuring a fair and impartial hearing for all parties involved.
- **Not Bound by Civil Procedure Code (CPC):** Unlike traditional courts, tribunals are not constrained by the stringent rules of procedure and evidence outlined in the Civil Procedure Code.
- **Subject Expertise:** Tribunals often include members with specialized expertise in the subject matter under their jurisdiction.
- **Quasi-Judicial Powers:** Tribunals possess quasi-judicial powers, enabling them to hear evidence, examine witnesses, make factual determinations, apply the law to the facts, and issue binding decisions.
- **Appellate Authority:** Decisions made by tribunals can be appealed to higher courts. The appellate process allows for review by higher authorities, including High Courts and/or the Supreme Court.
- **Time-Bound Resolution:** The adjudicatory process in tribunals is typically swifter than the traditional court system, facilitating quicker and more efficient dispute resolution.

### Constitutional and Legal Provisions:

The original Constitution lacked provisions regarding tribunals. The 42nd Amendment Act of 1976

introduced a new Part XIV-A, titled 'Tribunals,' consisting of two articles:

- **Article 323A:** Pertaining to administrative tribunals.
- **Article 323B:** Pertaining to tribunals for other matters.

### Constitutional Provisions and Enacted Legislation on Tribunals in India

Provision	Description
<b>Article 323A</b>	Empowers Parliament to establish administrative tribunals for adjudicating disputes related to recruitment and conditions of service in public services at the Centre, states, local bodies, public corporations, and other public authorities.
<b>Article 323B</b>	Empowers both Parliament and state legislatures to institute tribunals for diverse matters, including Industrial and labor disputes, Foreign exchange, import and export, Land reforms, Food, The ceiling on urban property, Elections to Parliament and state legislatures, Rent, and tenancy rights, etc.
<b>Administrative Tribunals Act, 1985</b>	Enacted in reference to Article 323A, this Act grants the Central government authority to establish the Central Administrative Tribunal and state-level administrative tribunals. The legislation marks a significant step in providing expeditious and cost-effective justice to aggrieved public servants.

### New Rules and Restrictions for Tribunals in India (2020)

#### New Rules for Tribunals (2020):

The 'Tribunal, Appellate Tribunal, and other Authorities (Qualifications, Experience and other Conditions of Service of Members) Rules, 2020' were formulated by the Ministry of Finance, exercising powers under Section 184 of the Finance Act 2017. These rules supersede the 2017 Rules, which were invalidated by the Supreme Court, prompting the government to reframe them in line with court principles.

### Provisions of the New Rules:

- **Applicability:** The rules apply to 19 Tribunals, excluding Foreigners Tribunals.
- **Appointment:** Central Government appoints members based on the recommendations of the "Search cum Selection Committee" comprising the Chief Justice of India (CJI) or a nominated judge, the President/chairperson of the relevant tribunal, and two government secretaries from the concerned ministry/department.
- **Removal:** The Search cum Selection Committee holds the authority to recommend removal and conduct inquiries into misconduct allegations.
- **Qualifications:** Only individuals with judicial or legal experience are eligible for tribunal appointments.
- **Term:** Tribunal members serve a fixed term of four years.
- **Independence:** Unlike the 2017 Rules, the 2020 Rules eliminate the provision for re-appointment of members.

### Restrictions for Tribunals in India:

- **Jurisdiction of Tribunals:**
  - **Specialized Areas:** Tribunals have jurisdiction over specific legal domains like employment, tax, environment, or administrative law.
  - **Statutory Grant:** Their authority is conferred by statutes, defining the types of cases within their purview.
  - **Limited Appellate Jurisdiction:** Some tribunals possess limited appellate jurisdiction, reviewing decisions made by lower tribunals or administrative bodies.
- **Restrictions on Tribunals:**
  - **Limited Jurisdiction:** Tribunals operate within their designated areas and cannot exceed statutory authority.
  - **Procedural Constraints:** Adherence to procedural rules outlined in the governing statute is mandatory.

- **Appeal Mechanism:** Decisions of tribunals may be subject to appeal, ensuring oversight, correcting potential errors, and upholding fairness.

**THE ISSUE OF ARTICLE 370 IS OVER: BUT THE ISSUE OF TERRORISM VICTIMS NEEDS TO BE OVER IN THE LIGHT OF THE SUPREME COURT DECISION**

### Why in the News?

On 11 December 2023, the **Honorable Supreme Court of India** delivered its historic judgment on the abrogation of **Articles 370 and 35A**. Through this decision, the **Supreme Court confirmed the sovereignty and integrity of India**, which every Indian cherishes in his mind. The Supreme Court held that the government's decision to abrogate Article 370 on August 5, 2019—which ended the **special status of the erstwhile state of Jammu and Kashmir**—was taken to promote constitutional integration and not disintegration. The Court also accepted the fact that **Article 370 was 'temporary' in nature**.

### Process of Abrogation of Article 370 by Parliament/Central Government :

#### By Presidential Order:

In the Presidential Order of the year 2019, the Parliament introduced a provision and gave a new meaning to the 'Constituent Assembly of Jammu and Kashmir' as 'Legislative Assembly of Jammu and Kashmir' and then used the President's rule to abrogate Article 370. Through this, the powers of the Legislative Assembly were assumed.

#### By Resolution in Parliament:

Concurrent resolutions were passed by both Houses of Parliament, Lok Sabha and Rajya Sabha, on 5 and 6 August 2019 respectively. These resolutions also repealed the remaining provisions of Article 370 and replaced them with new provisions.

#### Jammu and Kashmir Reorganization Act:

The Jammu and Kashmir Reorganization Act 2019



was passed by the Parliament on 5 August 2019. This Act divided the State of Jammu and Kashmir into two Union Territories – ‘Jammu and Kashmir’ and ‘Ladakh’.

### Reason for Abrogation of Article 370 –

#### Reasons for Unification and Development of the Nation:

Article 370 hindered the full integration of Jammu and Kashmir into the Indian Union and at the same time it also created a feeling of separatism, which hindered the development of Jammu and Kashmir. It was also believed behind its integration that complete integration of Jammu and Kashmir into India would create better access to resources, infrastructure and opportunities for the people of Jammu and Kashmir.

#### From a Strong National Security Perspective:

Article 370 was being misused by Pakistan to support terrorism and separatism in Jammu and Kashmir region. Repealing it would strengthen national security as the Government of India would have greater control over this area and crack down on terrorist activities.

#### With a View to End Discrimination :

Article 370 discriminated against women, Dalits and other marginalized groups in Jammu and Kashmir. By repealing it, these groups will come under the ambit of Indian laws and they will get equal rights and opportunities.

#### With a View to Ensure Transparency and Accountability in Governance :

Article 370 had created a lack of transparency in the governance of Jammu and Kashmir and in determining accountability. With its repeal, the state of Jammu and Kashmir will come under the ambit of the Central Vigilance Commission (CVC) and the Right to Information Act (RTI), thereby ensuring better governance and accountability.

#### From the Perspective of Economic Prosperity and Development:

Article 370 hindered economic development in

Jammu and Kashmir. Repealing it would allow for more investment, tourism and job creation in the area.

### Highlights of the Decision Given by the Supreme Court:

#### Article 370 is a Temporary Provision:

The Supreme Court held that Article 370 was a temporary provision and the state of Jammu and Kashmir had **no internal sovereignty**. The Supreme Court also held that Article 370 was a **‘temporary provision’ for two primary reasons**.

- It served a **transitional purpose**, which was to make an interim arrangement for the establishment of the Constituent Assembly of Jammu and Kashmir, which was to draft the state constitution.
- Its objective was to **facilitate the integration of Jammu and Kashmir into the Union of India in view of the war-like situation prevailing in the state in the year 1947**.

#### The Governor can Assume the ‘All or Any’ Role of The State Legislature:

The Supreme Court, citing the landmark decision of **SR Bommai vs Union of India (1994)** (which deals with the powers and limitations of the Governor under President’s rule), held that the Governor is an **‘all or any’ member of the state legislature**. ) can assume the role.

- The Chief Justice of India (CJI) said that the Governor (President in the case of Jammu and Kashmir) can act ‘all or none’ of the state legislature and such action should be judicially tested only in exceptional cases.
- **It is not necessary to take the consent of the state government to remove Article 370** : The Court said in its decision that the President, exercising the powers under **Article 370 (3) of the Constitution, can unilaterally notify that Article 370 has ceased to exist**. Is.
- The Supreme Court further held that there was no need for the President to obtain the concurrence of the State Government in this regard,

as specified by the proviso to Article 370(1)(d).

### **Ratification of Jammu and Kashmir Reorganization Act 2019 :**

The Supreme Court **confirmed the Jammu and Kashmir Reorganization Act 2019 to the extent that the Union Territory of Ladakh** was separated from the State of Jammu and Kashmir.

### **The Views of the State Legislature are Recommenda-tory in Nature and are not Binding on the Par-liament:**

The Supreme Court also said that **the views of the state legislature regarding the proposed reorgani-zation** are recommendatory in nature and not binding on the Parliament.

### **During President's Rule, Parliament is not the Only Law Making Body:**

The Chief Justice said that **the power of Parliament in a state under/during President's rule is not limited to mere law making**. This also extends to executive action.

- The Court also said that when a proclamation under Article 356 is in force, there are a number of decisions which are taken by the Central Government on behalf of the State Government for the purpose of day-to-day administration.
- Every decision and action taken by the Central Executive on behalf of the State is not subject to challenge.
- Openly challenging every decision would lead to chaos and uncertainty.

Along With Holding Elections, Restoration of State-hood: The Supreme Court Said that the Statehood of Jammu and Kashmir Should be Restored as Soon as Possible. He Ordered that the Elections to the Legislative Assembly of Jammu and Kashmir Should be Completed by 30 September 2024.

### **Establishment of 'Truth and Reconciliation Com-mission:**

Justice Kaul, **in his concurring opinion, has** ordered a proposal to set up a 'Truth and Reconciliation Commission' on the lines of the commission estab-

lished after apartheid in South Africa to resolve the issues that have arisen since the 1980s. To address human rights violations by both state and non-state actors in Jammu and Kashmir.

### **Article 370: Historical Background.**

- Article 370 in the Indian Constitution provided **special status to Jammu and Kashmir, which is a disputed area between India, Pakistan and China.**
- Its draft was written by Indian Constituent As-sembly member **N. Gopalaswami Iyengar** and it was added to the Indian Constitution as a 'temporary provision' in the year 1949 .
- This provision allowed the state of Jammu and Kashmir **to have its own constitution and flag, as well as autonomy in most matters except defence, foreign affairs and communications.**
- It was based on the terms of the Instrument of Accession, which was signed by Hari Singh, the ruler of Jammu and Kashmir, to join India after the invasion of Pakistan in 1947.

### **Effect of Abrogation of Article 370:**

#### **Decline in Terrorist Incidents and Incidents of Vi-olence:**

There has been **a significant decline in the inci-dents of violence in Jammu and Kashmir** since the revocation of Article 370 .

- According to official figures, **the number of ter-rorist incidents** has declined by more than 50% in the last four years and security forces have killed more than 300 terrorists.
- The decline in terrorist incidents and violence can be attributed to a combination of factors, including increased security measures, better intelligence gathering and declining public sup-port for extremism.

#### **Initiatives of the Central Government to Promote Economic Development:**

The government has implemented several initia-tives to promote economic development in Jammu and Kashmir. For example – **Prime Minister's De-**

## Development Package (PMDP) and Industrial Development Scheme (IDS) .

- These initiatives of the Central Government have led to an increase in investment, employment creation and economic growth in the region.
- Jammu and Kashmir as a union territory saw a **31% increase in tax revenue** .
- **Jammu and Kashmir's GSDP at constant prices grew at the rate of 8%** during 2022-23 , while at the national level it stood at 7%.

Huge Investment also in the Development of Advanced Infrastructure Sector in Jammu and Kashmir:

The Government has also Invested Heavily in the Development of Infrastructure Sector in Jammu and Kashmir. This Includes Projects such as The Construction of New Roads, Bridges, Tunnels and Power Lines. These Reforms have Made it Easier for People to Travel and do Business in the Region.

### Huge Growth in Tourism Sector :

There has been a massive increase in the number of tourists visiting Jammu and Kashmir since the abrogation of Article 370 . This has been made possible by a combination of various factors including better security, better marketing and the introduction of new tourism initiatives.

- According to a report, Jammu and Kashmir **received 1.62 crore tourists in the year 2022, which is the highest in 75 years of India's independence.**

### Path To Solution/Conclusion:

The recent judgment of the Supreme Court has not only reinforced the principles of '**One India, Best India**' but has also proved the importance of **unity, mutual trust, development of nationalism and collective dedication for good governance.** The judgment also reveals the Court's commitment to strengthening the fabric of our nation and reinforcing the values that define us as a society. Which can also be seen as an effort towards defining India as a strong democratic country and making it grow as a democratic country.

## ISSUE OF CHILDREN UNDERNUTRITION IN INDIA



### Why in the News?

High levels of child **undernutrition** have been a persistent problem in India since Independence. Malnutrition is the condition that develops when the body is deprived of vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function:

- **Determinants** of undernutrition are multiple such as food intake, dietary diversity, health, sanitation, women's status & poverty.
- The most common measures of Childhood undernutrition are based on height for age i.e; Stunting or Chronic **undernutrition** and low weight for height i.e; Wasting or acute undernutrition.

### Issue of Child Undernutrition in India:

- As per **Global Hunger Index (GHI) 2023** published by Concern Worldwide of Ireland and Welthungerhilfe (a German non-profit organization):
  - India **ranks 111th** out of 125 countries (further *slipped below 4 positions* since 2022) below Sri Lanka (60), Nepal (69), Bangladesh (81) & Pakistan (102).
  - As per the Index, India has the **highest Child wasting rate (18%)** in the world.
  - The Hunger Index measures countries' performance on 4 component indicators –
  - **Child Stunting:** the share of children under the age of 5 who have **low height for their age: 35.5 %**
  - **Child Wasting:** the share of children under the age of 5 who have **low weight for their height: 18.7 %**
  - **Child Mortality:** the mortality rate of children under the age of 5: **4%**

- **UNDERNOURISHMENT:** the share of the population whose **caloric intake** is insufficient.
- As per National Family Health Survey (**NFHS-5**) Report:
  - Stunting has reduced from 38.4% to 35.5%, wasting from 21.0% to 19.3% and underweight prevalence is down from 35.8% to 32.1%.
  - Women (15-49 years) whose BMI (Body Mass Index) is below normal has reduced from 22.9% in NFHS-4 to 18.7% in NFHS-5.

### Issues Related to Methodology of Assessment:

As India envisages to become an **Upper Income** country by 2047 (Amrit Kaal), monitoring undernutrition among Children who will form the backbone of India's **demographic dividend (15-49 years)** in future is imperative for efficient data-based policy-making.

- India, like most other countries, uses the globally accepted World Health Organization (**WHO**) **Growth Standards** to measure malnutrition.
- However, there is an emergent debate on a number of issues related to the use of these growth standards in India, some of which are discussed below.
- The WHO standards are based on a Multicentre Growth Reference Study (**MGRS**) that was conducted in 6 countries between **1997-2003** including Brazil, Ghana, **India**, Norway, Oman and the United States.
- The purpose was to determine the pattern of growth from birth to 5 years of children who did not face any known deficiencies in their environments.
- The MGRS took a prescriptive approach, with the specific aim of setting growth 'standards' (how children ought to grow, provided they have a healthy environment) and not growth 'references' (how children of the reference group grow).
- The sample for India in the MGRS was drawn from a set of **privileged households living in South Delhi**, of children who met all the eligibility criteria for the study including having 'favorable' growth environment, being breastfed and having nonsmoking mothers.

Some researchers who have analyzed data from other surveys for India suggest that these standards **overestimate undernutrition**:

- For instance, even among children in households of the highest quintile in National Family Health Survey NFHS-5 (2019-21) **only 12.7%** meet requirements of a '**minimum acceptable diet**' as defined by WHO.
- Difference in **genetic growth potential** of Indians with respect to other Country and the influence of maternal heights on child growth.
- There are also **regional imbalances**, for example states like Odisha, Chhattisgarh, Tamil Nadu and Kerala are achieving much faster reductions in Undernutrition than other states.
- The Ministry of Women & Child Development has recently rejected the findings of Global Hunger Index (GHI) stating: "Proportion of Undernourished population indicator is based on Opinion Poll conducted on a small **sample size of 3000 people** in a country of 1.3 Billion people."
- According to the ministry, since April 2023, the number of measurement data for children under the age of five that have been uploaded to the **Poshan Tracker** has steadily climbed, rising from 6.34 crore in April 2023 to **7.24 crore** in September 2023.
- In light of these discussions, the Indian Council of Medical Research (ICMR) has constituted a committee to revise the growth references for India & recommended a detailed rigorous study to be conducted across the country to examine child growth with the purpose of devising national growth charts.

**Steps taken by the Government to Curb Undernutrition:**



- **POSHAN Abhiyaan:** The government of India has launched the National Nutrition Mission (NNM) or POSHAN Abhiyaan to ensure a “**Mal-nutrition Free India**” by 2024.
- **Anemia Mukht Bharat Abhiyan:** Launched in 2018, the mission aims at accelerating the annual rate of decline of anemia from one to three percentage points.
- **Mid-day Meal (MDM) scheme:** It aims to improve nutritional levels among school children which also has a direct and positive impact on enrolment, retention and attendance in schools.
  - **The National Food Security Act (NFSA), 2013:** It aims to ensure food and nutrition security for the most vulnerables through its associated schemes and programmes, making **access to food a legal right**.
  - Pradhan Mantri **Matru Vandana Yojana (PMMVY):** Rs.6,000 is transferred directly to the bank accounts of pregnant women for availing better facilities for their delivery.
  - **Integrated Child Development Services (ICDS) Scheme:** It was launched in 1975 and the scheme aims at providing food, preschool education, primary healthcare, immunization, health check-up and referral services to children under 6 years of age and their mothers.
  - **Eat Right India** movement by Food Safety and Security Authority of India – FSSAI.

#### Innovative way Forward:

- **Increase Financial Commitments:** There is a greater need to increase investment in women and children’s health and nutrition to ensure their sustainable development and improved quality of life.
- **Outcome-oriented Approach:** India must adopt an outcome-oriented approach on nutrition programmes. There has to be direct engagement with nutritionally vulnerable groups (this includes the elderly, pregnant women, those with special needs and young

children), and contribute toward ensuring last-mile delivery of key nutrition services and interventions.

- **Basic Education and General Awareness:** Various studies highlight a strong link between mothers’ education and improved access and compliance with nutrition interventions among children.
- **Programmes’ Monitoring and Evaluation:** There should be a process to monitor and evaluate programmes and address systemic and on the ground challenges.

There is a need to deliberate over effective policy decisions, monitor the implementation of schemes, and review nutritional status across States.

### UNLAWFUL ACTIVITY PREVENTION ACT (UAPA)

#### Why in the News?

- A recent judgment by the Division Bench of the **Jammu and Kashmir High Court** in the case of journalist Fahad Shah has highlighted the issues related to **Personal liberty** guaranteed under **Article 21** of the Constitution arising due to application of the **Unlawful Activities (Prevention) Act (UAPA)**, India’s primary anti-terror statute.
- While granting bail to Mr. Shah, the court emphasized the need for circumspection in **enforcing anti-terror laws** that allow vast interference with personal liberty.
- The High Court raised concerns about the UAPA’s procedural aspects, specifically, **Section 43-D(5)**, which **restricts bail** if accusations are deemed ‘prima facie true.’
- The judgment rejected the government’s argument that publishing an article could be considered an act of terror, emphasizing the need for common sense in criminal law. It underscored that the UAPA *should not extend to punishing alleged defamation of the country*.

## What is UAPA?

- The Union government was considering a stringent law against **calls for secession** in the mid-1960s.
- Further, in March 1967, a **peasant uprising in Naxalbari** imparted a sense of urgency.
- Thus UAPA was passed in **1967** “to provide for the more effective **prevention of unlawful activities of individuals and associations**”.
- As per the Act, Unlawful activity refers to any action taken by an individual or association intended to **disrupt the territorial integrity and sovereignty of India**.
- The Act assigns **absolute power to the Central government**, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
- Under UAPA, both **Indian and foreign nationals** can be charged. It will be applicable to the offenders in the same manner, even if **crime is committed on a foreign land or outside India**.
- Under the UAPA, the investigating agency (NIA) can file a charge sheet in **maximum 180 days** after the arrests and the duration can be extended further after intimating the court.
- The **2004 amendment added “terrorist act”** to the list of offences to **ban organisations** for terrorist activities, under which 34 outfits were banned. For example: **Khalistan Zindabad Force, Lashkar-E-Taiba, Jaish-E-Mohammed etc.**
- It has the death **penalty and life imprisonment** as the highest punishments.

## UAPA Amendment Act 2019:

The provisions were made further stringent by the Amendment Act:

- The Act empowers the **Director General of National Investigation Agency (NIA)** to grant approval of seizure or attachment of property when the case is investigated by the said agency.

- The Act empowers the officers of the NIA, of the **rank of Inspector or above**, to investigate cases of terrorism in addition to those conducted by the DSP or ACP or above rank officer in the state.
- It also included the **provision of designating an individual as a terrorist**.

## Arguments in Favour of UAPA:

- UAPA empowers the government to preventively act against individuals and organizations involved in or supporting terrorism thus **safeguarding the nation’s security**.
- Designation of individuals and organizations like **Masood Azhar, Hafiz Saeed, and Lashkar-e-Taiba** as terrorists under UAPA, has enabled freezing of assets, travel bans, and sanctions thus **effectively fighting challenging issue of Terrorism**.
  - Example: Use of UAPA in prosecuting and convicting **Ajmal Kasab**, the lone surviving terrorist of the **26/11 Mumbai attacks**, based on intercepted communications, electronic evidence, and modern investigative techniques.
- UAPA enables the **preventive detention** of individuals suspected of unlawful activities which is crucial for averting potential threats in cases lacking sufficient evidence for formal trials.
- UAPA amendments align with the United Nations Convention for the **Suppression of the Financing of Terrorism**, showcasing India’s commitment to international efforts against transnational terrorism as guided by **DPSP of Article 51**.
- Severe penalties under UAPA in the case of the 2001 Parliament attack, **discourage individuals** from engaging in or supporting activities detrimental to the nation’s security, as seen in the hanging of Afzal Guru.

## Criticism of UAPA:

- UAPA is criticized for its **low conviction rate**, which is around **2%** as per the Hindu report.

- The example of **Gaur Chakraborty** among others is cited wherein he spent **7 years** in prison during trial only to be acquitted of all charges, wherein the **imprisonment during trial itself amounted to punishment** as no bail is guaranteed.
- The broad and **vague definition of 'Terrorism'** potentially encompassing legitimate political activities or dissent under the label of 'terrorism.'
- Further, **Pre-emptive Arrests and Detentions** without bail, permitting arrests based on suspicion or the anticipation of potential offences acts as a chilling **effect to Fundamental rights** guaranteed under the Constitution.
- The Act also includes acts which are "likely to threaten" or "likely to strike terror," granting **broad powers** to label individuals, including ordinary citizens or activists, as terrorists without the actual commission of such acts.
- **Section 43(D)(5)** of UAPA **prevents the release of bail** if the police charge sheet indicates reasonable grounds for believing the accusation is prima facie true. Only a small percentage of detainees secured bail according to the **PUCL report**.

### Way Forward:

The **guidelines by Supreme Court** Judgements such as in **Arup Bhuyan v. State of Assam**, that "mere membership of a banned organization will not make a person a criminal unless he resorts to violence or incites people to violence" shall be strictly followed by agencies. The **principle of liberty** exists because of the rule of law and thus it is vital to **strike a balance between national security imperatives and the protection of individual rights**, fostering a legal framework that is effective, transparent, and accountable.

## THE FINANCE COMMISSION

### Why in the News?

- The government on Sunday appointed former NITI Aayog Vice-Chairman **Arvind Panagariya** as the Chairman of the **16th Finance Commis-**

**sion**, which will recommend the **tax revenue sharing formula between the Centre and States** for the 5 year period beginning from April 2026.

- **October 2025** is the deadline set for the commission to submit its recommendations, so that they can be incorporated in the Budget exercise.

### What is Finance Commission?

- It is a **constitutional body** formed by the order of **the President every 5 years or whenever he deems fit** under **Article 280** of the Indian Constitution to define the **Centre-states financial relations**.
- The First Commission was established in 1951 headed by **KC Neogy**.
- As per the constitution, the Commission consists of a **chairman and 4 other members**.
- Qualifications required for **Chairman** of Finance Commission: "**Experience of Public affairs**".
- Qualifications required for **Members** of Finance Commission:
  - Are, or have been, or are qualified, as **judges of a high court**,
  - Have knowledge of **government finances or accounts**, or
  - Have had **experience in administration** and financial expertise; or
  - Have special **knowledge of economics**

### Functions of the Finance Commission:

As a federal nation under **7th Schedule**, India suffers from both **vertical and horizontal fiscal imbalances**:

- Vertical imbalances **between the central and state governments** result from states incurring expenditures disproportionate to their sources of revenue, in the process of fulfilling their responsibilities.
- Horizontal **imbalances among state govern-**

**ments** result from differing historical backgrounds or resource endowments and can widen over time.

Thus, under the Constitution, the **main responsibilities of a Finance Commission** are the following:

- The distribution between the Union and the States of the **net proceeds of taxes** which are to be divided between them and the allocation between the States of the respective shares of such proceeds.
- Determination of principles and **quantum of grants-in-aid to States** which are in need of such assistance.
- Measures needed to augment the Consolidated Fund of a State to supplement the **resources of the Panchayats and Municipalities** in the State on the basis of the recommendations made by the Finance Commission of the State.
- The last function was added following the **73rd and 74th amendments** to the Constitution in 1992 conferring **statutory status** to the Panchayats and Municipalities.

**Constitutional provisions** providing functions of the Finance Commission:

- Levy of duties by the Centre but collected and retained by the States (**Article 268**)
- Taxes and duties levied and collected by the Centre but assigned in whole to the States (**Article 269**).
- Sharing of the proceeds of all Union taxes between the Centre and the States under **Article 270**.
- Statutory grants-in-aid of the revenues of States (**Article 275**)
- Grants for any public purpose (**Article 282**)
- Loans for any public purpose (**Article 293**)

The President shall cause every **recommendation** made by the Finance Commission under the provisions of this Constitution together with an explanatory memorandum as to the action taken

thereon to be **laid before each House of Parliament**.

#### Recommendations of The 15th Finance Commission:

15TH Finance Commission which was headed by **NK Singh** made following recommendations will cover a period of five years from the year **2021-22 to 2025-26**:

- **Vertical Devolution** (Devolution of Taxes of the Union to States) to be kept at **41%**:
  - It is at the same level of 42% of the divisible pool as recommended by the 14th Finance Commission.
  - It has made the required adjustment of about 1% due to the changed status of the erstwhile State of **Jammu and Kashmir** into the new Union Territories of Ladakh and Jammu and Kashmir.
- For **Horizontal devolution**, it has suggested:
  - **45%** to income gap between the states
  - **15%** each to population and area,
  - **12.5%** weightage to demographic performance
  - **10%** to forest and ecology
  - **2.5%** to tax and fiscal efforts
- It has recommended post-devolution **revenue deficit grants** amounting to about Rs. 3 trillion over the five-year period ending FY26.

### HIJAB BAN ISSUE AND FREEDOM OF RELIGION

#### Why in the News ?

Recently the Supreme Court gave a divided judgment in the Karnataka hijab ban case.

- In the event of a split decision as described in the Constitution of India, the case is heard by a larger bench.



- The bench to which the case of a split decision is transferred may be a three-judge bench of the High Court, or an appeal may be made to the Supreme Court.
- Petitions by a section of Muslim students in Karnataka seeking permission to wear hijab in classrooms were rejected by the High Court in March 2022 on the grounds that it is not a part of essential religious practice in the Islamic faith and it was unnecessarily construed on grounds of religious freedom. But an appeal has been made for hearing.

There is no longer any restriction on Muslim girl students wearing hijab in educational institutions of Karnataka. The Congress government made this announcement on 23 December 2023. Karnataka Chief Minister Siddaramaiah had made this announcement on December 22, 2023, at the inauguration of three police stations in Nanjangud in Mysuru district. Karnataka Chief Minister Siddaramaiah argued behind this that in India it is the personal right/matter of any person to choose to wear any kind of dress and eat any kind of food. In India, behind such controversial matters is vote bank politics and appeasement.

Recently, six students at a college in Karnataka's Udupi district were banned from entering the college for wearing hijab (a garment worn by some Muslim women in public). This issue raises legal questions on freedom of religion and whether the right to wear the hijab is constitutionally protected. Or it also has some different implications. This matter had reached the Supreme Court via Karnataka High Court. Ultimately it was decided that there will be a ban on sitting in the classroom wearing hijab in educational institutions. Will be allowed to come to class only wearing Uniform. Female students could come to school in hijab, but would have to take off their hijab before entering the classroom.

### What are its Implications?

According to the fundamental rights granted to Indian citizens by the Indian Constitution, Indian citizens have the following fundamental rights –

- Freedom of conscience: Freedom of conscience and to freely profess, practice and propagate religion.
- Right to practice religion: The right to declare one's religious belief and faith publicly and without fear.
- Right to practice: The right to practice religious worship, rituals, ceremonies and to demonstrate beliefs and ideas.
- Right to propagate: To communicate or disseminate one's religious beliefs to others or to explain the principles of one's religion.

### Test of Essential Religious Conduct:

- Over the years the Supreme Court has developed a practical test process for determining which religious practices can be constitutionally protected and which can be ignored.
- The Supreme Court in the year 1954 in the Shirur Math case said that the word 'religion' would include all the rituals and practices 'integral' under a religion. The test to determine what is 'integral' is called the 'essential religious practice' test.
- This test is often criticized by legal experts in relation to judicial determination of religious practices, as it leads the court to interfere in religious matters.
- Constitutional experts are of the opinion that the work of the court should be limited to restricting religious practices for the sake of public order and the court should not determine the practices necessary for any particular religion. In many cases the Court has applied this test to certain practices.
- The Supreme Court, in a judgment given in the year 2004, held that the 'Anand Marg sect' had no fundamental right to perform 'Tandav dance' on public roads, as it is not an essential religious practice of the sect.
- There are many instances in which the Court has also applied this test to individual liberty as these issues are considered to be largely community-based.
- In 2016, the Supreme Court had upheld the decision of the Indian Air Force to discharge a

Muslim airman for having a beard.

- The Armed Forces Regulations, 1964 prohibit hair growth for armed forces personnel, except 'those personnel whose religion prohibits cutting or shaving of hair.'
- In one of its decisions, the Court essentially held that 'keeping a beard is not an essential part of Islamic practices'.

### Highlights of the Court's Decision:

### Judgments of the Courts so Far on the Issue of Hijab:

- Two such petitions were filed before the Kerala High Court in 2015, challenging the dress code for all India pre-medical admissions, which permitted wearing of slippers with "salwar/pajama" and light, half-sleeved shorts. There was a provision to wear only clothes which did not have big buttons, badges, flowers etc.
- Accepting the contention of the Central Board of Secondary Education (CBSE) that the rule was only to ensure that the candidates do not use unfair means by hiding objects inside the clothes, the Kerala High Court has asked the CBSE to impose additional scrutiny on those students. Instructed to take measures who intend to dress in accordance with their religious custom, but which is contrary to the dress code.
- The Kerala High Court examined this issue more closely in the case *Amna Bint Bashir v. Central Board of Secondary Education* (2016). In this case, the Court held that the practice of wearing hijab is an essential religious practice, but did not strike down the CBSE rule.
- The Court once again allowed "additional measures" and safeguards in 2015. However, on the issue of school-prescribed dress, another bench ruled differently in the case *Fathima Tasneem v. State of Kerala* (2018).
- The single bench of the Kerala High Court said that- 'The collective rights of an organization will be given priority over the individual rights of the petitioner. ,

### Protection of Religious Freedom Under the Consti-

### tution:

- Articles 25 to 28 of Part-3 (Fundamental Rights) of the Constitution provide the right to freedom of religion.
- Article 25 (1) of the Constitution guarantees 'freedom of conscience and the right to profess, practice and propagate religion'.
- It is a right that guarantees negative freedom, which means that the state will ensure that there is no interference or obstruction in exercising this freedom.
- The Constitution, like all fundamental rights, can restrict the right to public order, decency, morality, health and other state interests.
- Article 26 explains the freedom to manage religious affairs subject to public order, morality and health.
- According to Article 27, no person shall be compelled to pay any tax for the propagation or practice of any particular religion.
- Article 28 explains the freedom to attend religious instruction or religious worship in educational institutions.

### Solution to the Problem/Way Forward:

- In the current political climate, the decision by the Government of Karnataka to mandate either a prescribed uniform or any dress in the "interest of unity, equality and public order" has been viewed as a majoritarian attempt in the guise of enforcing secular norms, equality and discipline in educational institutions. Also seen as a claim.
- A single decision that legitimizes this non-inclusive approach to education for people of any community, religion or caste and a single policy that can deny equal opportunities to Muslim women is not in the interest of the country. And it will also be unconstitutional.
- In schools, colleges or other educational institutions, hijab or any dress, religious or otherwise, should not be different from the uniform prescribed by the school, colleges or other edu-

cational institutions. Therefore, there should be reasonable scope for wearing any attire other than the uniform as long as it does not detract from the uniform, such as hijab or any other religious attire. Therefore, the uniforms prescribed by schools, colleges or other educational institutions cannot be rejected on the basis of individual freedom of dress.

## OPS VS NPS



### Why in the News?

Recently, **Maharashtra cabinet** cleared a proposal that offers State Government employees who joined service after November 2005 (qualification date for New Pension scheme (NPS)) to avail themselves the benefit of the **Old pension scheme (OPS)**. The decision has come days after various Government & semi-government employees *struck work demanding restoration of OPS*.

### Difference Between OPS & NPS:

- In Old Pension scheme (OPS), the Government pays **50% of average** of last 10 months pay. There is *no contribution by the employee or Government* into fund but paid from Consolidated fund of India.
- However in the New Pension Scheme (NPS), the **employee pay a fixed share** which is equalled by the Government.
- The Old Pension scheme (OPS) was available **only to the Government servants** while the New Pension Scheme (NPS) extends to **all citizens aged between 18-65 years**.
- While OPS covers **Government & organized sector** employees through EPS (Employee Provident scheme), the NPS is available to **all subscribers even in unorganised sector** (Unorganised sector is defined under Social security Act 2008 as an Organisation where total no. of workers do not exceed 10 employee)
- In OPS, the minimum term of employment ranged between **10-20 years** while there is **no such minimum term of employment** that exists in NPS.
- In OPS, there is **no portability across job changes** while NPS provides flexibility as it is pension scheme is **portable across jobs**.
- The OPS acts as **pooled account** while NPS provides for **Individual pension account (IPA)** thus better targeting of returns.
- While OPS is not regulated by any particular agency, **NPA is regulated by PFRDA**.

### Why Employees are Demanding OPS?

- At the tie of retirement of the employee, the OPS offers a **fixed monthly pension of 50%** of the last drawn salary.
- While in NPS, 60% of pension fund is tax-free when redeemed but the **remainder is taxable and remains invested in annuities**.
- OPS has **no risk involved** as the Government bears the complete responsibility of the guaranteed pension at the end of tenure.
- However, NPS involves certain **market associated risk** as the monthly amount is invested in market securities thus liable to fluctuations.
- While OPS has **no tax deductions**, in NPS there is tax deductible on annual investments of up to ₹1,50,000 under Income Tax Act 1961.

### Why Government has Reverted To NPS?

- As per the **CAG report**, the Centre's committed expenditure covers **37%** of the total expenditure which means the Government has **lesser flexibility** to determine where revenue expenditure shall be spent.
- **19%** of this committed expenditure is *spent on paying pensions* while **14%** is driven towards wages & salary of the employees.
- In states like Gujarat & Karnataka, the corpus of pension is larger than salary. For example, in **Himachal Pradesh, pensions accounts for almost 80% of the state's own tax revenues**.
- At the same time, India's life expectancy has

increased from 63 years in 2002 to **70 years in 2019 (NFHS-5)**, thus further increasing **fiscal burden** on the Government.

- Thus Government adopted for NPS where the employee shares equal burden of his/her pension in the future.

### Conclusion:

However due to **various strikes and low fiscal health** of various states like Rajasthan, Chhattisgarh, Gujarat, Karnataka and now Maharashtra has forced them to revert back to OPS where the Government need not pay monthly instalments to equal employee's share though this may create **fiscal burden on the "future generation"**.

## RIGHT TO INFORMATION ACT 2005

### Why in the News?

In light of criticism faced after revealing the **cost of selfie points** installed at railway stations in reply to an **RTI application**, the Indian Railways has tightened norms for Zonal Railways in furnishing information under the **Right to Information (RTI) Act 2005**

### Right to Information Act 2005:

- It sets out the rules and procedures regarding citizens **"Right to Information"** held as an integral part to realize Fundamental rights under **Article 19 (Freedom of Speech & Expression)** & **Article 21 (Right to dignified life)**.
- Under the provisions of the act, **any citizen of India** (and not any foreigner residing in India) can request information from a **"Public authority"**.
- "Public authority" under the RTI Act 2005 includes:
  - **Constitutional** authorities (executive, legislative & judiciary)
  - **Statutory body** created under the Act of Parliament or State legislature

- Any such body created by the **order** of the government including bodies "owned, controlled or **substantially financed**" by the government
- Any Non-Government organizations (NGOs) or "private institutions" which receives **over 95%** of their infrastructure funds from the government
- Any **privatized public utility** companies (as held by Supreme court in **Sarbjit Roy case**)
- Any such information sought by citizen in "public interest" shall be provided expeditiously or **within 30 days time limit**
- Additionally, if the information is sensitive and involves matter related to a **petitioner's life and liberty**, then it shall be provided **within 48 hours**

### Shortcomings of the RTI Act 2005:

- **Restricted Information disclosure:** Wide public information dissemination is barred by laws such as Official Secrets Act 1923, Civil Service Conduct Rules 1964, Indian Evidence Act 1872 etc.
- **Section 8 of the Act** itself provides **exemptions** from the disclosure of Information such as those affecting National security, trade secrets etc
- Various **Security agencies** which deals daily with citizens are also exempted from the purview of "RTI" under **2nd Schedule of the Act** such as: RAW, Aviation research centre, Directorate of Revenue Intelligence, Central Economic Intelligence Bureau, CISF etc
- It violates Individual's **Right to Privacy** as upheld under **KS Puttaswamy Judgement 2017**. For example, Supreme Court's recent judgment held the court as "public authority" under the Act but distanced the information related to conduct of Judges on the ground of the Right to Privacy.
- At the same time, the large corpus of **Private bodies** such as Corporates fall outside the purview of the act



- **Exclusion of Political parties:** CIC in 2013 held that National parties such as Congress, BJP & CPI are “public authorities” as they are “substantially” funded indirectly by the Central Government or State Governments:
  - However the Right To Information (Amendment) Bill 2013 **removed political parties** from the scope of the law.
- **Curbing voice of activists:** As per the Commonwealth Human Rights Initiative (CHRI) data, RTI activists faces repeated threat of repeated attacks and are physically and mentally harassed.
- **Red tapism:** Many RTIs are rejected due to *excessive bureaucratic requirements* to avail the information:
  - For example, more than **60% of RTI appeals** made to CIC in Delhi are rejected on the basis of “not written in English”, lack of index or listing of inaccurate dates.
  - This whole cumbersome process **disenfranchise the “common people”** of the country to seek information related to the quality of governance
- The State Information Commissions (SIC)s are facing huge backlogs of the cases due to the **shortage of available staff and rising vacancies.**

#### Steps to take to Reform RTI Act 2005:

As recommended by the **2nd Administrative Reforms Commission** (2nd ARC) report:

- Organizations performing the nature of “**public duty**” as performed by Government agencies shall be *brought within the purview of the act.*
- Provisions of restricting acts such as **Official Secrets Act 1923 & Evidence Act 1972** shall be amended to provide “**maximum & reasonable**” transparency.
- As per the recommendations of the **Shourie Committee, Section 5 (1)** shall be amended to make provisions of OSA 1923 applicable only to those information *that compromise national security.*

- All organizations listed in the Second Schedule (exemptions) shall appoint a **Public Information Officer (PIO)** and *Suo-motu disseminate information* in interest of the public.
- **Section 12** of the Act shall be amended to expand the Selection committee for Chief Information Commissioner (CIC) to include **Chief Justice of India (CJI).**
- Similarly, a Selection Committee at the State level with the Chief Minister, Leader of the Opposition and the Chief Justice of the High Court shall be appointed.
- To fill the **huge vacancies** that mired the working of the Commissions, the Government shall constitute State Information Commissions (SIC) in all states **within 3 months.**
- Further, **Regional offices** for CIC in states & SICs in districts shall be created for wider disclosure of the information. Creation of **Public Records Offices** can also be taken in this direction.
- At Least **50% of the members** of the Information Commissions shall be drawn from “**Non-Civil services**” background for diversification in the approach of working of commission.
- Also for *wider reach to the public*, the disclosed information shall be made available in **all scheduled languages (22)** and revised periodically to keep it up to date.
- Further, **Liberalizing the payment methods** to seek information to ensure uniform payments across the country shall be taken.

#### Prelims Perspective: Central Information Commission (CIC):

- It is a **statutory body** created under the Right to Information Act in 2005.
- It acts upon the **complaints** from those individuals who have *not been able to submit information requests* to a Central Public Information Officer or State Public Information Officer (PIOs).
- It consists of One Chief Information Commissioner (CIO) & **10** other Information commissioners (ICs).

- CIO & ICs are appointed by the **President of India** on the recommendation of a committee which consists of: **Prime Minister** as Chairperson, the **Leader of Opposition in the Lok Sabha** and a Union **Cabinet Minister** to be nominated by the Prime Minister.
- Right to Information Act 2019 has further increased bureaucratic control by giving power to the Central government to set the **salaries and service conditions** of Information Commissioners at central as well as state levels.

### Way Forward:

Transparency is a fundamental **pillar of the democratic form** of Government as in the words of John Maxwell; **“Transparency breeds legitimacy”**. Right to Information Act 2005 is a monumental step to instil transparency in the government functioning. It aims to inculcate a culture of **openness, accountability & participatory governance**. Thus effective implementation of the RTI Act 2005 is *sin quo non* for sustaining healthy democracy, for which above mentioned reforms are pertinent.

## PRELIMS QUESTIONS

**Q1. Which constitutional principle is often invoked when exercising remission power?**

- (a) Rule of Law
- (b) Separation of Powers
- (c) Due Process
- (d) Federalism

**Q2. The remission power is primarily exercised in cases related to:**

- (a) Civil offenses
- (b) Constitutional violations
- (c) Criminal offenses
- (d) Administrative misconduct

**Q3. What is the major role of the Central Drugs Standard Control Organisation (CDSCO) in India, according to the Drugs and Cosmetics Rules, 1945?**

- (a) Pharmaceutical product marketing
- (b) Clinical trials' regulatory approval
- (c) Good Manufacturing Practices (GMP)

(d) Providing Medical consultations

**Q4. Regarding India's anti-defection legislation, consider the following statements:**

1. A legislator nominated to the House is prohibited by law from joining any political party for a period of six months after their appointment.
2. There is no deadline set by law for the presiding officer to make a decision in a defection case.

**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

**Q5. Consider the following statements regarding the implementation of anti-defection law:**

1. If an elected member voluntarily leaves the political party;
2. If an elected member participates in or refrains from voting in such House opposed to any order promulgated by his political party or anybody authorised to do so, without getting any prior approval.

**Which of the statements given above is/are correct?**

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

**Q6. What is the primary objective of NALSA in India? Providing legal education**

- (a) Ensuring speedy trials
- (b) Promoting alternative dispute resolution
- (c) Providing free legal services to the marginalized and weaker sections of society

**Q7. Who appoints the Chief Justice of the National Legal Services Authority (NALSA)?**

- (a) President of India
- (b) Prime Minister of India
- (c) Chief Justice of India
- (d) Law Minister of India

**Q8. Who is eligible to donate organs under the**

**Transplantation of Human Organs Act, 1994?**

- (a) Only living related donors
- (b) Only deceased donors
- (c) Both living and deceased donors
- (d) Only government officials

**Q9. Which government body is responsible for the implementation of the Transplantation of Human Organs Act, 1994?**

- (a) Ministry of Education
- (b) Ministry of Health and Family Welfare
- (c) Ministry of Finance
- (d) Ministry of Transport

**Q10. PRITHvi VIGyan scheme encompasses which of the following schemes:**

- 1. Across
- 2. Accelerate Vigyan
- 3. SAGE
- 4. PACER

**Select from the code below:**

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

**Q11. Which of the following is a common driver of child marriages in some societies?**

- (a) Gender equality
- (b) Economic stability
- (c) Access to healthcare
- (d) Strong legal frameworks

**Q12. Consider the following statements regarding the ICDS scheme**

- 1. 0 to 5 years age group is the primarily target age group under ICDS scheme
- 2. Elementary education is provided by the Anganwadi centers under the ICDS scheme

**Which of the following statements given above is/are correct?**

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

**Q13. What is the main objective of the ICDS scheme regarding maternal health?**

- 1. To provide prenatal care
- 2. To promote family planning
- 3. To reduce maternal mortality

**Which of the following statements given above is/are correct?**

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

**Q14. Consider the following statements regarding ASER report:**

- 1. ASER primarily focuses on higher education
- 2. Pratham is responsible for conducting the ASER survey in India
- 3. Learning outcomes at the grassroots level is the primarily focus of ASER'S assessment

**How many statements given above is/are correct?**

- (a) One statement
- (b) Two statement
- (c) Three statement
- (d) None

**Q15. In the context of UN Sustainable Development Goals**

- 1. SDG 4 – Quality Education
- 2. SDG 5 – Zero Hunger
- 3. SDG 10 – No Poverty
- 4. SDG 8 – Reduce Inequality

**Which of the following pairs are correctly matched**

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

**Q16. Consider the following regarding National Human Rights Commission (NHRC):**

- 1. The Chairman is required to be a retired Chief Justice of India or a judge of the Supreme Court.
- 2. Chief Commissioner for Persons with Disabilities is one of the ex-officio members

**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

**Q17. Terms such as “El Wolak” & “El Davah” used by Moroccan traveler Ibn Battuta in his book “Rihla” during the reign of Muhammad bin Tughlaq shows the efficient:**

- (a) Spy system
- (b) Postal system
- (c) Revenue collection
- (d) Judicial machinery

**Q18. Consider the following statements in context of Indian history:**

1. Horse & foot based postal system was first devised by Muhammad Bin Tughlaq
2. Ibn Battuta describes the efficient Foot & Horse based postal system during Tughlaq dynasty in his book Rihla
3. It was Warren Hastings who introduced a regular Postal system in Colonised India

**Which of the above statements is correct?**

- (a) Only one pair
- (b) Only two pair
- (c) Only three pair
- (d) None of the above pair

**Q19. Consider the following statements about Tribunals:**

1. Members of tribunals are not eligible for reappointment.
2. Only individuals with judicial or legal experience are eligible for tribunal appointments.

**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

**Q20. Consider the following statements in the context of Article 370.**

1. Article 370 was ‘temporary’ in its nature.
2. The Jammu and Kashmir Reorganization Act 2019 was passed by the Parliament on 5 August 2019.

**Which of the above statement/statements is correct?**

- (a) Only 1
- (b) Only 2
- (c) Both statement 1 and 2.
- (d) None of these.

**Q21. Consider the following statements regarding Global Hunger Index (GHI) 2023:**

1. India ranks 107th out of 124 countries improving its place by 4 position
2. As per the Index, India has the highest child wasting rate in the world
3. The proportion of “Wasted” children is less than the proportion of “Stunted” children
4. India’s ranks better than other South Asian countries such as Nepal, Bangladesh & Pakistan

**Which of the above statements is correct?**

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

**Q22. Consider the following statements regarding the Unlawful Activities (Prevention) Act (UAPA):**

1. The UAPA primarily deals with environmental protection measures.
2. The UAPA is aimed at preventing unlawful activities that threaten the sovereignty and integrity of India.
3. The UAPA was enacted during the British colonial period.

**Which of the above statements is/are correct?**

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

**Q23. Which of the following are associated with ‘Planning’ in India?**



1. The Finance Commission
2. The National Development Council
3. The Union Ministry of Rural Development
4. The Union Ministry of Urban Development
5. The Parliament

**Select the correct answer using the code given below:**

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

**Q24. Consider the following: (2023 Prelims Question):**

1. Demographic performance
2. Forest and ecology
3. Governance reforms
4. Stable government
5. Tax and fiscal efforts

**Q25. Consider the following statements regarding the issue of wearing hijab on the basis of freedom of religion.**

1. Articles 25 to 28 of Part-3 (Fundamental Rights) of the Constitution provide the right to freedom of religion.
2. The Constitution of India grants citizens the right to freedom of conscience and religion to freely profess, practice and propagate religion.
3. The Constitution, like all fundamental rights, can restrict the right to public order, decency, morality, health and other state interests.
4. According to Article 27 of the Indian Constitution, no person shall be compelled to pay any tax for the propagation or practice of any particular religion.

**Which of the above statement/statements is correct?**

- (a) Only 1 and 4
- (b) Only 1, 3 and 4
- (c) All of these.
- (d) None of these.

**Q26. Consider the following statements regarding Old Pension Scheme (OPS) & New Pension scheme (NPS) often seen in the news:**

1. While OPS covered only Government employees, NPS extends to all citizen of India
2. Unlike OPS, NPS is available to all subscribers even in unorganised sector
3. Unlike OPS, there is no minimum term of employment required in the NPS
4. Both OPS & NPS are regulated by PFRDA

**How many of the above statements is/are correct?**

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

**Q27. Consider the following agencies:**

1. Aviation Research Centre
2. Directorate of Revenue Intelligence
3. Central Economic Intelligence Bureau
4. Central Industrial Security Force

**How many of the above mentioned agencies are exempted from the purview of Right to Information Act 2005 as listed in the 2nd schedule of the Act:**

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

## ANSWERS

S. No.	Answers
1.	B
2.	C
3.	B
4.	C
5.	D
6.	D
7.	C
8.	C
9.	B
10.	D
11.	B
12.	A

13.	D
14.	B
15.	A
16.	C
17.	B
18.	A
19.	C
20.	C
21.	A
22.	B
23.	C
24.	B
25.	C
26.	B
27.	D

## MAINS QUESTIONS

**Q1.** Explain the importance of the Representation of the People Act of 1951 in determining India's electoral landscape. Examine its essential clauses and their implications for the democratic process.

**Q2.** Examine the problem of electoral violence in India. Discuss the role of the Election Commission in guaranteeing a free and fair electoral process, particularly in areas where security is a concern.

**Q3.** Discuss the significance of the remission power in the criminal justice system and its role in ensuring fairness and rehabilitation.

**Q4.** Explore the balance required between executive discretion and the principles of justice, taking into account potential abuse of the remission power.

**Q5.** What exactly is Schedule M in the Drugs and Cosmetics Act of 1945?

**Q6.** Describe the regulatory framework established by the 1945 Drugs and Cosmetics Rules. How does this system ensure pharmaceutical and cosmetic safety, efficacy, and quality in India?

**Q7.** Analyze the role of the Speaker or Chairman in deciding on disqualification cases under the An-

ti-Defection Law. How can the impartiality of this process be ensured, given the political nature of the decisions?

**Q8.** Critically evaluate the exceptions provided in the Anti-Defection Law for mergers. In your opinion, do these provisions effectively address the concerns of political defections, or do they create potential loopholes?

**Q9.** Analyze the role of political interference in the functioning of the police in India. Discuss the key recommendations made by the Prakash Singh Committee and their impact on the police structure and functioning.

**Q10.** Assess the significance of introducing technology, such as body-worn cameras, in police reforms. How can technological advancements enhance accountability and transparency in law enforcement, and what potential concerns should be addressed in implementing such measures?

**Q11.** Discuss the significance of the right to free legal aid in the context of ensuring access to justice for all in India. Provide examples of how this right contributes to a more equitable legal system.

**Q12.** What ethical considerations should be taken into account when it comes to organ transplantation under the current legal framework?

**Q13.** How can the government and non-governmental organizations collaborate to promote a positive organ donation culture in the country?

**Q14.** How will the Ministry of Earth Sciences' PRITHVI Vigyan (PRITHVI) initiative aid in the nation's efforts to mitigate climate change while boosting environmental resilience?

**Q15.** What influence do you believe child marriage has on the general well-being and development of the young girls and boys involved?

**Q16.** What sociocultural elements, in your opinion, contribute to the persistence of child marriage in specific groups or regions?

**Q17.** Assess the impact of the ICDS scheme on reducing malnutrition among children in India. Discuss the key strategies employed by the program

and analyze the effectiveness of these interventions in addressing nutritional challenges.

**Q18.** Explore the socio-economic impact of the ICDS scheme on women in local communities. Assess how the involvement of women in Anganwadi centers contributes to their empowerment and discuss any challenges or barriers that may hinder this process.

**Q19.** Analyze the role of education in achieving Sustainable Development Goal (SDG) 4 in India. Discuss the challenges and potential strategies for ensuring inclusive and quality education for all, as outlined in the SDGs.

**Q20.** Discuss the potential socio-economic implications of the ASER findings on learning outcomes. How can the information from the report be utilized to address educational disparities and enhance opportunities for all children in India?

**Q21.** Discuss the role and functions of the National Human Rights Commission (NHRC) in India. Evaluate its effectiveness in safeguarding human rights, addressing violations, and promoting justice.

**Q22.** Discuss the concept of judicial overreach in the context of tribunals, highlighting instances where tribunals may exceed their designated powers and encroach upon the authority of traditional courts.

**Q23.** Discussing the main arguments behind the abrogation of Article 370, in the light of the Supreme Court's decision to abrogate Article 370, discuss how it affects the economic and infrastructural development and development of the tourism sector along with the violence in the Jammu and Kashmir region. Will the type affect?

**Q24.** Discuss the various factors contributing to child undernutrition, considering aspects such as socio-economic conditions, access to healthcare, and cultural practices.

**Q25.** Indian government has recently strengthened the anti-terrorist laws by amending UAPA 1967 and NIA act. Analyze the changes in the context of prevailing security environment while discussing scope and the reasons for opposing UAPA by human rights organizations. (250 words, 15

Marks)

**Q26.** Explain the role and functions of the Finance Commission in India. How does it contribute to fiscal federalism?

**Q27.** Compare and contrast the functions and responsibilities of the Finance Commission with those of the Planning Commission (NITI Aayog). How has the shift from Planning Commission to NITI Aayog affected the financial relations between the central and state governments?

**Q28.** "On the basis of freedom of religion, any religious identity should be free from any public display in any public places/ places or institutions." In the light of this statement, what is the situation by the government of karnataka regarding school uniforms? Critically evaluate the orders/decisions given in the same.

**Q29.** Assess the challenges and criticisms associated with the implementation of the New Pension Scheme. Explore how these challenges have influenced the perception of the scheme among government employees and its impact on the economy.

**Q30.** "Recent amendments to the Right to Information Act will have profound impact on the autonomy and independence of the Information Commission". Discuss. (2020 Question)

**MATHEMATICS**

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UPSC CSE Interview of 2020

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## CANCELING OF FREE MOVEMENT REGIME AT INDIA-MYANMAR BORDER



### Why in the News?

The Indian government has vowed that it'll no longer allow free movement at the Myanmar border, meaning a visa will be needed to enter India. The Indian Government is planning to make a 300-kilometer smart hedge system between India and Myanmar, and work is anticipated to start soon.

### About Free Movement Regime (FMR)-

- In 2018, the Free Movement Regime was brought as part of India's Act East Policy to strengthen India's ties with Myanmar. This allows those who live near to the India-Myanmar border to enter each other's nation for over to 16 kilometres without a visa they may cross with a border pass that's good for a time and stay for an outside of two weeks at a time.
- It's the duty of both governments to apply FMR for people living near to the border.
- The purpose of this governance was to encourage cross-border trade, marriages, and common festivity of leaves in further trans-border communities by the occupants.
- In 2020, the Manipur government formally put a stop to FMR.

### Reasons to end the Free Movement Regime-

- **Misused by insurgents** : Insurgent groups use

FMR to launch strikes against the Indian side and create unrest in North-East India. Many Insurgent groups like ULFA, NDB, NSCN-K etc. have launchpads in Myanmar.

- **High Influx of Anti-Junta rebels** : The Myanmar military overthrew the civilian government on February 1, 2021, announcing a one-year period of emergency. Since then thousands of anti-junta rebels have entered India creating an economic burden on the North-East part of the country and also deteriorating the relations between India and Myanmar.
- **Illegal activities** : There are worries over gun smuggling, human trafficking, drug smuggling, and illegal immigration as a result of the porous and unfenced border between India and Myanmar.
- **Deforestation**: The Manipur government has accused village heads for facilitating the deforestation by relocating migrants from Myanmar to new villages.

### Significance of Myanmar for India

#### Geo-political significance :

- Myanmar is the only nation that lies at the intersection of India's "Act East" and "Neighborhood First" policies.
- Myanmar is an important member of BIMSTEC, ASEAN, MEKONG GANGA cooperation. Hence, Myanmar is important for India

#### Geo-economic significance :

- India is developing certain projects like India-Myanmar-Thailand (IMT) trilateral highway and kaladan multi-modal project in order to link



India's landlocked north eastern states to Sittwe port of Myanmar.

- Myanmar has adequate Oil and natural reserves, which is important for India to tackle its concern about Energy security.

#### Geo strategic significance :

- Important for national security as local armed separatist groups like NSCN-K, NDB, ULFA etc are operating on Myanmar's soil.
- Proximity to Golden Triangle enable the environment for the traffickers to smuggle heroin and psychotropic substances into India
- Increasing China's role in Myanmar is undermining India's leadership role in South Asia. So can't go against Junta rule of Myanmar as it will further deteriorate the relation between India and Myanmar.

#### Steps taken for better relations between India and Myanmar

- In the Rakhine state of Myanmar, India has manufactured the Sittwe port as part of India's SAGAR Vision. This port is designed to serve as India's response to Kyaukpyu port, which is developed by China and in order to to strengthen China's geostrategic influence
- India signed an MOU with Myanmar for the "Rakhine state's development programme" under which India will build prefabricated housing in Rakhine State.
- India abstained from voting on the Myanmar resolution regarding Junta rule at various times at UNSC and UNGA.

#### Conclusion :

India needs a cautious and well-rounded strategy to address these issues, taking into account the complexity of the actual scenario. Complete cancellation on FMR will have an impact on the cultural assimilation of the people across the border.

## IRAN-PAKISTAN CONFLICT



#### Why in the News?

Iran has blasted two sites of militant group Jaish al-Adl in Pakistan's Balochistan province with missiles and drones. This incident has killed 2 children and wounded another three. As a result, Pakistan withdrew its ambassador and dismissed the Iranian diplomat.

#### Why Iran Attacked Pakistan:

- Iran has described the missile strikes as a retaliation for terrorist acts that have occurred inside its borders.
- Iran launched an attack on the Kurdistan region of Iraq, while the target in Pakistan was the Balochistan province, which is close to the Iranian border and home to the base of the Sunni Muslim extremist group **Jaish al-Adl**. The Iranian Revolutionary Guard Corps was responsible for carrying out the strikes.
- According to Iran, terrorist organisations were the intended targets of the suicide attack that claimed 84 lives during a Qassim Suleimani mourning parade.
- The attacks on an Iranian police post in the southeast region of Sistan-Baluchistan prompted the missile strikes on targets in Pakistan as well.

#### About Sistan-Baluchistan

- There are one to four million members of the Baluch minority in Iran, most of whom are concentrated in Sistan-Baluchistan's southeast.
- The area is undeveloped and impoverished. It is made up of rough, rocky terrain, it has developed into a sanctuary for opium and heroin smugglers from over the border in nearby Afghanistan and Pakistan.
- **Demography of Sistan-Baluchistan:** The majority of the Baluchs that reside there are Sunni

Muslims who consider themselves to be members of a historic tradition distinct from the Persian ethnic group of Iran. Shia people make up the bulk of Iran's population. They have a strong sense of identity with the Baluch communities in Pakistan, across the border.



### About Jaish Al-Adl

- Jaish al-Adl, which translates to “Army of Justice,” is a violent Sunni Salafist organisation based in the Balochistan province of Pakistan.
- These terrorists operate in Pakistan's and Iran's mountainous border regions. According to Iranian officials, it was created in 2012 and mostly functions in Pakistan.
- This group's militants claim that they are fighting for Asli Balochistan, the province of Sistan and Baluchistan, to become independent. This province, which borders the Indian Ocean and the province of Balochistan in Pakistan, is situated in southeast Iran.
- The group has purportedly carried out a number of violent operations in Iran, claiming to have bombed targets and abducted Iranian border police officers.
- Jaish al-Adl took credit for a suicide bombing that killed 27 members of Iran's Revolutionary Guard paramilitary group in 2019 and was directed towards a bus.
- Iran has suspicions that militants are being hosted by Sunni-majority Pakistan, potentially with Saudi Arabia's request.

### Instability in the Region

- **Spread of War:** Global observers are of the opinion that the disastrous war in Gaza may escalate into a more extensive and deadly regional confrontation in central Asia.
- **Continued American Troop Presence In Iraq:** The attack may lead to the continued deployment of American forces in Iraq.
- **Resurgence of Kurdish Militia:** Tensions between Iranian Kurds and Kurds may increase as a result of the onslaught on Kurdish territories.
- **Start of a Proxy War:** Iran's actions could lead to a conflict between Iran and the United States and its allies.
- **Escalation of Tensions:** Since the end of the Afghan civil war, the region of central Asia has been quiet. Things could soon change.

### How is it Going to Impact India?

- **Impacts On Chabahar Project:** The instability may have an impact on the Chabahar port project, which is situated in the Sistan-Baluchistan area of Iran.
- **Indian Stakes in Afghanistan:** India has interests in development projects in Afghanistan, where the conflicts could expand.
- **Pakistan's Security Dilemma**  
Should Pakistan fall apart, India doesn't want nuclear weapons to end up in the hands of non-state actors.
- **A Surge in Insurgency In J&K:** Pakistan can intensify insurgency in the region to deflect attention away from its own citizens during election season.

### India's Position on Terrorism

- **Zero Tolerance:** When it comes to terrorism, India maintains an unwavering stance.
- **Non-State Actors:** India opposes using force against a state in order to combat terrorism, but it supports using force against non-state actors.

- **Labelling:** India is against categorising acts of terrorism according to the reasons behind them.
- **Self-Defense:** India is aware of the measures other nations take to protect themselves. India acknowledges the legitimate national liberation groups' right to self-defense.
- **Cooperation:** India is in favour of greater international cooperation in the battle against terrorism.

## INDIA-MALDIVES ROW

### Why in the News?

Three deputy ministers were suspended by the Maldives government after they slandered Prime Minister Modi on social media platforms. The issue for Social Media spat between Maldives and India was tourism.

### Background of Spat

- It began when the Indian Prime Minister posted a number of tweets on X encouraging travellers to visit the Lakshadweep islands. Although the PM did not mention the Maldives or other island nations in his posts on Twitter, rather focus was on the beauty of Lakshadweep.
- However, a few well-known Maldivian social media users replied to it with insulting, xenophobic, racist, and disparaging remarks. Both the Indian PM and all Indians were the target of these remarks.
- The three Ministers from the Maldives were also among those people.
- Social media users in the Maldives started accusing India of trying to compete with them as a destination for travellers seeking a tropical holiday.
- Some other social media users were also prompted by these tweets to make a variety of racist comments directed towards Indians and

Indian visitors to the Maldives.

### Anti-India protests in Maldives :

- Since the 2020 launch of the "India Out" campaign, which was led by former president Abdulla Yameen Abdul Gayyoom, anti-Indian views have been prevalent.
- The campaign's supporters had stated that it was launched as a protest against what they saw to be the deployment of Indian armed forces in the nation.
- President Muizzu said in December 2023 during the COP28 climate summit that the Indian government had decided to remove its soldiers from the Maldives .
- These Indian soldiers were in the Maldives to oversee and control a Dornier aircraft that India had donated to the Maldives, as well as two helicopters.

### Maldives' dependability on tourism

- The Maldives' economy is heavily reliant on tourism, which generates more than 28% of its total revenue.
- There will be over 200,000 Indian tourists to the Maldives in 2023, accounting for a sizable portion of the tourism industry, followed by the tourists from Russia and China.

### India's Response

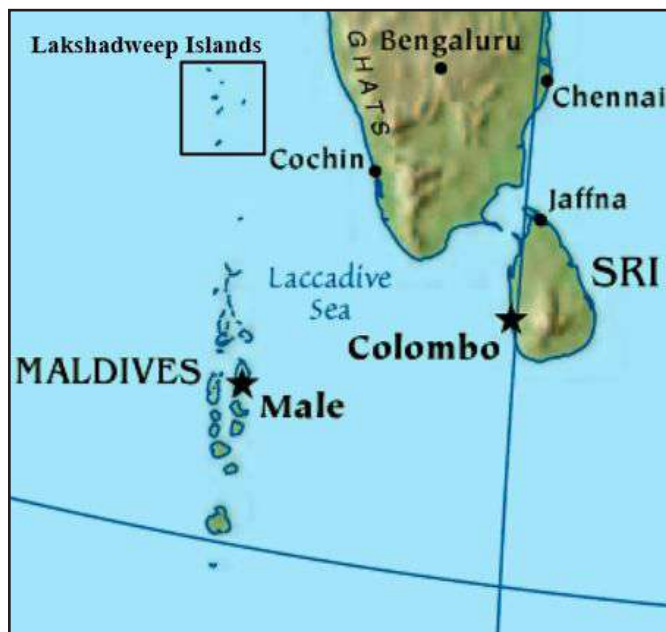
**Requesting for Boycott:** A number of Indian users urged that hotels and resorts in the Maldives must be boycotted.

**Celebrity Support:** In reaction to the controversy, Bollywood stars and Indian athletes launched the "Visit Lakshadweep" campaign.

### About Lakshadweep :

- Lakshadweep is an archipelago of 36 islands covering an area of 32 square kilometres.
- Its capital is Kavaratti, which is also Lakshadweep's important town.
- The majority of islands are coral reef atolls produced by coral reefs that encircle a lagoon.

- Except for Minicoy, inhabitants of the remaining islands speak Mahl, which is written in Divehi script and is also spoken in the Maldives,
- Malayalam is also spoken on all of the islands.
- Lakshadweep's climate is tropical, with a warm and moist climate year-round.



### Geographical location

It is located between 8°- 12°13" minutes North latitude and 71° – 74° East longitude, while 250 to 440 kilometres from Kochi, Kerala. The 8° Channel serves as the maritime boundary between the Maldives and Minicoy (India). The island of Minicoy is separated from the majority of the Lakshadweep islands by the 9° Channel.

### Importance of Lakshadweep for India :

- Because of its closeness to major international shipping routes, its importance for India strengthens.
- The islands serve as a base of operations for the Indian Navy and Coast Guard.
- Lakshadweep is part of India's Exclusive Economic Zone (EEZ), which grants the government rights to explore and use marine resources in the surrounding waters.
- Lakshadweep's scenic splendour makes it a fa-

vourite spot for travellers.

- Lakshadweep's coral atolls and surrounding waters are host to a wide range of varied marine life, including coral reefs and many fish species.

### Conclusion :

The situation illustrates the significance of neighbourly contact that is respectful and diplomatic. Although experts believe that the actions of a few individuals are unlikely to have a negative effect on India-Maldives bilateral relations.

## CASE AGAINST ISRAEL IN ICJ

### Why in the News?

The International Court of Justice (ICJ) has been asked to take into account the likelihood that Israel is violating its obligations under the 1948 Genocide Convention by carrying out genocide against the Palestinian people in Gaza. South Africa was the country to bring up this case in ICJ.

### Allegations and requests of South Africa

- In its lawsuit, South Africa claims that Israel, a signatory to the Genocide agreement, has committed crimes that fall within the criteria of the agreement.
- Statements from Israeli leaders stating explicit purpose and allegations that Israel neglected to stop genocide or punish incitement to genocide are among the evidence put forth by South Africa.
- According to reports, the claimed acts took place in Gaza, prompting South Africa to declare that a genocide is taking on right now.
- South Africa is also requesting immediate remedies from the International Court of Justice (ICJ) in order to stop further harm to Palestinian rights.
- The actions include stopping all Israeli military activities in Gaza right now, abiding by the terms of the Genocide Convention, ending forcible re-



location and deportation, and guaranteeing access to medical supplies and humanitarian aid.



### About 1948 Genocide Convention of UN

- The International Convention on the Prevention and Punishment of the Crime of Genocide is a global human rights convention that formalised the heinous act of genocide for the very first time. On December 9, 1948, the UN General Assembly enacted the first human rights convention, which went into force on January 12, 1951.
- **Definition of Genocide as per convention:** According to the current Convention, any of the following kinds of acts carried out with the intention of completely or partially eradicating a national, ethnic, racial, or religious group are considered acts of genocide: 1 Murdering the members of the group. 2 Causing substantial bodily or mental harm to anybody in the group. 3 purposefully causing the collective conditions of existence to be such that it is physically de-

stroyed in whole or in part 4 enforcing policies designed to stop births inside the community. 5 forcing the group's youngsters to be transferred to another group carried out with the intention of eradicating a national, ethnic, racial, or religious group entirely or in part.

- According to the convention, any participating nation may ask the appropriate UN bodies to take the required steps to stop and punish crimes of genocide.
- It requires state parties to take action, such as passing pertinent legislation and prosecuting offenders, in order to prevent or punish the crime of genocide.
- Even if these crimes are committed widely, it does not prove genocide.
- Genocide is distinguished from war crimes, ethnic purges, and crimes against mankind by the intentional intent to destroy.
- Furthermore, because the ICJ does not automatically have jurisdiction over crimes against humanity, ethnic cleansing, war crimes, and other transgressions do not give States a way to file a complaint with the court.

**International Court of Justice:** The primary judicial body inside the United Nations (UN) is the International Court of Justice (ICJ). The United Nations Charter established it in June 1945, and it started operations in April 1946.

- The Peace Palace in The Hague, Netherlands, serves as the Court's seat. Of the six main UN organs, it is the only one that is not based in New York City.
- French and English are the official languages of ICJ

### Formation of ICJ =

- The Permanent Court of International Justice (PCIJ) was superseded by the ICJ. The League of Nations was responsible for founding PCIJ.
- The United Nations and International Court of Justice (ICJ) took the place of the League of Nations and PCIJ after World War II.

- Judge José Gustavo Guerrero of El Salvador, who served as the PCIJ's final president, was officially disbanded in April 1946 and appointed as the first president of the ICJ.

**Functions of ICJ :** To provide advisory views on legal matters brought to it by authorised United Nations institutions and specialised agencies, and to resolve legal conflicts brought to it by States in conformity with international law.

- **Judges in ICJ:** The UN Security Council and General Assembly vote concurrently but independently to choose the "15 judges" that make up the International Court of Justice (ICJ) for nine-year mandates.
- A candidate needs to win the majority of the votes in both houses in order to be elected; this requirement occasionally calls for additional voting rounds.
- Every 3 years, elections are held to elect a third of the court at the UN Headquarters in New York during the UNGA meeting. The judges that are chosen at the triennial election take office on February 6 of the subsequent year.
- By secret ballot, the court's president and vice president are chosen for three-year periods. Judges can run for office again.
- There have been four Indian members of the ICJ. Since 2012, Justice Dalveer Bhandari, a former Supreme Court justice, has been a member of the ICJ.
- **Who can file cases at the court ?** In disputes, only States may present before the Court. This basically refers to the 193 United Nations Members as of right now.
- Applications from private parties such as corporations, non-governmental organisations, or people are outside the purview of the Court. It cannot assist them in interacting with national authorities or offer them legal guidance.
- The ICJ law immediately binds every member of the UN. But this does not automatically grant the ICJ jurisdiction over issues involving them. Only with the agreement of both parties does

the ICJ acquire jurisdiction.

- The parties to a case are legally bound by the ICJ's final ruling. An appeals process is not present. At most, it could be open to interpretation or amendment in the event that a new fact comes to light.
- The International Court of Justice's authority is dependent on nations' desire to follow its rulings, and it has no means of ensuring that they are followed.

## QATAR COURT PUTS INTERIM STAY ON DEATH SENTENCE OF EIGHT INDIANS

### Why in the News ?

In a major relief to 8 former Indian marines sentenced to death in Qatar, on 28 December 2023, on the appeal of the Government of India, an interim stay has been put on the death sentence of all eight people. India's Ministry of External Affairs had approached the court in Qatar regarding this case, during the hearing of which the Qatari court reduced the death sentence.

### Who Are These Eight Former Indian Navy Personnel?

The eight former Indian Navy personnel have been identified as Captain Navtej Singh Gill, Captain Birendra Kumar Verma, Captain Saurabh Vashishtha, Commander Amit Nagpal, Commander Purnendu Tiwari, Commander Sugunakar Pakala, Commander Sanjeev Gupta and Sailor Ragesh Gopakumar.

### What Is The Allegation Against Them?



Eight Indians working in Qatar-based Al Dahra Company (Qatar's private security company) are

accused of allegedly spying, for which recently a court in Qatar has issued a sentence to eight former officers of the Indian Navy. He has been sentenced to death on charges of espionage. The officials involved were arrested in August 2022 and charged with sharing confidential information.

### Background Of The Present Case:

#### Petition:

- The accused officers, who were working with Al Dahra (Qatar's private security company) in Doha, were accused of allegedly sharing classified information at the time of their arrest in Qatar in the year 2022.
- The Qatar-based company 'Dahra Global Technologies and Consultant Services', for which the eight former Indian Navy officers worked, was also involved in the production of advanced submarines of Italian origin, which are also known for their stealth warfare capabilities.
- The main thing to note is that the charges against the eight Indian officials have not been made public by the Qatari authorities.
- Earlier investigation process regarding the present case:
- Presently, the investigation process regarding this matter has been completed twice in March and June of the year 2023 and more have also been done. While these accused detainees were granted consular access on several occasions, the authorities of both the Indian and Qatari countries maintained the confidentiality of the case citing the sensitivity of the matter.

### Response Given By The Government Of India In The Present Case:

- The Government of India is exploring all possible legal options to secure the release of the eight accused former Indian Navy officers, while also expressing concern over the death penalty imposed by India on its citizens.
- The Ministry of External Affairs (MEA) has reiterated its commitment to provide consular and legal assistance to the eight Indian former naval

officers detained in Qatar, and has also coordinated with all major authorities related to the case. Made aware of its importance.

### Diplomatic Implications:

- While the large Indian diaspora contributes to boosting economic and diplomatic ties, this decision could potentially strain relations between India and Qatar. More than seven lakh Indian expatriates reside in Qatar. This increases the pressure on the Government of India to take the highest level of action to save the lives of the prisoners lodged in the jails there.
- Those NRIs in Qatar are known and highly respected for their honesty, hard work, technical expertise and law-abiding nature as they contribute in different areas of employment in NRI Qatar. Are giving.
- Remittances from Qatar to India by the Indian expatriate community are estimated to be around \$750 million per year.
- The current affair represents the first major crisis in India-Qatar relations, which have been generally stable until now.
- In the year 2016, along with the visit of the Indian Prime Minister to Doha, high-level meetings were also held between the two countries, after which meetings were also held between the two countries with the Emir of Qatar.
- An important supplier of liquefied natural gas (LNG) to India is Qatar, which supplies a major portion of India's LNG imports.

### The Existing Options Available To India To Stop The Punishment Of Naval Personnel Are:

#### Diplomatic Option:

- In the present case, India can hold direct diplomatic talks with the Qatar government to find a solution to the matter. Given the strategic and economic importance of relations between the two countries, India's diplomatic leverage can play an important role.
- The Indian government can also use diplomatic pressure to stop the death penalty.

- The idea is to use the agreement signed by India and Qatar in 2015 for the transfer of convicted prisoners so that they can serve their sentence in their home country. Such possibilities are also being considered by India.
- Filing an appeal against the decision by the Qatari court or NGOs and civil society can also raise this issue at the global level and pressure can also be put on Qatar by the United Nations.

### Legal Options:

- According to Qatar's judicial system, persons sentenced to death can file an appeal within the Qatari legal system. Therefore, India's first step is to appeal within the judicial system in Qatar.
- India can ensure that detainees' right to appeal is properly followed by providing them with legal representation.
- If proper procedures are not followed or the appeal process is disorganized, India can invoke International Court of Justice (ICJ) jurisdiction.
- The International Court of Justice (ICJ) acts as a world court with two types of jurisdiction. That is, it is also to give advisory opinions in case of legal disputes between two states submitted by them (controversial matters) and on legal questions referred to it by the organs and specialized agencies of the United Nations (consultative proceedings).

### Way To Solve The Problem/Way Forward:

- India needs to remain committed to the welfare and legal rights of its citizens while dealing with the complexities of international diplomacy and legal processes in Qatar. The way forward in this direction is likely to be challenging and may take time and require India to show determination.
- In this present case, as well as in the future, India may desperately need a combination of its diplomatic efforts, systematic legal actions and international cooperation for a successful and appropriate resolution of such a problem/case. For which India needs to build very cordial and unbreakable diplomatic relations with other

countries.

## ATTACK IN RED SEA



### Why in the News?

Yemen's Iran backed **Houthis** have been *targeting vessels in the Red Sea* since November 2023 to show their support for the Palestinian Islamist group Hamas in its war against Israel.

### Importance Of Red Sea Region For India?

- From the **Suez Canal** that links it to the Mediterranean, to the **straits of the Bab al Mandab** that connect it to the Indian Ocean, the Red Sea is a vital artery for the world economy.
- Upwards of **10% of seaborne cargo** sails through its waters every year including the majority of Asian trade with Europe.
- An estimated **\$200 billion** worth of Indian exports flows every year through the key waterway connecting the **Mediterranean and the Red Sea**.
- With the Suez Canal becoming unusable due to recent attacks, India's exports of manufactured goods including **automotive parts, agricultural products, chemicals, textile and readymade garments, and pharmaceutical products** are likely to be affected.
- The Saudi Arabia's Council of Arab and African littoral States of the Red Sea and Gulf of Aden includes **all eight states** with a coastline, namely **Djibouti, Egypt, Eritrea, Jordan, Somalia, Sudan and Yemen** as well as **Saudi Arabia** itself—but **not Israel, which has a seaport at Eilat**.

### Adverse Impacts On Economy:

- The attacks have raised issue of **maritime security and free & safe passage** in the Red sea region and Indian ocean.
- This has prompted major shipping companies to take the **longer and costlier route** around Af-



rica's **Cape of Good Hope** rather than through the Suez Canal.

- This leads to **delays in cargo deliveries**, and results in **increased fuel expenses**. Additionally, this circumstance **heightens the demand for vessels**.
- For Example, Re-routing via the Cape of Good Hope can add up to **10 days sailing time** & cost up to **\$1 million extra** in fuel for every round trip between the Far East and North Europe
- This is a cause for concern for India as it is a **major importer of crude oil from Russia** and a significant player in the **export of petroleum products to Europe**, both of which require transportation through the Suez Canal.
- As data analytics firm **Kepler** reported, India became **Europe's largest supplier of refined fuels in 2023**. In the ongoing and previous financial years, the **Netherlands** was the biggest importer of India's refined fuels.
- Further, as India is an **oil import dependent economy** constituting 80% of India's energy needs. Thus, increased prices of fuel can further lead to **"imported inflation"** in the Indian economy having a negative impact on overall consumer demand.
- For Example, in FY 2023-24, India imported over \$26,900 million worth of crude oil from **Russia — its biggest source of oil this year** — with **Iraq** featuring a distant second (\$15,582 million).

#### Related News: Operation Prosperity Guardian:

- It is an initiative **launched by the USA to protect Red Sea commerce**.
- This follows missile and drone attacks by **Yemen's Iran-aligned Houthis**.
- Countries Involved: The U.K., Bahrain, Canada, France, Italy, Netherlands, Norway, Seychelles, and Spain are participating.
- Joint Patrols: These nations will conduct joint patrols in the southern **Red Sea and the Gulf of Aden**.

- **NOTE: India is NOT a member of alliance**

## GLOBAL NUCLEAR ORDER



### Why in the News?

- With increasing polarisation in Russia – USA relations on the issue of the ongoing Russia-Ukraine war & subsequent eastward expansion of the North Atlantic Treaty Organisation (NATO), the Global Nuclear Order established through various treaties during and post Cold war period has come under severe tension.
- In this light, India's Nuclear policy and its role as "balancing power" in the world holds tremendous importance.

### Establishment Of Global Nuclear Order (GNO):

- Under the "Manhattan project", with the efforts of Robert Oppenheimer, the USA became the first country to possess Nuclear weapons in 1945 during the World War II period.
- The devastating effects of Nuclear weapons became known to the world after its use in the bombings of Hiroshima & Nagasaki, Japan by the USA to provide a deathblow to the war.
- As Russia (erstwhile USSR) & USA entered into the Cold war period (1945-1989), a nuclear weapon race ensued with both nations trying to outdone each other by developing ballistic missiles.
- Following the 1962 Cuban Missile Crisis, when US & Russia came perilously close to launching a nuclear war, both U.S. President John F. Kennedy and Russia's General Secretary Nikita Khrushchev understood two political realities:
  - First, as the two nuclear superpowers, they needed bilateral mechanisms to prevent tensions from escalating to the nuclear level.
  - And, second, nuclear weapons are dangerous and, therefore, their spread should be

curbed.

- It was this convergence on the issue of curbing the spread of Nuclear weapons which created the Global Nuclear Order (GNO).

### Global Nuclear Disarmament Policy:

- The hotline established between Russia & USA in 1963 gradually developed into nuclear risk reduction centres.
- It was followed by arms control negotiations as the two nuclear superpowers sought to manage their nuclear arms race and maintain strategic stability.
- The Geneva Convention 1965 to curb the spread of nuclear weapons was followed by the Nuclear Non-proliferation Treaty (NPT) in 1968.
- The NPT has proved to be successful as despite dire predictions of more than 20 countries possessing nuclear weapons by the 1970s, (there were actually 5 in 1968 – the U.S., U.S.S.R., U.K., France, and China), only 4 countries have since gone nuclear, i.e., India, Israel, North Korea, and Pakistan.
- Further, in 1969 SALT-1 (Strategic Arms Limitation Talks) concluded with both sides agreeing not to build new Intercontinental Ballistic Missile (ICBM) silos.
- However, such arms control did not end the U.S. – U.S.S.R. nuclear race; as in fact, their arsenals grew from 28,000 bombs in 1962 to over 65,000 bombs in the early 1980s.

### Evolution Of India's Nuclear Policy:

- India's Nuclear policy embarked under the "Dual Intent strategy" of First Prime Minister J.L. Nehru & Homi J. Bhabha.
- The Atomic Energy Commission (AEC) was established under Atomic Energy Act 1948 with Homi J. Bhabha as the Chairman.
- After the Indo-China War 1962 and development of Nuclear weapons by China in 1964, it became imperative for India to develop its own arsenal to ensure National security.

- Thus, India refused to sign NPT in 1970 on the following grounds:
  - The NPT defines "nuclear weapons states" as those that tested devices before 1967, which means India cannot ever be one
  - No fixed timelines have been mentioned for disarmament
  - NPT is unfair treaty as nuclear weapon states have no obligation to give them up while non-nuclear states are not allowed to equip themselves
- In 1974, India conducted its first nuclear test known as Smiling Buddha under Srimati Indira Gandhi.
- Subsequently, India conducted its 2nd nuclear test called as Operation Shakti in 1998 under Shri Atal Bihari Vajpayee and declared itself as "de-facto" Nuclear state.
- Due to this Internationally not sanctioned test, India was ousted from the Nuclear Supplier Group (NSG), which seek to prevent nuclear proliferation by controlling the export of materials, equipment and technology that can be used to manufacture nuclear weapons.
- India finally managed to have some relief when the US relented and agreed to sign a civil nuclear deal with India in 2008 also known as the 123 Agreement.

Under this, India signed a civil-military separation plan and India-IAEA safeguard agreement. In return, US diplomacy helped us to get an NSG waiver.

### India's Current Nuclear Doctrine:

In the year 2003, India adopted a Nuclear doctrine based on "NO FIRST USE" (NFU) policy. Certain key aspects of the draft were:

- India would not initiate a nuclear attack on any country.
- India would not use nuclear weapons on non-nuclear states.
- India's nuclear arsenal will be used for the sole

purpose of defence and would serve as a deterrent against external nuclear attacks.

- The retaliatory 2nd strike to a first nuclear attack would be massive and would inflict unacceptable damage on the opponent.
- India would adopt the Nuclear triad model to develop capability of launching nuclear attacks on 3 fronts i.e. land, air, and water.

### Rising Issues Affecting Gno:

Growing polarisation between Russia & USA due to expansion of NATO has brought the initiative of Nuclear Disarmament to a standstill:

- For example, in 2002, the U.S. withdrew from the Anti-Ballistic Missile (ABM) Treaty & Intermediate Range Nuclear Forces (INF) Treaty on grounds that Russia was violating it.
- The only remaining agreement, New START, will lapse in 2026 as its verification meetings were suspended during the COVID19 outbreak and never resumed.
- Russia de-ratified the CTBT to bring it on a par with the U.S., raising concerns about the resumption of nuclear testing.
- More recently, the nuclear submarine AUKUS deal (Australia, U.S., U.K.) with Australia, a non-nuclear weapon state, is raising concerns in the NPT community
- With China developing its own Nuclear capable missiles & submarines, it has become imperative for India to revive & restore Global Nuclear Order (GNO).

### Way Forward:

Moreover, Russian nuclear sabre rattling to warn the North Atlantic Treaty Organization and the U.S. against escalation in Ukraine has *revived nuclear concerns*. The old definitions of strategic stability no longer hold and thus it is important for India to ensure that its “balancing role” between two extreme blocs bear fruits to curb the use & production of Nuclear weapons.

## INDIA-KOREA DEFENSE COOPERATION/RELATIONS IN CURRENT CONTEXT

### Why in the News ?

India, during its **G20 presidency in 2023**, recalled the contribution of its diplomatic role in the Korean War seven decades ago. India and South Korea have taken their mutual relations to new heights through bilateral treaties and agreements over the years. During the global pandemic **COVID-19**, better mutual coordination was also seen between the two countries in the health sector.

To stop the spread of Coronavirus, South Korea worked seriously on strategies like high speed of testing, strict quarantine policy and contact tracing, which proved to be a path-breaking example for India. Apart from the strong trade and economic relations between India and South Korea, equal importance is also being given to the dynamic defense relations. In the year 2019, India and South Korea have signed an agreement under Special Strategic Partnership under which both the countries will use each other's naval bases for exchange of logistics.

Recently, between **Indian Defense Minister Rajnath Singh and his South Korean counterpart Suh Wook**, both the countries decided to emphasize joint research, joint production of defense equipment and joint export of defense industrial cooperation in the field of defense industrial cooperation. Defense industrial cooperation was discussed extensively in this meeting. South Korea, as a strong ally, has been a major supplier of arms and military equipment to India. In 2019, India and South Korea finalized a roadmap for cooperation in joint production of various naval systems.

- India's role in the Korean War was partially successful, yet India is counted among the countries that contributed to ending the war.

### Events of the Korean War:

#### Background:

- This war event has its roots in the conflict over **Japanese control of Korea between 1910 and 1945**.

- When Japan was defeated in World War II, the Allied forces agreed to establish a **“Four Power Trusteeship over Korea”** at the Yalta Conference (1945).
- While the **Union of Soviet Socialist Republics (USSR)** invaded Korea and took control of the northern region, South Korea remained under the control of the rest of its allies, primarily the United States.
- **The 38th parallel**, the official border dividing Korea into two parts, divided the two regions into North and South Korea, which still remains the official border dividing Korea into two parts.
- **The Republic of Korea (South Korea) and the Democratic People’s Republic of Korea (North Korea) were established in 1948.**
- Both the countries tried to expand their reach regionally and ideologically at their respective levels, due to which the Korean conflict emerged between the two countries.

#### Historical Background:

- The relations between South Korea and India are not from today but are more than 2000 years old.
- There are many such legends and legends and it is believed that **Princess Suriratna of Ayodhya married King Kim-suro of Korea. Therefore, in view of this marital relationship between the two countries, a joint postage stamp has also been issued.**
- **Buddhism originated mainly in India but spread to China, Japan and Korea**, thus the cultural ties resulting from the spread of the religion brought the two countries closer to each other.
- Many rulers of India had sent their messengers to this region to spread Buddhism and also the students here used to come to get education in the Buddhist education centers of India.



#### Various Areas Of India-South Korea Cooperation:

##### Political Sector:

- Political relations between India and South Korea began after the independence of South Korea in 1945. India has always played an important and positive role in the affairs of South Korea.
- Only **Shri K.P.S. Menon of India** was appointed as the Chairman of the 9-member United Nations Commission formed in 1947 to conduct elections in Korea.
- **During the Korean War (1950–53)**, both sides of the war accepted a resolution sponsored by India and a ceasefire was declared on 27 July 1953, which was a major achievement for India.
- The state visit of the then President of India, Dr. APJ Abdul Kalam to the Republic of Korea in 2006 marked the beginning of a new phase in India-Republic of Korea relations. During this visit, a task force was formed to take a decision on the bilateral **Comprehensive Economic Partnership Agreement (CEPA)**. This Comprehensive Economic Partnership Agreement came into effect in January 2010.
- **Indian Prime Minister Narendra Modi’s** visit to South Korea in 2019 was very important when he was awarded the **Seoul Peace Prize**. In this way, political relations between India and South Korea have remained very strong.

##### Economic And Business Sector:

- **Korea is India’s 15th largest trading partner.** Shipbuilding, automobile, electronics, textile,



food processing and manufacturing etc. are the major sectors in India-Republic of Korea mutual trade.

- The investment of Indian technology companies in the Republic of Korea is approximately Rs 2 billion. Whereas big companies of Republic of Korea like Samsung, Hyundai Motors and LG have invested more than 3 billion dollars in India.
- 603 small and big Korean firms are officially operating in India. Multinational Korean company Samsung, by setting up its world's largest enterprise in Noida, has made its intention clear that if India creates an investment-friendly environment, Korea will not lag behind in investment.
- Apart from this, Korea has announced that it will establish a startup center in India. Bilateral trade between the two countries reached \$22.52 billion in the year 2019-2020.

#### Cultural Area:

- To enhance cultural exchange between India and the Republic of Korea, Indian Cultural Centers were established in Seoul in April 2011 and Busan in December 2013.
- **Jawaharlal Nehru University, New Delhi** and the **University of Delhi**, which are located in Delhi, India, offer research programs ranging from graduate-level to PhD courses in Korea Studies and Korean Language courses, respectively.
- In the year 2013, '**Indian Institute of Studies Korea**' was established by the Korea International Trade Association. The Institute of Indian Studies Korea is a platform that brings together a large number of Korean and Indian academicians, economists and business representatives.
- Exchange of youth delegations between India and the Republic of Korea has been taking place on an annual basis for many years.

#### Overseas Indians Living In South Korea:

- **The total number of Indian citizens living in the Republic of Korea is around 11,000.** More than

1000 Indian scholars are studying and doing research in postgraduate and PhD courses in the Republic of Korea.

- Many professionals from important sectors like information technology, shipping and automobile have migrated to the Republic of Korea in the last few years mainly from India and are making significant contributions in strengthening the economy there.



#### Current Perspective Of India-South Korea Bilateral Relations:

- While South Korea wants to establish better relations with India through the **New Southern Policy**, India is promoting its relations through its **Look East Policy**.
- South Korea has declared India as its special strategic partner, South Korea has made such an agreement only with its traditional allies like Japan and America.
- During the global pandemic Covid-19, both the countries have ensured mutual exchange of health-related equipment such as testing kits, masks and medicines that develop immunity.
- Along with the joint meeting at the ministerial level between South Korea and India, talks like **2 + 2 Dialogue** are going on at the secretary level, due to which both India and South Korea are continuously strengthening their strategic relations. Are doing, it turns out.
- Comprehensive Economic Partnership Agreement that allows India and South Korea free import of critical metals and articles from each other. There is also a **Comprehensive Econom-**

**ic Partnership Agreement** between India and South Korea.

- **South Korea is building a project on a trilateral basis with India in Afghanistan. Along with this, he has always been supporting India's Afghanistan policy.**
- India-South Korea Technology Exchange – Center has been established in the premises of 'National Small Enterprises Corporation' located in New Delhi. Through this, both the countries are helping each other in the field of small and medium industries.
- Korea Plus has been operationalized between the two countries since June 2016, involving representatives of the South Korean Ministry of Industry, Trade and Energy, Korea Trade Investment and Promotion Agency (KOTRA) and Invest India. Are included.
- **Korean Broadcasting System and Prasar Bharati** have agreed to facilitate the **broadcasting of Doordarshan India Channel in South Korea and Korean Broadcasting Channel in India** as well as to promote mutual cultural relations between India and South Korea.

#### Challenges In India-South Korea Relations:

- **South Korea's trade with China is almost 10 times more than that with India.** Therefore, we should not forget that even though India wants to sideline China from a strategic and trade point of view by signing an agreement with South Korea, the undeniable truth is that there is still confusion between the two countries regarding the free trade agreement. Therefore, trade between India and South Korea is not achieving the expected pace.
- In the last few years, relations between South Korea and **North Korea have normalized and it is indirectly believed that there is a partnership between North Korea and Pakistan on nuclear programs which is a matter of concern for India.**
- Special attention is not being given to the cultural relations between India and South Korea, as a result incidents based on racial discrimina-

tion are increasing.

- There was an agreement between India and South Korea to increase strategic partnership a decade ago, but that agreement is still limited on paper or it can be said that not much progress has been made in this regard.
- **The Indo-Pacific region** has the highest contribution in world trade but India's relations with these island countries are not as strong as they should be. Which may create difficulties for India in future in both strategic and commercial areas.

#### India-South Korea Complement Each Other:

- On one hand, while India is focusing on implementing its '**Act East Policy**', on the other hand, South Korea is also working with North-East Asia, South-East Asia, Australia and India as per its '**New South Policy**'. Will strengthen its strategic and trade relations.
- **India's population is 24 times that of South Korea, while in terms of per capita GDP it is only 16th of South Korea.** Thus, the relationship between the two complements each other because while South Korea has capital along with advanced technology and experts, **India has a huge market and availability of raw materials which both countries can take advantage of. Due to which both the countries can strengthen their strategic and trade relations between themselves.**
- Unlike India, South Korea is completely dependent on sea imports for its energy needs, while both India and South Korea are peninsular countries. In such a situation, amid India's growing influence in the Indo-Pacific region, there is a common interest of both the countries in the security of maritime traffic. The convergence of mutual interests between India and South Korea also facilitates technology transfer.
- The Indian Navy's dominance in the Indian Ocean may prove useful for Seoul. At the same time, South Korea's shipbuilding capabilities can prove helpful for India. South Korea's cooperation in shipbuilding modernization for military

and commercial use in India can prove to be a **'win-win deal'**.

- From drones to air defense guns and effective border surveillance systems, there are many fronts of partnership on which both the countries are discussing. If India gets access to the sensitive surveillance systems developed by South Korea in the Demilitarized Zone adjacent to North Korea, then it can prove to be effective for India in dealing with the challenges of infiltration along the Line of Control with Pakistan. India and South Korea are also talking about joint development and production of missile air-defense systems.
- Both India and South Korea are in support of the Indo-Pacific Policy. Moreover, like India's Act East Policy, South Korea's New South Policy also aims at economic, diplomatic, and To strengthen strategic relations.
- In view of the increasing trade war between America and China, India needs a new market. In such a situation, India can give a new direction to economic relations with South Korea.

#### Way Forward:

- The way the mutual relations between the two countries are currently deepening in order to contribute to the contribution of both India and South Korea in providing peace and security at the global level, is reflected in the mutual strategic, trade and economic development of both the countries. Cultural relations have attracted the attention of the global world towards mutual needs and requirements but there is a need to take it further so that both the countries can contribute to world peace and security.
- India's **'Act East Policy'** and South Korea's **'New South Policy'** still need to be strengthened to reduce growing regional instability.
- To emphasize on joint research, joint production of defense equipment and joint export of its strategic, trade, cultural and defense industrial cooperation, India needs to include South Korea among its top priority countries as South Korea is a strong ally, the country has been a

major supplier of arms and military equipment to India. Therefore, India and South Korea currently need to work together for regional stability.

## INDIA – BANGLADESH RELATIONS IN THE CURRENT GEOPOLITICAL PERSPECTIVE

### Why in the News ?

- In the general elections held in India's neighboring country Bangladesh in the month of January 2024, Bangladesh Prime Minister Sheikh Hasina's party **'Awami League'** got a big victory. Out of 299 seats, Awami League has won 222 seats. The other big political party **'Jatiya Party'** got only 11 seats. Independent candidates have won 65 seats. In Bangladesh, any party/parties with majority need 151 seats to form the government.
- 14 candidates from the minority community have won the elections, out of which 12 candidates are from the Hindu community. It is noteworthy that Hindu community in Bangladesh comes under the category of 'minority religion/community'. The main opposition party **'Bangladesh Nationalist Party (BNP)'**, which stayed away from this general election, has rejected this election victory and demanded re-voting/election.
- A day after securing a massive majority in the general elections, Prime Minister Sheikh Hasina on Monday said – **'India is a 'close friend' of Bangladesh and both the neighbors have resolved many problems bilaterally.'**
- The **'Awami League Party'** led by Prime Minister Sheikh Hasina has won the general elections for the fourth consecutive time.
- India played a great role in the emergence and rise of Bangladesh as an independent country during the Bangladesh Liberation War in 1971 AD. India was the first country to recognize Bangladesh as a separate and independent country.
- Bangladesh Liberation Day, 16 December, is cel-

celebrated as “**Victory Day**” in India.

- The unique bonds of India-Bangladesh relations have been created by their mutual shared sacrifices.
- The Prime Minister of India recently called the current state of India–Bangladesh bilateral relations a ‘**Sonali Adhyay**’ (golden phase).



### Parliament of Bangladesh :

- There is a parliament in Bangladesh which is called ‘**Jatiya Sansad**’ or “**House of the Nation**”. There are 350 members in this Parliament. Out of these 350 members, 300 members are elected through voting while 50 seats are reserved for women on the basis of vote share. To form the government in Bangladesh, any political party is required to win 151 seats and **parliamentary elections are held here every five years.**

### History of Bangladesh :

- Before 1947, Bangladesh was a part of India. At that time Bangladesh was called ‘**East Bengal**’. Eight years after the partition of India and Pakistan, i.e. in the year 1955, the name of East Bengal was changed to ‘**East Pakistan**’. After the war between India and Pakistan in 1971, ‘**East Pakistan**’ became an independent country called ‘**Bangladesh**’. At that time, the power of Bangladesh came into the hands of ‘**Awami League Party**’ and Sheikh Mujibur Rahman became the first President and then Prime Minister of Bangladesh. **He is also called the ‘Founder of Bangladesh’.** Sheikh Mujibur Rahman was the Prime Minister of Bangladesh from 17 April 1971 to 15 August 1975, but he was

later assassinated. After the assassination of Sheikh Mujibur Rahman, the reins of ‘**Awami League Party**’ was taken over by his daughter Sheikh Hasina. In the year 1981, Sheikh Hasina was elected the leader of ‘**Awami League Party**’. He served as the Prime Minister of Bangladesh twice, from 1996 to 2000 and from 2008 to 2013. Sheikh Hasina was serving as the Prime Minister of Bangladesh even at the time when the opposition party had boycotted the elections in 2014. After independence from Pakistan in 1971, 12 general elections have been held in Bangladesh so far.

### Border Issues with India and Bangladesh :

- India-Bangladesh relations are rooted in tradition, culture, language and mutual values such as secularism, democracy and other commonalities. From 1947 to 1971 AD. Till then Bangladesh was a part of Pakistan. It was formed from the ‘divided areas of Bengal and Assam’ of British India. The people of this region started protesting against the dominance, dominance and imposition of Urdu language by West Pakistan. He started protesting against the unfair treatment of Bengali culture and language in contemporary world politics. The citizens there also demanded their equal representation in the government and their fair share of political power. It is noteworthy that Sheikh Mujibur Rahman led the popular resistance to West Pakistani domination.

### Importance of Bangladesh for India :

- From the current ‘geopolitical point of view’, ‘**Bangladesh**’ is extremely important for India in many ways. Negligence in bilateral relations with Bangladesh will prove detrimental to India’s national interests. Bangladesh has the longest land border with India, extending for approximately 4,096 kilometers. Additionally, Bangladesh shares its borders with the Indian states of Assam, Mizoram, Meghalaya, Tripura and West Bengal. There is also a maritime border located between these two countries. Bangladesh is also working on many important projects with India.
- Bangladesh’s geographical location also plays an



essential role in the **Indian Ocean Region (IOR)**. The Bangladesh Navy plays a vital role in ensuring that maritime channels of communication remain free from pirates and other threats to maritime trade.

- Bangladesh is also the gateway (entry point) to the north-eastern states of India. Such important initiatives will help in the socio-economic development of the North-Eastern region of India. Bangladesh is important for India for many reasons.
- **Geopolitical** : Bangladesh neighbors India and shares a long land, river and maritime border. This makes it important for India's security and foreign policy. For example, India needs cooperation from Bangladesh to counter the Chinese '**String of Pearls**'.
- **Economic** : India-Bangladesh have close economic relations. India is one of the largest trading partners of Bangladesh. For example, bilateral trade in 2021-2022 was US\$18.2 billion.
- **Cultural** : India and Bangladesh have a shared history, culture and heritage. The people of the two countries are linked by strong cultural and family ties and Bangladesh has a large population of people of Indian origin.
- **Strategic**: Bangladesh is located at the intersection of South Asia and Southeast Asia and is important for India's Act East policy, which aims to build closer ties with countries in Southeast Asia.
- **Environmental Concerns** : Bangladesh and India share cross-border rivers and ecosystems, making it important for both countries to cooperate on issues such as water management and flood control. For example, conservation of the Sundarbans requires coordinated efforts.

### Challenges In India-Bangladesh Relations In The Current Geopolitical Context :

At present there are following obstacles and challenges between India and Bangladesh –

#### China Factor of Bangladesh :

- China is increasing its investment in the sectors

of infrastructure development, energy and telecommunications in Bangladesh. For example – China is increasing its investment in the construction of BRI and Chittagong port. More than 25 energy projects, including Bangladesh's second nuclear power plant and the Bangabandhu communications satellite, are being funded by China. Several port development projects are underway. China's '**One Belt One Road Initiative**' has also entangled Bangladesh, and China's proximity is becoming a cause of security concerns for India.

### Problem of Rohingya Refugees :

- Bangladesh is home to approximately 11 million Rohingya Muslims. The disaster in Myanmar has prompted the departure and migration of its citizens. India has cordial relations with Myanmar and Bangladesh and does not want to jeopardize mutual relations in such a situation. Apart from carrying out 'Mission Insaniyat' as a humanitarian aid operation, India has no direct involvement in resolving this conflict. As a result, there has been a significant divergence in bilateral relations with Bangladesh. As a result, there has been a significant difference in the bilateral relations between India and Bangladesh.

### Illegal Infiltration and Security in Border Areas :

- **The Border Security Force (BSF)** has recently targeted and killed smugglers and illegal immigrants from Bangladesh. In Bangladesh, this sparked public outrage and the '**Bangladesh Rifles**' shot Indian Army members attached to the BSF in provocation. Many defense experts have linked this current incident to religious indoctrination or religious fanaticism of the Bangladesh Army under the influence of the hardline religious organization ISI.

### Teesta River Dispute Between India and Bangladesh:

- In the year 2011, an agreement was made between the two countries under mutual agreement to keep the water flow of the river to minimum. According to that agreement, India will get 42.5% water, Bangladesh will get 37.5% and the remaining 20% water flow of the river will

be free. Was given the right to do. Due to some disagreements, this agreement has not been implemented yet.

- The Teesta River is a tributary of the Ganga River and begins in Sikkim before passing through Bengal and Bangladesh. India has 55 percent share in the river water.
- Bangladesh wants more water from India than what it already receives.
- The fourth largest cross-border river of Bangladesh is the Teesta River.
- In Bangladesh, the Teesta floodplain covers an area of 2,750 square kilometers for irrigation and fishing.
- 83 percent of this river's watershed – the land area where water is stored – is in India, while 17 percent is in Bangladesh.
- Another important subject of conflict in the Teesta river dispute is hydropower.
- There are at least 26 projects operating on this river, most of which are located in the Indian state of Sikkim. The Teesta river water dispute between the two countries is an important reason for wreaking havoc on mutual partnership.



### Geopolitical Challenges:

- India–Bangladesh relations have generally been cordial, but have also involved some geopolitical challenges, such as border disputes. There is a long-running dispute between India and Bangla-

desh over the demarcation of the common border, especially in the areas of Assam and Tripura.

### Illegal Immigration:

- Residents of Indian states bordering Bangladesh have faced substantial socio-economic-political challenges as a result of the significant influx of migrants. Due to illegal migration and unblocked flow of migrants across the Bangladeshi border into India has made the mutual relations between the two countries more strained.

### Lack of Basic Infrastructure :

- Inadequate basic infrastructure and connectivity is hindering the growth of economic relations between the two countries. As a result, border tension between Bangladesh and India is not a new thing. A 4,096 km long land border and 180 km long sea border separate India from Bangladesh. The Comilla-Tripura land border, which extends for 6.5 kilometers, has not been demarcated, leaving the border dispute unresolved and connectivity challenges still persist between the two countries.

### Challenges Arising in the Economic Sector :

- Non-tariff barriers between India and Bangladesh: Both India and Bangladesh face non-tariff barriers to each other, such as lengthy customs procedures and bureaucratic red tape, which have hindered trade between the two countries. This has created hindrances, which need to be rectified and rationalized very soon.

### Security Challenges :

- **Terrorism:** India has accused Bangladesh-based terrorist groups of carrying out attacks in India and called on Bangladesh to provide greater co-operation to India in combating terrorism.
- **Insurgency:** According to defense expert sources, the United Liberation Front of Assam (ULFA), National Democratic Front of Bodoland and National Liberation Front of Tripura all run camps in Bangladesh.
- India also has strong evidence that ULFA has several successful income-generating ventures in Bangladesh which it continues to use to fi-

nance its militant/insurgent operations in India.

## Energy Challenges:

### Farakka Barrage Controversy :

- Diversion of water from Ganga to Hooghly river has been a major cause of concern raised by Bangladesh several times in the past and both the countries should find an immediate solution between themselves.
- Tension still persists between India and Bangladesh over the distribution of water of Brahmaputra and Ganga rivers.

### Conclusion:

The current unresolved and disputed issues between India-Bangladesh relations can be resolved through the following means –

- **Resolving the Teesta River water dispute among themselves** : Both India and Bangladesh should mutually establish a consensus towards demarcating the boundary of Teesta River water sharing between themselves and reach a mutual agreement in a time bound manner.
- **Moving towards establishing better connectivity** : There is a strong need for both India and Bangladesh to enhance their maritime or coastal connectivity, roadways, railways and inland waterways by further strengthening cooperation and enhancing a strong and sustainable communication and sustainable pathways. .
- **Energy Security** : As the global energy crisis is increasing all over the world, it is important that India and Bangladesh cooperate in using clean and green energy to make South Asia self-reliant in the energy sector.
- **India-Bangladesh Friendship Pipeline** : which will help carry high-speed diesel from India to northern Bangladesh, needs to be further strengthened.
- **Focusing towards Comprehensive Economic Partnership Agreement (CEPA) negotiations** : Focusing towards India-Bangladesh Comprehensive Economic Partnership Agreement (CEPA) negotiations which started in 2018, the mutual economic relations between India and Bangladesh will have to be further strengthened so that in future Economic relations between the two countries will become stronger.
- **Countering China** : Assisting Bangladesh with critical technologies and financial assistance





will further strengthen India's ties and will go a long way in helping India counter China's influence.

- **Dealing with the refugee crisis :** India and Bangladesh can encourage other countries of the **South Asian Association for Regional Cooperation (SAARC)** to develop a SAARC Declaration on Refugees, laying down a specific procedure to determine the status of refugees and economic migrants. be announced.
- At present there is a lot of scope for improvement in bilateral relations between India and Bangladesh. Collaboration and integration should be the foundation of connection. Peace is the most important condition for progress. As a result, there is a need for competent border management to provide a peaceful, secure and crime free border.
- Bangladesh's textile industry is its strength, which helps it maintain its competitive edge.
- Due to India's large domestic market, India's inclination towards any country will be significant, which will benefit the exporting country.
- India must balance its priorities and provide strategic support to a friendly nation's industry.

## INDIA-UK DEFENSE RELATIONS

### Why in the News?

- Recently, India's Defense Minister Rajnath Singh and Britain's Defense Minister Grant Shapps attended the UK-India Defense CEO Roundtable in London. Mr Singh said that India wants to develop a partnership with Britain for cooperation, co-creation and co-innovation, so that both the countries can do great things together. Welcoming investment and technology cooperation from the UK, the Defense Minister said that India is ready with skilled human resources, a strong foreign direct investment and business environment and a large market as India moves towards becoming a developed econo-

my by 2047.



### New Chapter of India-UK Relations Begins :

- Currently, having Rishi Sunak, a person of Indian origin, as the Prime Minister of Britain is a golden opportunity for India and Britain to work together on global issues and implement the Roadmap 2030 for bilateral relations.
- A free trade agreement between India and the UK will lead to economic growth and development by increasing import and export flows, increasing investment flows (both outward and inward), increasing productivity through more efficient allocation of resources and greater openness to international competition. An increase in prosperity is expected.
- Under a free trade agreement, two partner countries reduce the import duty on mutually traded products, which benefits both the countries. Since India has always seen Britain as a 'gateway' for trade with EU countries, the free trade agreement will be a win-win deal not only for Britain but also for India.
- Britain started a strategic partnership with India in 2004. Under this strategic partnership, Britain is with India in counter-terrorism, nuclear activities and civil space programme. Now it depends on the new British Prime Minister Rishi Sunak how seriously he takes the new strategic partnership of mutual relations. If Britain's new Prime Minister Rishi Sunak gives his approval to the trade agreement as well as the Migration and Mobility Partnership Agreement, then it will be easier for trained people from India to go to Britain and do jobs or business there.



### Broad Context of India-UK Bilateral Relations :

- The historical relations between India and the United Kingdom have been a modern and strong partnership.
- With the changing times, the multi-faceted bilateral relations between India and the UK have only deepened and strengthened with the strategic partnership signed in 2004.
- 'A joint annual summit and regular meetings envisage a new and dynamic partnership between the India and UK Foreign Ministers.
- Defense, nuclear energy, science and technology, space, civilian security, counter-terrorism, economic relations, education and culture have been important areas of mutual cooperative relations between India and the UK.
- The UK has always supported India's proposal for permanent membership of the UNSC and has also been an important interlocutor for India in global contexts within the **European Union (EU), G-8 and G-20 groups.**

### Latest Developments in India – UK Relations :

- India and the UK are in talks to create a pioneering partnership to boost cooperation in critical strategic technologies. The proposed partnership is expected to focus on semiconductors, telecommunications, critical minerals and other technologies with strategic implications.
- There is also a focus on connecting Indian companies with state-of-the-art research facilities based in the UK focusing on **5G technology and other critical technologies in the telecommunications sector.**
- There is an urgent need to pave the way for transfer of research talents between the two countries and to further intensify its mobility.
- Under the agreement between India and Britain, **it will remove the red tape coming in the way of major cooperation.** It will launch new joint research plans aimed at delivering progress on some of the biggest issues facing the world, from climate change and pandemic preparedness to AI and machine learning.

- The agreement aims to enable accelerated and deepened collaboration on science between the two countries, with the aim of helping economic growth, creating jobs for skilled workers and improving the quality of life of people in the UK and India, as well as around the world. Have to improve.

### Political Relations Between India and Britain :

- Britain (United Kingdom) has a High Commission in New Delhi and five Deputy High Commissions in Mumbai, Chennai, Bangalore, Hyderabad and Kolkata. India also has a High Commission in London and two Consulates in Birmingham and Edinburgh.
- India and Britain have strong ties based on history and culture.
- The Indian diaspora in Britain is one of the largest ethnic minority communities in the country, with approximately 1.5 million people of Indian origin in Britain according to the 2011 census, accounting for about 1.8 percent of the total population and contributing 6% to the country's GDP. Are.
- India and Britain are also members of the Asian Development Bank and the World Trade Organization.
- Three Presidents of India have paid state visits to the United Kingdom, namely Sarvepalli Radhakrishnan in June 1963, Ramaswamy Venkataraman in October 1990, and Pratibha Patil in 2009 respectively.
- Indian Prime Ministers, including Manmohan Singh and Narendra Modi, also visited Britain during his tenure as Prime Minister of India.
- Queen Elizabeth II of the United Kingdom also paid state visits to India in November 1963, April 1990 and October 1997.
- There have been regular exchanges of visits at the Prime Ministerial level under the strategic partnership since 2004.

### Economic Relations Between India and Britain :

- Economic and trade matters are guided by the institutional dialogues of the India-UK Joint Economic and Trade Committee, the Economic and Financial Dialogue and the India-UK Financial

Partnership.

- Indian multinational companies have contributed greatly to Britain's trade and economy. According to data received till 2019, Indian companies in Britain had produced more than 48 billion pounds.

#### **Educational Relations Between India and Britain :**

- The Education and Research Initiative (UKIERI) was launched in 2005 by the United Kingdom and India with the aim of focusing on higher education and research, schools and professional and technical skills.
- Joint Working Group on Education, Newton-Bhabha Fund and scholarship schemes are some of the other educational initiatives taken by both the countries to maintain bilateral relations.
- The UK also supports the Skill India Mission launched by the Indian central government and has announced a new commitment of up to £12 million.
- During the visit of the Prime Minister of India to the UK in November 2015, **the following announcements related to education were made –**
- 2016 was declared as the UK-India Year of Education, Research and Innovation.
- Virtual partnership was started at the school level to enable the youth so that people from one country can experience the school education system of the other country. Along with this, they can develop understanding among themselves about the culture, traditions and social and family systems of each other country.
- The United Kingdom plans to send 25,000 UK students to India through the **"Generation UK-India Programme"** by 2020, including 1000 UK interns with Tata Consultancy Services in India by 2020.
- The third phase of the UK India Education and Research Initiative has also been launched.

#### **Cultural Relations Between India and the United Kingdom :**

- India and Britain signed a Memorandum of Understanding on Cultural Cooperation in July 2010.

- The **Nehru Center (TNC)**, established in 1992 in London, is the cultural complex of the High Commission of India in the UK. It organizes a wide range of cultural programs on its premises.
- Midnight Freedom Run was organized by the Indian High Commission in London on the mid-night of 14–15 August, 2017 to commemorate 70 years of India's independence.

#### **India – UK Defense Relations :**

- Cooperation in the defense sector is another important pillar of bilateral cooperation. During the Prime Minister's visit to the UK in November 2015, both countries agreed to further deepen their defense ties by establishing capability partnerships in strategic areas.
- At the tri-service level, joint exercises and extensive exchanges between the three services are regularly conducted by both India and the UK.
- India is a major strategic partner for the United Kingdom in the Indo-Pacific region, both in terms of market share and defense, as evidenced by the signing of the 'Defence and International Security Partnership' between India and the United Kingdom in 2015. Also underlined. Is.
- For the UK, the successful conclusion of an FTA with India will boost its ambitions of a 'Global Britain' as the UK needs and wishes to expand its markets beyond Europe post-Brexit.
- The UK is seeking to take advantage of opportunities in the developing economies of the Indo-Pacific region to strengthen its place on the global stage as an important global actor.
- for India. The United Kingdom is a regional power in the Indian Pacific Ocean region as it has naval facilities in Oman, Singapore, Bahrain, Kenya and the British Indian Ocean Territory.
- The United Kingdom has also confirmed US\$70 million from the British International Investment Fund to support the use of renewable energy in India, which will help build renewable energy infrastructure and develop solar power in the region.

- India has also sought easier market access for fisheries, pharma and agricultural products as well as duty concessions for labour-intensive exports.



### **Current Major Bilateral Issues Between India And Britain:**

#### **Extradition of Indian Economic Offenders:**

- The most important issue is the issue of extradition by the UK of Indian economic offenders who are currently under asylum in the UK and are using the foreign legal system to their advantage. Vijay Mallya, Nirav Modi and other criminals have long sought refuge in the British legal system, despite Indian economic crime cases being registered against them, which involve extradition.

#### **Non-Acceptance of White – British Citizens :**

- White Britain's rejection of India's growth as a global power, especially through the media, is another cause of concern for India.
- Under the leadership of the present Prime Minister, India has overtaken Britain as the fifth largest economy in terms of GDP and is continuously growing.
- There is no difference between a modern and self-confident India and a British colonial India on the basis of race or the imperial legacy of the British Empire.

#### **Major Differences Between the Indian Parliamentary System and the British Parliamentary System :**

- In Britain the head of state (King or Queen) is a hereditary position, whereas in India the head

of state (President) is elected. In place of the British monarchical system, there is a republican system in India.

- The British system is based on the principle of sovereignty of Parliament, whereas in India the Parliament is not supreme and exercises limited and restricted powers due to the written constitution, federal system, judicial review and fundamental rights.
- In India, the Prime Minister can be a member of either of the two houses of the Parliament. Whereas in Britain, the Prime Minister must be a member of the lower house of Parliament (House of Commons).
- In India, even a person who is not a member of Parliament can be appointed as a minister for a maximum period of six months, whereas in Britain, only members of Parliament are appointed as ministers.
- There is a system of legal responsibility of the minister in Britain, whereas there is no such system in India. Unlike Britain, ministers in India are not required to countersign official acts of the head of state.
- The 'Shadow Cabinet' is a unique institution of the British cabinet system. It is formed by the opposition party to balance the ruling cabinet and prepare its members for future ministerial office. There is no such institution in India.
- The parliamentary system of government in India is largely based on the British parliamentary system, but it has never been a replica of the British system.

#### **Way Forward:**

- The deep ties of culture, history and language already provide the UK with a potentially strong base from which to deepen ties with India.
- Faced with entirely new circumstances, India and Britain must understand that both need each other to achieve their larger goals.
- The thinking of both the countries on many other issues like dealing with terrorism in the

changing global scenario, increasing cooperation in the Indo-Pacific region, supporting India's candidature in the United Nations Security Council, environment, joint production of defense equipment and modern weapons and the situation in Afghanistan. Is the same. Both the countries have shared their views on these issues through many global forums.

- If both the countries join hands on a free trade agreement, then the economic partnership of both the countries will reach new heights. This will increase bilateral trade and provide employment to people on a large scale. Britain's coming together with India on the Free Trade Agreement raises hopes because today India has become the largest market in the world. The Indian economy is booming all over the world. As of today, India has overtaken Britain and achieved the title of the country with the fifth largest economy in the world. Economic experts believe that by the year 2030, India can become the country with the third largest economy in the world. According to another report, India will overtake Germany in 2027 and Japan in 2030 in the size of the economy. Perhaps this is the reason why Britain is very serious about the trade deal with India.

## PRELIMS QUESTION

### Q1. What is a Junta?

- A religious ceremony
- Constellation of stars
- A legal tender issued by government
- A military group that rules a country after seizing power

### Q2. Which of the following strait connects the Persian Gulf with the Gulf of Oman and the Arabian Sea:

- Strait of Hormuz
- Strait of Malacca
- Bering strait
- Sunda strait

### Q3. Which of the following are NOT correctly matched?

- Strait of Bab-el- Mandeb – between Red Sea and Gulf of Aden
- Strait of Malacca – between Peninsular Malaysia and Sumatra
- Strait of Hormuz – between Oman and Iran

### Select from the following codes

- 1 and 2
- 2 and 3
- 1 only
- None

### Q4. Which channel lies to the north of Lakshadweep and separates it from the Indian mainland?

- Ten Degree Channel
- Nine Degree Channel
- Eight Degree Channel
- Minicoy Channel

### Q5. What environmental factor is essential for coral reef growth and development?

- Extremely low temperatures
- High salinity
- Insufficient lighting
- Water temperatures that are warm

### Q6. Coral reefs are known as the “rainforests of the sea” because of their ability to:

- A lot of birds
- Rich biodiversity
- Heavy rainfall
- Height above sea level

### Q7. Which of the following statements regarding the International Court of Justice (ICJ) is correct?

- The ICJ has jurisdiction over criminal cases only.
- The ICJ has jurisdiction over disputes between states.
- Judges are elected by the General Assembly.

### Which of the following statements are incorrect?

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



**Q8. What is the primary function of the International Court of Justice (ICJ)?**

1. Enforcing international law.
2. Resolving disputes between states.
3. Conducting criminal trials.

**Which of the following statements is/are correct?**

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

**Q9. Consider the following statements with reference to the death sentences of eight former Indian sailors who have been granted interim stay by the Qatar court.**

1. The eight Indians working in Al Dahra Company based in Qatar are accused of spying.
2. Consular access was also provided to these accused prisoners on several occasions.
3. India can use International Court of Justice (ICJ) jurisdiction in this case.
4. 'Dahra Global Technologies and Consultant Services' was also involved in the production of advanced submarines of Italian origin, which are also known for their stealth warfare capabilities.

**Which of the above statement/statements is./are correct?**

- (a) Only 1, 2 and 3
- (b) Only 2, 3 and 4
- (c) All of these.
- (d) None of these.

**Q10. Consider the following statements:**

1. The strait of Bab el Mandab connects Red sea to the Indian ocean
2. The Council of Arab and African littoral States of the Red Sea consists of 8 countries including Saudi Arabia, UAE & Egypt
3. In FY 2023-24, India is Europe's largest supplier of refined fuel
4. In FY 2023-24, Iraq is India's biggest supplier of crude oil followed by Russia

**How many of the above statements is/are correct?**

- (a) One only
- (b) Two only
- (c) Three only
- (d) All of the above

**Q11. What is the 2 + 2 Dialogue running between South Korea and India?**

- (a) A Rail project between South Korea and India.
- (b) A roadmap for cooperation in joint production of naval systems between South Korea and India.
- (c) Establishment of India-South Korea Technology Exchange – Center in the premises of 'National Small Enterprises Corporation' located in New Delhi.
- (d) Along with the joint meeting at the ministerial level between the two countries, South Korea and India, talks are being held at the secretary level.

**Q12. Consider the following statements in the context of India-Bangladesh relations in the current geopolitical context.**

1. The name of Bangladesh Prime Minister Sheikh Hasina's party is 'Awami League' which has won 222 seats in the 2024 general elections.
2. Bangladesh Liberation Day, 16 December, is celebrated as "Victory Day" in India.
3. Sheikh Mujibur Rahman is also called the 'Founder of Bangladesh'.
4. The Prime Minister of India recently called the current state of India-Bangladesh bilateral relations a 'Sonali Adhyay' (golden phase).

**Which of the above statement / statements is correct?**

- (a) Only 1, 2 and 3
- (b) Only 2, 3 and 4
- (c) None of these.
- (d) All of these.

**Q13. Consider the following statements regarding India-Britain relations.**

1. Britain has been an important interlocutor for India in global contexts within the European Union (EU), G-8 and G-20 groups.
2. There are about 1.5 million people of Indian origin in Britain, which is about 1.8 percent of

the total population and contribute 6% to the country's GDP.

3. India and Britain are also members of the Asian Development Bank and the World Trade Organization.
4. The Nehru Center (TNC), established in 1992 in London, is the cultural complex of the High Commission of India in the UK.

Which of the above statement /statements is correct?

- (a) Only 1, 2 and 3.
- (b) Only 2, 3 and 4
- (c) None of these.
- (d) All of these

## ANSWERS

S. No.	Answer
1.	D
2.	A
3.	D
4.	B
5.	D
6.	B
7.	A
8.	B
9.	C
10.	B
11.	D
12.	D
13.	D

## MAINS QUESTIONS

**Q1.** How China is impacting the relation between India and Myanmar and what steps are taken by India to tackle the issue of the rohingya refugee crisis in Rakhine state?

**Q2.** Discuss the potential economic implications for India in the event of war or instability between Iran and Pakistan. Consider factors such as trade routes, energy resources, and economic partnerships.

**Q3.** Explore the impact on regional security if there is a conflict or instability between Iran and Pakistan, and its consequences for India's security concerns. Discuss potential measures India could take to address these challenges.

**Q4.** What is India out campaign in Maldives and how does it impact India-Myanmar relations?

**Q5.** Examine the influence of climate change on India-Maldives ties, especially in light of rising sea levels and environmental challenges. How have the two countries worked together to tackle and minimise these problems?

**Q6.** Evaluate the effectiveness of the International Court of Justice in addressing human rights issues. Discuss specific cases where the ICJ has succeeded or faced limitations in dealing with human rights violations.

**Q7.** In the context of the interim stay on death sentence of Indian former naval personnel in Qatar, discuss the legal options before India and its impact on India-Qatar relations.

**Q8.** In the context of the recent developments in Global Nuclear Order, critically analyse India's Nuclear policy. Also provide suggestive measures to restore the "disarmament policy" in an increasingly polarised world. (15M, 250 Words)

**Q9.** What is the 'Comprehensive Economic Partnership Agreement' between India and South Korea? In the context of strategic, cultural and economic relations between India and South Korea, discuss how India's 'Act East Policy' and South Korea's 'New South Policy' can affect the increasing regional instability?

**Q10.** Explain the economic, political, cultural and strategic relations between India and Bangladesh in the context of regional stability by discussing the various dimensions of India-Bangladesh relations in the current geo-political context.

**Q11.** Explain the various aspects of India-UK relations by discussing in detail the various dimensions of the India-UK Free Trade Agreement.



## UNDERSTANDING DARK ENERGY IN THE UNIVERSE

### Why in the News?

The composition of energy in the universe is characterized by a subtle equilibrium among various forms of matter and radiation.

Taking up a substantial 68%, dark energy significantly influences and directs the expansion of the universe.

### Overview:

Dark energy, a mysterious and enigmatic form of energy, constitutes a substantial portion of the total energy content of the universe. This elusive force is believed to be the driving factor behind the observed accelerated expansion of the cosmos, with approximately 68% of the universe attributed to dark energy, while dark matter accounts for about 27%. Remarkably, all the ordinary matter on Earth and everything observed in the universe with scientific instruments amounts to less than 5% of the total cosmic composition.

### Key Points to Grasp about Dark Energy:

- **Invisible Force Steering Expansion:**
  - Dark energy, an unseen force, plays a pivotal role in the accelerated expansion of the universe. Unlike gravity, which attracts objects, dark energy acts as a repulsive force, pushing galaxies away from each other.
- **Characteristics of Space:**
  - Contrary to the conventional idea of space

as an empty void, dark energy introduces a new perspective. Space is not merely an empty expanse; it is a dynamic, stretchable medium that responds to the presence of energy.

- **Expansion Dictated by Energy Forms:**

- The universe's expansion is not uniform, and different forms of energy contribute uniquely to this process. Whether it's matter, radiation, or dark energy, each type influences how a specific region of space expands or contracts.

- **Balancing Act:**

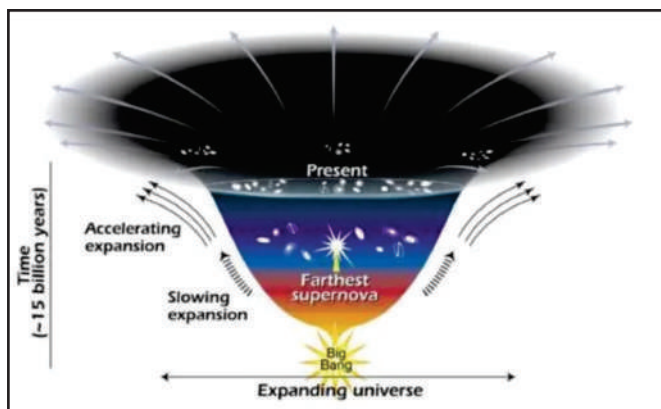
- Dark energy dominates the universe's energy budget, dictating the overall rate of space expansion. Striking a delicate balance with other forms of energy is crucial for the stability of the cosmos.

- **Implications:**

- The quantity of dark energy holds significant implications for the observable universe. Too much positive energy could result in galaxies moving away faster than light, limiting visibility. Excessive negative energy might lead to the universe collapsing.

- **Diluteness of Dark Energy:**

- Although it holds a position of dominance, dark energy is remarkably sparse throughout the immense expanse of the universe. In a cubic kilometer, it's as sparse as a single sugar crystal, raising questions about the nature and distribution of this mysterious force.



### Possible Explanations of Dark Energy:

- **Property of Space:**
  - Albert Einstein's gravity theory with a cosmological constant suggests that "empty space" possesses its own energy, causing the universe to expand faster as more space comes into existence.
- **Quantum Theory of Matter:**
  - The quantum theory of matter proposes that "empty space" is filled with temporary ("virtual") particles continuously forming and disappearing.
- **Fifth Fundamental Force:**
  - Speculative theories propose a fifth fundamental force to explain dark energy, often referred to as "quintessence." However, none of these theories have been conclusively proven, rendering dark energy as "the most profound mystery in all of science."

## ANTIMICROBIAL RESISTANCE

### Why in the News ?

As per the recent survey of NCDC released by the Health Ministry only 6% of patients received antibiotics after a confirmed diagnosis, still 94% of patients received the prescriptions for these medications even before the diagnosis of the infection.

### What is Antimicrobial Resistance?

Antimicrobial Resistance (AMR) refers to the capacity of bacteria, viruses, parasites, and fungi, among other microbes, to adapt and resist the actions of antimicrobial medicines, thereby making these medications useless. Antimicrobial-resistant bacteria have the ability to proliferate and spread, which can result in the development of infections that are difficult or impossible to treat.



### What Causes Antimicrobial Resistance(AMR)?

- **Unsupervised access to antibiotics:** When antibiotics are used in the dairy, poultry, and animal husbandry industries, they naturally sneak a way into other organisms' food chains and hence affect humans as well.
- **Insufficient Dosage and Duration:** Bacteria that survive antibiotic prescriptions may become resistant if the course is not finished or if the whole dose is not taken as advised. A selection pressure brought about by insufficient doses favors the survival of resistant strains.
- **Poor hygiene:** Microbes spread through trash and wastewater from healthcare facilities, pharmaceutical companies, and animal husbandry.
- **Antibiotic Overuse and Misuse:** Excessive and inappropriate antibiotic use, both in human and animal health, contributes significantly to the development of resistance. This includes unnecessary antibiotic prescriptions for viral illnesses, inadequate treatment courses, and self-medication.
- **Globalization and Travel:** Increased worldwide travel and trade help in the spread of resistant bacteria around the world. Resistant strains have the ability to go beyond boundaries, making it difficult to limit and manage their spread.

### Issues caused by Antimicrobial Resistance



- **Treatment Options Are Limited:** The number of effective antibiotics is decreasing as resistance grows. The absence of new medicines in development worsens the problem by giving doctors less treatment options for infections.
- **Mortality and morbidity have increased:** Infections caused by resistant bacteria are related with increased mortality and illness severity. Treatment failures increase healthcare expenditures and put an increased load on healthcare systems.
- **Global Health Danger:** AMR is a serious danger to world health because it can make common illnesses untreatable. This decreases the effectiveness of medical operations that depend on the availability of effective antibiotics, such as surgery, chemotherapy, and organ transplants. For example, Multi-Drug Resistant Tuberculosis (MDR-TB) is increasing exponentially.
- **Infectious Disease Burden:** India has a high burden of infectious diseases such as tuberculosis, malaria, typhoid and cholera. The rise of AMR makes it harder to treat these diseases successfully. It's especially troubling given that these diseases are already big public health issues in the country.
- **Limited Research and Innovation:** To combat AMR, research and innovation in the development of novel antibiotics, diagnostics, and vaccines are important. The lack of such attempts in India is worrying as it decreases the arsenal of techniques available to treat resistant illnesses.
- **Economic Consequences:** AMR results in increased healthcare costs due to prolonged treatments, additional testing, and the need for more expensive second-line drugs. Productivity losses from prolonged illness and increased mortality also impact economies.

#### Steps taken to control antimicrobial resistance?

- **Access, Watch, and Reserve (AWaRe)** – It is an initiative by WHO to consider the impact of various antibiotics.
- **Global-One Health Approach:** A quadripartite project by UNEP, WHO, FAO, and the World Or-

ganization for Animal Health which advocates best practices to minimize AMR levels.

- **National Action Plan (NAP) for AMR :** The NAP aims to raise awareness, strengthen surveillance, promote research, and improve infection prevention and control.
- **Delhi Declaration on AMR:** It is an inter-ministerial consensus, which was signed during the inauguration of NAP-AMR by ministers from the relevant ministries committing their unwavering support for AMR containment.
- **Red Line campaign:** To raise awareness about the dangers of using antibiotics without a prescription and to avoid irrational usage of prescription-only antibiotics.

#### Way Forward –

- Antimicrobial resistance is a future health disaster that requires a multidisciplinary strategy as well as R&D funding.
- Antimicrobial prescriptions should be based on definitive diagnosis rather than an assumption.
- The economic contribution of AMR is enormous, therefore it is vital to create and implement policies using a holistic “One Health” approach.

#### Conclusion

The emergence of antibiotic resistance is a huge public health issue all over the world. It makes even mild infections difficult to cure, resulting in serious illnesses and deaths. As a result, a loud call to halt this menace must be issued at the local, national, and global levels, which would eventually aid in the achievement of SDG 3, ensuring excellent health and well-being for everyone.

ADITYA-L1 MISSION



#### Why in the News?

ISRO will carry out a critical maneuver on January

6 to place Aditya-L1 in L1 orbit. It was launched on September 2 last year. The spacecraft will be able to observe the sun without any eclipses once it arrives at its final location

### About Aditya-L1 mission

- Aditya-L1 is India's first space-based observatory-class solar mission, observing the Sun from a distance of 1.5 million km.
- Aditya-L1 is also ISRO's second observatory-class mission, succeeding AstroSat (2015).
- The journey is much shorter than Mangalyaan, India's previous Mars orbiter effort.
- The spacecraft will be set up in a halo orbit around the Lagrangian point 1 (L1) of the Sun-Earth system.

### Objectives of Aditya-L1 mission

- It will examine the dynamics of the Sun's upper atmosphere (chromosphere and corona).
- It will study the chromospheric and coronal heating, the physics of partly ionized plasma and the formation of coronal mass ejections.
- It will study particle dynamics from the Sun by analyzing the in-situ particle and plasma environment.
- It will examine the physics of the solar corona as well as its heating mechanism.
- It will study the Coronal Mass Ejection's (CME) evolution, dynamics, and genesis.
- To Analyze the sequence of processes that occur at many levels (chromosphere, base, and extended corona) and its impact on solar eruptive events.
- Temperature, velocity, and density measurements of coronal and coronal loop plasma.

### Payloads and its objectives

The spacecraft has been equipped with "seven" payloads designed to observe the photosphere, chromosphere, and the Sun's outermost layers (known as the corona) using electromagnetic and

particle detectors. Using the unique vantage position of L1, four payloads would directly observe the Sun, while the remaining three payloads would conduct in-situ particle and field research near the Lagrange point L1.

#### ● Visible Emission Line Coronagraph (VELC):

- To examine the solar corona
- To Pay focused attention to the fluctuations of Coronal Mass Ejections.

#### ● Solar Ultraviolet Imaging Telescope (SUIT):

- To record near-ultraviolet (UV) images of the Solar Photosphere and Chromosphere.
- To Measure fluctuations in solar irradiance in the near ultraviolet.

#### ● Solar Low Energy X-ray Spectrometer (SoLEXS):

- Works as a Soft X-ray spectrometer.
- Study solar X-ray flares over a wide X-ray energy range.

#### ● High Energy L1 Orbiting X-ray Spectrometer (HEL1OS):

- Acts as a Hard X-ray spectrometer.
- Study solar X-ray flares over a wide X-ray energy range.

#### ● Aditya Solar Wind Particle Experiment (ASPEX):

- Solar wind and energetic ions will be studied by it.
- It examines the distribution of their energy.

#### ● Plasma Analyser Package for Aditya (PAPA):

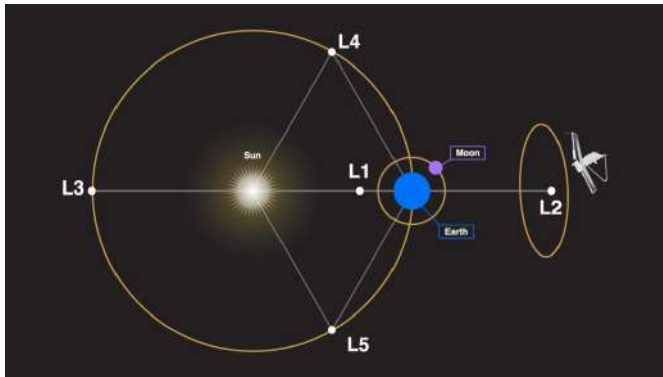
- Collect data regarding the characteristics and composition of plasma in interplanetary space.
- Provides information on how solar wind interacts with the environment.

#### ● Advanced Tri-axial High-Resolution Digital Magnetometers (MAG):

- To measure the interplanetary magnetic field's intensity in space.

### Lagrangian Points

Lagrange points are locations in space where the gravitational pulls of two big orbiting bodies, such as the Earth and Sun, form zones of equilibrium in which a smaller object can orbit with little fuel. There are '5' Lagrange points, named L1 to L5. "L1, L2, and L3" are located along the line that connects the two enormous masses. While L4 and L5 create equilateral triangle corners, with the huge masses at the other two.



### Importance of Lagrangian Point 1

L1 is a gravitationally stable location in space where the gravitational forces of two enormous bodies, such as the Sun and Earth, balance out. L1, located around 1.5 million kilometres from Earth and facing the Sun, offers an uninterrupted view of the Sun with no eclipses or occultations. There are many advantages of locating a solar observatory at L1.

- It can continuously watch the Sun with no obstructions. This enables the tracking of solar storms on their way to Earth from their start on the Sun's surface.
- Unlike probes in elliptical heliocentric orbits such as the Parker Solar Probe, the satellite can be positioned to always face the Sun. Since the gravitational forces are matched, maintaining position at L1 requires relatively little fuel.
- L1 provides an early advantage point for monitoring coronal mass ejections and solar flares before they have an impact on Earth. This gives space weather forecasters more time to prepare.
- A worldwide solar observatory, the Solar and

Heliospheric Observatory (SOHO), is already installed at L1, confirming its utility.

### Solar Missions Of different countries –

#### The United States-

**Solar and Heliospheric Observatory (SOHO):** This is a collaboration between the NASA-European Space Agency (ESA) launched in 1995 to study the Sun's outer atmosphere and solar wind.  
**SDO (Solar Dynamics Observatory):** Launched by NASA in 2010, it examines the Sun at many wavelengths in order to better understand solar changes and their impact on Earth.

#### ESA (European Space Agency):

**Solar Orbiter:** Solar Orbiter is a joint mission of ESA-NASA that will be launched in February 2020 to examine the Sun's polar regions and heliosphere.

#### Japan-

**Hinode (Solar-B):** This mission was launched in 2006 as a collaboration between the Japan Aerospace Exploration Agency (JAXA), NASA, and the United Kingdom. It studies the Sun to learn about its magnetic fields and how they affect solar activity.

#### China-

**Advanced Space-based Solar Observatory (ASO-S):** China's ASO-S mission is meant to observe and study the Sun at multiple wavelengths.

#### Russia-

**Coronas-Photon:** Launched in 2009 by the Russian space agency Roscosmos, this mission studies solar flares by observing the Sun in X-rays and gamma rays.

## SICKLE CELL ANAEMIA

### Why in the News?

According to the Health Ministry, over one crore people have been screened as part of the National Sickle Cell Anaemia Elimination Mission till now. Under this mission government aimed to eliminate

Sickle Cell Anaemia by 2047.

### About Sickle Cell Anemia

- Sickle cell disease (SCD) is a category of red blood cell abnormalities that are inherited (genetic).
- Haemoglobin, a protein that transports oxygen, is found in red blood cells (RBCs). Red blood cells in good health are round and flow through small vessels to carry oxygen to all regions of the body. In SCD, the hemoglobin is abnormal, causing the RBCs to become hard and sticky, like a C-shaped farm tool known as a "sickle."
- It is passed down from parents who have a faulty 'beta globin' gene.
- Since sickle cells die early, there is a continual lack of RBCs.
- They become caught and obstruct the blood flow when they go through small blood arteries. This can result in pain as well as other dangerous complications (health issues) such as infection and acute chest pain.
- As per various research and screening programmes, tribal groups in India have a higher prevalence of haemoglobinopathies (blood illnesses) than non-tribal communities.
- It is common among communities living in malaria-endemic areas. The sickle cell trait thereby offered an evolutionary benefit, by providing certain people with immunity during malaria epidemics.

### Symptoms

- **Pain Crises:** People with sickle cell anemia frequently have extreme pain episodes termed as pain crises. These crises occur when sickle-shaped red blood cells block blood flow through small blood vessels, causing pain and organ damage.
- **Anemia :** Sickle cells have a shorter lifespan than normal red blood cells, resulting in Anaemia, or a chronic lack of red blood cells. As a result, patients may have weariness, weakness, and pale skin.
- **Hands and Feet swelling:** Sickle cell anemia can induce blood vessel obstructions, resulting in swelling, particularly in the hands and feet.

- **Frequent infections:** Frequent infections are more common in people with sickle cell anemia because their spleens are destroyed.
- **Delayed growth :** Sickle cell anemia can cause growth and development delays in children.

### Treatment

While there is no cure for sickle cell anemia, various treatments aim to manage symptoms, prevent complications, and improve the quality of life for individuals with the condition.

- **Pain Control:** Pain crises are frequently treated with pain drugs, and in extreme cases, hospitalisation may be required for more intensive pain management.
- **Hydroxyurea:** This medicine stimulates the development of fetal haemoglobin, which aids in the prevention of sickle cell disease.
- **Blood Transfusion :** Regular blood transfusions can help improve the amount of normal red blood cells and decrease problems.
- **Hydration:** Keeping hydrated helps to keep red blood cells from sickling.
- **Folic acid supplements :** Folic acid medications are frequently administered to assist the body in producing new red blood cells.
- **Bone Marrow Transplant:** In extreme situations, especially in children, a bone marrow transplant may be considered to replace the faulty bone marrow with healthy donor cells.
- **Gene Therapy :** To treat the disorder, the DNA inside the haemoglobin gene is altered.

### Initiatives by Government of India to tackle sickle cell anaemia

- **National Sickle Cell Anaemia Elimination Mission:** To enhance the care of all Sickle Cell Disease patients for a better future, as well as to reduce the disease's prevalence, through a comprehensive integrated approach to screening and awareness campaigns.
- **Vision:** By 2047, India will have totally eliminated sickle cell anemia.



ed sickle cell disease as a public health problem.

- **NHM (National Health Mission):** The National Health Mission (NHM), is a flagship programme of the Indian government, contains provisions for disease prevention and management, including hereditary anomalies such as sickle cell anaemia. Within the NHM, specific programs and initiatives target awareness, early detection, and treatment of sickle cell anemia.
- The Union Health Minister stated in Budget 2023 that the government intends to distribute “special cards” across tribal territories, and that the mission will be funded through the National Health Mission.

### Way Forward

- **Early Detection and Screening:** Strengthening and expanding genetic counseling and testing programs to identify carriers early on and provide necessary information to affected families.
- **Public Education and Awareness:** Establishing a supportive and informed environment by implementing long-term public awareness initiatives to educate communities about the disease, its hereditary basis, and the significance of genetic testing.
- **Research and Development:** Continued research investment for better understanding of the genetic and molecular elements of sickle cell disease, resulting in the development of more effective treatment options and potential treatments.

### Conclusion

We can strive towards better outcomes for individuals and families impacted by sickle cell disease by promoting a collaborative and educated environment, ultimately aiming for a future where the impact of this genetic ailment is minimised and effective treatments, if not cures, become a reality.

### USING AI IN CANCER TREATMENT



### Why in the News?

Given an increasing number of cancer cases, the

scarcity of professionals poses a major challenge in reducing mortality rates. To fill this gap, Mumbai's Tata Memorial Hospital (TMH), India's largest cancer hospital, is resorting to artificial intelligence (AI). The hospital is using deep learning to create a cancer-specific customised algorithm which helps in early-stage cancer identification by establishing a 'Bio-Imaging Bank' for cancer.



### About Bio-imaging Banks :

- The Bio-Imaging Bank is a collection of radiology and pathology pictures that are linked to clinical data, outcome statistics, therapy specifics, and other metadata.
- It is a type of biosensing that uses light to create non-invasive visual illustrations of biological processes in cells, tissues, and anatomy for more precise diagnosis and treatment. Bioimaging attempts to interfere with biological processes with as little disruption as possible.
- It is also used to obtain information on the 3-D structure of an observed specimen from the outside, i.e. without physical disturbance.
- Methods for visualising biological material that has been fixed for observation are also included in bioimaging.
- Deep learning is being used by the hospital to create a cancer-specific customised algorithm that will aid in the initial stages of cancer identification.

### How AI will help in detection of Cancer :

- **Data Learning:** AI analyses huge databases of radiological and pathological pictures to iden-

tify features linked with specific malignancies.

- **Early detection:** Early detection is achieved by detecting tissue alterations and probable cancers.
- Chronic patient data generated by thorough imaging aids in understanding the behaviour, treatment response, illness recurrence, and life expectancy. This data is used by AI and machine learning procedures to construct forecasts for cancer survival and to influence treatment aggressiveness.
- The compilation of a cancer image bank enables the development of algorithms for various tumours, the assessment of treatment reactions using only images, and the avoidance of wasteful chemotherapy for anticipated non-responders.
- This means that children will be exposed to far less radiation while keeping diagnostic quality with no degradation.

#### Use of AI in future in treating cancers and tumours :

- **Personalised treatment :** AI is projected to personalise treatment techniques based on patient profiles, optimise therapeutic outcomes.
- **Facilitating Diagnosis:** AI could allow physicians to diagnose complex cancers with a single click, increasing the accuracy of cancer treatments.
- **Continuous Learning:** As AI learns and develops, it offers more accurate cancer diagnosis, improved patient outcomes, and assistance to healthcare workers.

#### National Cancer Grid :

In India, the National Cancer Grid (NCG) is a network of major cancer centres, academic institutions, and regional cancer centres that work in tandem to standardise cancer care and facilitate oncology research. The National Cancer Grid's major objective is to improve cancer care quality, support research, and ensure that the most recent advances in cancer treatment reach patients across the country.

#### Conclusion :

While AI has enormous potential, it is critical to

combine technical breakthroughs with human skill, as well as address ethical and legal issues, in order to provide the best possible care for patients.

### SUCCESSFUL TESTING OF PEM FUEL CELL BY ISRO



#### Why in the News?

ISRO has achieved success in testing a 100 W class Polymer Electrolyte Membrane Fuel Cell (PEMFC)-based Power System aboard the orbiting vehicle POEM3. POEM3, which was launched onboard PSLV-C58.

#### About PEMFC Test

- Its goal is to evaluate Polymer Electrolyte Membrane Fuel cell operation in space and collect data that will help in the layout of systems for upcoming missions.
- It is an electric generator that operates on electrochemical principles, similar to those used in batteries, rather than the combustion reactions used in traditional generators.
- ISRO tested a PEMFC of 100 watts that transforms both oxygen and hydrogen into energy, water, and heat. This method has various advantages over typical space power sources, which includes:
  - PEMFCs convert gasoline directly into energy, resulting in much higher efficiency than batteries.
  - PEMFCs emit just water as a byproduct, avoiding the need for sophisticated waste management systems.
  - The PEMFC water can be utilised for onboard consumption or electrolysis to generate extra oxygen. These characteristics make them excellent choices for space travel by human missions when electric power, water, and heat are required because a single system may handle numerous mission needs.
- Fuel Cells have enormous societal potential for

application as well –

- They are regarded as the best choice for replacing engines in various vehicles and powering backup power systems today.
- It can provide the same range and fuel recharge time as a traditional engine, providing it an unambiguous benefit over batteries, and is projected to promote emission-free transportation.

### Applications for future missions

- Fuel cells are ideal for manned space missions because they provide critical power, water, and heat from just one device.
- PEMFCs are perfect for running the envisioned Indian space station due to their great efficiency and water production capabilities.
- PEMFCs have the potential to provide a dependable and sustainable source of power for long-duration journeys to deep space destinations like Mars.
- Fuel cells have comparable performance and refuelling time to conventional engines and are intended to provide emission-free transportation.

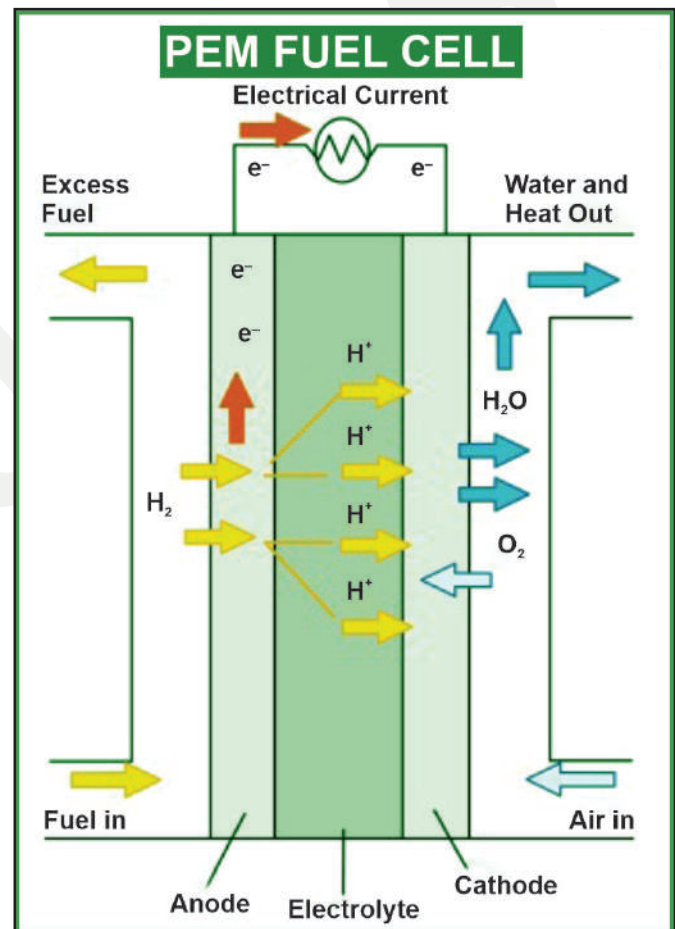
### About POEM (PSLV Orbital Experimental Module) initiative

- Energy generation, telemetry, telecommand stabilisation, orbital station holding, and orbital manoeuvring are all supported by ISRO's POEM platform, which has standard interfaces and packaging.
- This enables space agencies and private enterprises to create, test, and evaluate experimental orbital payloads.
- ISRO's PSLV rocket is a four-stage rocket in its conventional configuration.
  - The first three spent stages re-enter the water, while the fourth goes up in space as debris after sending satellites into orbit.
  - The POEM programme, on the other hand,

uses the wasted final stage as a “stabilised platform to conduct experiments.”

### What is a Fuel Cell?

- A fuel cell is a type of an electrochemical device that directly transforms the chemical energy of a fuel (such as hydrogen) and an oxidant (such as oxygen) into electricity.
- Unlike batteries, which store chemical energy before converting it to electrical energy, fuel cells produce electricity continuously for as long as they are supplied with fuel and an oxidant.



### How Fuel Cell works or its operation

- At the anode, hydrogen molecules ( $H_2$ ) are divided into protons ( $H^+$ ) and electrons ( $e^-$ ). Only protons can travel through the PEM to the cathode.
- Electrons pass through an external circuit to the cathode, creating an electric current.

- At the cathode, oxygen molecules (O<sub>2</sub>) from the air interact with protons and electrons to generate water (H<sub>2</sub>O).
- Heat is produced during the reaction, and this heat can be exploited to heat certain applications.

### Some important types of fuel cell –

- **Polymer Electrolyte Membrane Fuel Cells:** These fuel cells are perfect for portable applications since they incorporate a thin but solid polymer membrane as the electrolyte.
- **SOFCs (Solid Oxide Fuel Cells):** SOFCs have a ceramic electrolyte which can withstand high temperatures. They are more expensive and sophisticated than PEMFCs, but they are more efficient.
- **Alkaline Fuel Cells (AFCs):** AFCs use a potassium hydroxide (KOH) liquid electrolyte. They tend to be less efficient in comparison to PEMFCs and SOFCs, but they are more affordable and more tolerant of fuel impurities.

## QUANTUM TECHNOLOGY

### Why in the News?

The **Mission Governing Board (MGB)** of the National Quantum Mission (NQM) recently met to discuss NQM's execution strategy and deadlines, as well as the development of the **Mission Coordination Cell (MCC)**. The MCC will be established in an institution chosen by the Department of Science and Technology (DST) based on merit and existing infrastructure.

### About National Quantum Mission:

- The **National Quantum Mission (NQM)**, scheduled for the period **2023-2031**, is a visionary initiative aimed at fostering scientific and industrial research and development (R&D) in Quantum Technology (QT).
- Under the purview of the Ministry of Science & Technology, the Department of Science and

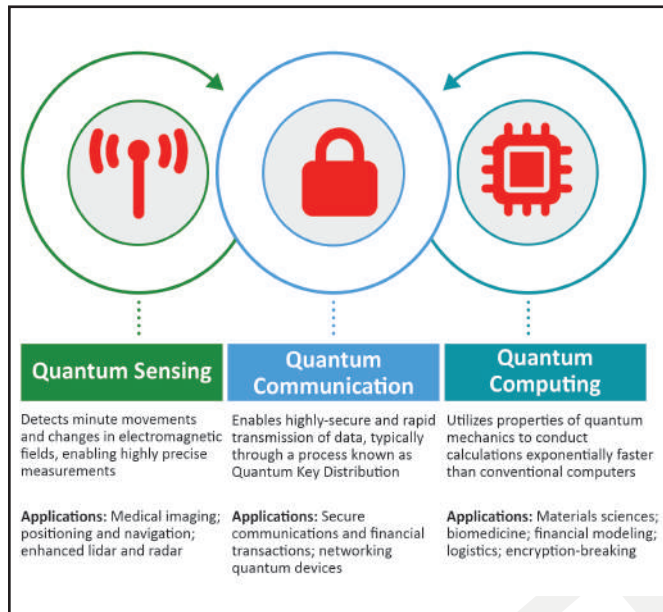
Technology (**DST**) will spearhead the implementation of this mission. India's adoption of the NQM makes it the seventh country globally, following in the footsteps of the US, Austria, Finland, France, Canada, and China.

- **Mission Objectives:** The **NQM** seeks to cultivate and amplify scientific and industrial **R&D in Quantum Technology**, with a specific focus on creating a dynamic and innovative ecosystem. Its overarching goal is to position India as a leading player in the realm of quantum technologies.
- **Key Features:**
  - The mission outlines ambitious targets, including the development of intermediate-scale quantum computers featuring **50-100 physical qubits within five years** and scaling up to **50-1000 physical qubits within eight years**.
  - Unlike traditional computers that process information using bits (1 and 0), quantum computers leverage 'qubits' or 'quantum bits' as fundamental processing units.
  - The NQM envisions advancements in various facets of quantum technology. This includes the development of high-sensitivity magnetometers for applications such as **precision timing (atomic clocks), communications, and navigation**.
  - Additionally, it will support the design and synthesis of quantum materials like superconductors, novel semiconductor structures, and topological materials for the fabrication of quantum devices.
- **Quantum Communications Development:** One of the key thrust areas of the mission is the establishment of **secure quantum communications**. This involves satellite-based quantum communication between ground stations within India over a 2000 km range, facilitating secure quantum communications with other nations, and implementing inter-city quantum key distribution over 2000 km. The mission also envisions the creation of a multi-node Quantum network with quantum memories.



- **Four Thematic Hubs:** To facilitate focused research and development, the **NQM will establish four Thematic Hubs (T-Hubs)** in leading academic and National R&D institutes. These hubs will specialize in Quantum Computation, Quantum Communication, Quantum Sensing & Metrology, and Quantum Materials & Devices.

### Advantages of Quantum Technology



### Quantum Computing Power:

Quantum computers have the potential to **execute complicated calculations** much quicker than traditional computers. This could lead to groundbreaking advancements in fields like cryptography, optimization problems, and drug discovery.

### Enhanced Computational Capabilities:

Quantum technology allows for the simultaneous processing of multiple possibilities, significantly enhancing computational capabilities. This could lead to solving intricate problems that were previously deemed unsolvable.

### Quantum Communication Security:

Quantum communication ensures highly secure information transfer. **Quantum key distribution (QKD)** offers a level of security that is theoretically immune to hacking attempts, providing a robust solution for secure communications.

### Quantum Sensors and Imaging:

Quantum sensors exhibit **unprecedented sensitivity, enabling precise measurements** beyond classical limits. Quantum imaging technologies have the potential for enhanced resolution, benefiting fields such as medical imaging and geological exploration.

### Quantum Metrology for Precision Measurements:

Quantum technology facilitates precision measurements with minimal uncertainty. This can significantly impact areas such as navigation, timekeeping, and the development of advanced sensors.

### Quantum Materials and Devices:

Quantum materials offer unique properties that can be harnessed for the development of novel devices. Superconductors and topological materials, for instance, hold promise for creating advanced electronics and quantum devices.

### Disadvantages of Quantum Technology

#### Technical Complexity:

Quantum technology involves complex theoretical concepts and intricate experimental setups. The development and maintenance of quantum systems require specialized knowledge, making it challenging for widespread adoption.

#### Quantum Decoherence:

Quantum systems are susceptible to decoherence, where the fragile quantum states become disrupted by external influences. Maintaining coherence over extended periods, essential for computing tasks, remains a significant challenge.

#### High Cost of Implementation:

Building and maintaining quantum systems entail significant costs. The specialized equipment, ultra-low temperatures required for certain quantum operations, and the need for isolation from external factors contribute to the high cost of implementation.

#### Limited Scalability:

Achieving scalability in quantum systems, especially in quantum computing, remains a formidable challenge. As the number of qubits increases, the

probability of errors and the need for error correction mechanisms escalate, impacting the overall scalability.

### Sensitivity to External Conditions:

Quantum systems are highly sensitive to their environment. Any interference, such as temperature fluctuations or electromagnetic fields, can lead to errors in quantum computations, posing a challenge for real-world applications.

### Lack of Quantum Software and Algorithms:

The development of efficient quantum algorithms and software lags behind hardware advancements. The absence of a comprehensive suite of quantum software limits the practical utilization of quantum computers for specific applications.

**Conclusion:** While Quantum Technology Promises Unprecedented Advancements, Addressing the Associated Challenges is Crucial for Realizing its Full Potential. Ongoing Research and Development Efforts Aim to Overcome these Hurdles, Paving the Way for a Future where Quantum Technology Transforms Various Aspects of Computing, Communication, and Sensing.

## SPACE MISSIONS 2024



### Why in the News?

- The year 2023 proved to be a milestone in India's space policy as India became the **first and only country** to achieve "*soft landing*" on the *South pole of the moon* through **Chandrayaan 3**. In the same year, NASA's **OSIRIX mission** extracted sample from asteroid Benu.
- With important missions of ISRO such as "**Gaganyaan**" & "**Aditya L-1**" missions & a joint mission with NASA i.e; **NISAR** planned for the year 2024, the important space missions around the world hold grave importance from the *examination perspective*.

### International Space Missions Planned For 2024:

### Europa Clipper:

- It is a mission by the US Space agency **NASA** which aims to explore the Europa i.e; one of the **largest moons of the planet Jupiter**.
- Europa is *slightly smaller than the earth's moon*, with a surface that is made of ice.
- The interest of scientific community lies in the prospect of Europa harbouring a **saltwater ocean** which may contains *more than twice the volume of water* contained in the oceans of the Earth
- Thus Europa can act as a suitable habitat for **extra-terrestrial life**.
- The mission will be launched on the private space agency **SpaceX's Falcon heavy rocket**.

### Artemis 2:

- With the launch of Artemis 2, **NASA** plans to *send humans again to the moon* after a gap of 51 years (last time a man landed on the moon was in 1972).
- Astronauts on their first flight aboard NASA's Space Launch System (SLS) rocket and **Orion spacecraft** will venture around the Moon.
- It will launch the crew from NASA's Kennedy Space Center in Florida.
- The mission also holds *socio-cultural significance* as it aims to ensure the landing of the **first women and first person of colour**, on the moon.
- It follows the mission Artemis 1 which sent an uncrewed capsule into orbit around the moon in late 2022

### Viper:

- Volatiles Investigating Polar Exploration Rover (VIPER) is a robot the size of a golf cart that **NASA** will use to explore the **moon's south pole** in late 2024.
- It aims to study the *origin and distribution of water* on the Moon and help determine how humanity can harvest the Moon's resources for

future human space exploration.

- It will also analyse where the Moon's ice is most likely to be found and easiest to access, making VIPER the **first-ever resource mapping mission** on another celestial body.
- It will search for **volatiles**, which are molecules that easily vaporize, like water and carbon dioxide, at lunar temperatures.

#### Lunar Trailblazer:

- Like VIPER, NASA's Lunar Trailblazer will also look for water on the moon.
- But while *VIPER will land on the moon's south pole*, **Lunar Trailblazer will only orbit the moon**
- It will measure the temperature of the surface and mapping out the locations of water molecules across the globe.

#### Prime-1:

- NASA's PRIME-1 will help scientists search for water at the lunar South Pole, and will be the *first in-situ resource utilization demonstration on the Moon*.
- PRIME-1, which will be mounted to a lunar lander, is made up of two components – The Regolith and Ice Drill for Exploring New Terrain (**TRIDENT**) and the Mass Spectrometer for Observing Lunar Operations (**M-Solo**)

#### Martian Moon Exploration (MMX):

- It is a Martian Moon exploration mission of the **Japanese Space agency (JAXA)**
- It aims to study the origin of the Moons of Mars named: **Phobos and Deimos**
- The scientists are intrigued whether Phobos and Deimos are former asteroids that Mars captured into orbit with its gravity or if they formed out of debris that was already in orbit around Mars.
- The MMX will land on the surface of Phobos & collect a sample before returning to Earth.

#### Hera Mission:

- It is a mission by the **European Space Agency (ESA)** to replicate **NASA's DART mission** which studied the physical properties of the asteroids **Didymos & Dimorphos**.
- The DART mission of NASA also tested a planetary defense technique called "**kinetic impact**" when it collided with Dimorphos to change its orbit.
- "Kinetic impact" technique can prove useful if humanity ever finds a potentially hazardous object on a *collision course with Earth and needs to redirect it*.

#### Conclusion:

India needs to strictly implement the **Space Policy 2023** to realise the vision of the Prime Minister i.e; "*Space is the space to be in*" and further cooperate with other space agencies such as NASA to expand the Research & exploration to cement its position as "**Space power**".

#### X-RAY POLARIMETER SATELLITE (XPOSAT)



#### Why in the News?

ISRO on 1st Jan, 2024 launched **XPoSat on PSLV C-58** from the Satish Dhawan Space Centre in Sriharikota into an eastward low inclination orbit, becoming only **Second nation in the world** to send an observatory to study astronomical sources such as **black holes, neutron stars** among others.

#### What Is X Ray Polarimeter Satellite (XpoSat)?

- XPoSat is only the second X Ray polarimetry mission in the world, after **NASA's Imaging X ray Polarimetry Explorer (IXPE)** launched in 2021.
- It is the first dedicated scientific satellite from ISRO to carry out research in space based polarization measurements of **Xray emission from celestial sources**.
- It carries two payloads, namely **POLIX** (Polarimeter Instrument in Xrays) and **XSPECT** (Xray Spectroscopy and Timing).

- POLIX has been developed by the Raman Research Institute and will track Xrays in the **830 kiloelectronvolt (keV) energy range** and observe emissions from around 50 sources in five years.
- XSPECT by the Space Astronomy Group of URSC, Bengaluru.

#### Other Missions Launched On Pslv C-58:

During the mission, the PSLV Orbital Experimental Module3 (**POEM3**) experiment was also executed to meet the objective of other payloads developed by start-ups, education institutions and ISRO centres:

- Radiation Shielding Experimental Module (RSEM) by TakeMe2Space
- Women Engineered Satellite (WESAT) by LBS Institute of Technology for Women
- BeliefSat0 Amateur radio satellite by K.J. Somaiya Institute of Technology
- Green Impulse Transmitter (GITA) by Inspeity Space Labs Private Limited
- Launching Expeditions for Aspiring Technologies Technology Demonstrator (LEAPTD) by Dhruva Space Private Limited
- RUDRA 0.3 HPGP by Bellatrix Aerospace Private Limited
- **ISRO Fuel cell Power System (FCPS)** by VSSC: FCPS payload is significant as it has potential applications in **India's space station which is proposed to come up by 2035.**
- ISRO and Sibased High Energy cell by VSSC, ISRO.

#### Other Important Space Missions of ISRO In 2024:

##### Gaganyaan Mission:

- Gaganyaan project envisages demonstration of **human spaceflight** capability.
- It aims to launch crew of **3 members** to an orbit of **400 km for a 3 days mission** and bring them back safely to earth, by landing in Indian sea waters.
- **LVM3 rocket** – The well proven and reliable

heavy lift launcher of ISRO, is identified as the launch vehicle for Gaganyaan mission. It consists of **solid stage, liquid stage and cryogenic stage.**

##### Nisar Mission:

- NASA-ISRO SAR (NISAR) is a **Low Earth Orbit (LEO)** observatory being jointly developed by **NASA and ISRO.**
- NISAR will map the **entire globe in 12 days.**
- It will provide spatially and temporally consistent data for understanding changes in Earth's ecosystems such as **ice mass, vegetation biomass, sea level rise, ground water and natural hazards** including **earthquakes, tsunamis, volcanoes and landslides.**
- It carries **L and S dual band** Synthetic Aperture Radar (SAR), which operates with Sweep SAR technique to achieve large swath with high resolution data.
- **NASA** is responsible for providing the **L-Band SAR payload system** in which the ISRO supplied **S-Band SAR payload** and both these SAR systems will make use of a large size (about 12m diameter) common unfurl able reflector antenna .
- In addition, NASA would provide engineering payloads for the mission, including a **Payload Data Subsystem, High-rate Science Downlink System, GPS receivers and a Solid State Recorder.**
- ISRO is responsible for providing the **SSAR data handling system, High rate downlink system, spacecraft bus systems, the GSLV launch system and Mission Operations Related Services.**

##### Aditya L-1:

- Aditya L1 shall be the first space based Indian mission to **study the Sun.**
- The spacecraft shall be placed in a halo orbit around the **Lagrange point 1 (L1)** of the Sun-Earth system, which is about 1.5 million km from the Earth.
- A satellite placed in the halo orbit around the L1 point has the major advantage of continu-



ously viewing the Sun **without any occultation/eclipses**. This will provide a greater advantage of observing the solar activities and its effect on space weather in real time.

- The spacecraft carries 7 payloads to observe the **photosphere, chromosphere and the outermost layers of the Sun (the corona)** using electromagnetic and particle and magnetic field detector.

## INDIA TO JOIN SKA OBSERVATORY AS A FULL MEMBER

### Why in the News?

The Government of India has approved the participation of India in the international science project, Square Kilometre Array (SKA), at a cost of ₹ 1250 Cr. This clearance covers funds for the international SKA Observatory (SKAO) construction phase for the next seven years.

### About SKAO

- SKAO is an intergovernmental organisation dedicated to the construction and operation of sophisticated radio telescopes. Its global headquarters are at the Jodrell Bank Observatory in the United Kingdom.
- The SKAO is a network of thousands of antennas that will be deployed in remote areas of Australia and South Africa.
- The SKA project will be built in two parts, the first of which began in December 2022 (SKA1).
- SKA1 is scheduled to start operations in 2029.
- The UK, Australia, South Africa, Canada, China, France, India, Italy, and Germany are among the countries involved in the SKA's construction.

### India's participation in SKAO :

- Since its inception in the 1990s, India has played an important part in the progress of the SKAO project, through the Pune-based National Centre for Radio Astrophysics (NCRA) and other institutes.

- Within the SKA, NCRA was given charge of the successful construction and operation of the Giant Metrewave Radio Telescope (GMRT).

### Importance of SKA telescope :

It aspires to answer basic astrophysical, cosmological, and astrobiological problems. These include the origins of interstellar magnetism, the nature of dark matter and dark energy, and the search for extraterrestrial life. Some other questions scientists hoping to be answered by SKA are :

- The origins of the universe,
- The birth of the first stars
- A galaxy's life span,
- Investigating the prospect of discovering technologically advanced civilizations elsewhere in our galaxy
- Tracing the origins of gravitational waves.
- **SKA Telescope Design and Features:** A radio telescope's essential components generally comprise a 'big parabolic dish' or a collection of smaller dishes that gather and focus incoming radio waves, a 'receiver' that converts radio waves into electrical signals, and a computer unit that processes and analyses the data. The dish or array is frequently installed on a moveable construction, allowing astronomers to position the telescope towards various portions of the sky.
- In South Africa, the SKA will consist of 197 parabolic radio antennas.

### What is a Radio Telescope?

- A radio telescope is a type of telescope that detects and collects radio waves emitted by celestial objects.
- Radio telescopes, as compared to optical telescopes, are designed to capture radio waves emitted by astronomical objects.
- The wavelengths of radio waves are longer than those of visible light, ranging from a few millimetres to several metres.

- Radio telescopes, contrary to optical telescopes, can be utilised both during the day and at night.
- Radio telescopes are essential for analysing astronomical phenomena like pulsars, quasars, galaxies, and cosmic microwave background radiation. They provide insightful data about the universe, particularly on radio-emitting objects and processes.
- Astronomers can examine celestial phenomena and processes that are not visible in the optical spectrum by observing in the radio frequency range.

#### Some major Radio Telescopes are :

- Five-hundred-meter Aperture Spherical Telescope (FAST) : China
- Green Bank Observatory (GBT) : USA
- Giant Metrewave Radio Telescope (GMRT) : India
- Atacama Large Millimetre/submillimetre Array (ALMA) : Chile
- Yevpatoria RT-70 : Ukraine

#### Conclusion :

India's participation in the Square Kilometre Array Observatory project provides prospects for technological growth, worldwide cooperation, talent development, and a boost in India's reputation in the international scientific community rather than just another tool for scientific exploration.

### PRELIMS QUESTIONS

#### Q1. What is the primary cause of antimicrobial resistance (AMR)?

- (a) Underutilization of antibiotics
- (b) Proper adherence to antibiotic prescriptions
- (c) Overuse and misuse of antibiotics
- (d) Strict control of antibiotic distribution

#### Q2. Why is antibiotic resistance regarded as a worldwide health risk?

- (a) It only affects underdeveloped countries
- (b) resistant infections are easier to cure
- (c) it restricts treatment options and raises mortality rates
- (d) it has no effect on public health.

#### Q3. What is the most important factor influencing the stability of Lagrangian points?

- (a) The Earth's gravitational pull
- (b) The Sun's gravitational pull
- (c) The relative masses of the two stellar bodies
- (d) The pressure of solar radiation

#### Q4. Because of its steady position relative to Earth and the Sun, which Lagrangian point is often suggested for the placement of space-based solar observatories?

- (a) L1
- (b) L2
- (c) L4
- (d) L5

#### Q5. Which of the following statements about sickle cell trait is correct?

- (a) Sickle cell trait is a severe form of sickle cell disease.
- (b) Individuals with sickle cell trait do not carry the abnormal hemoglobin gene.
- (c) Sickle cell trait carriers are resistant to malaria.
- (d) Sickle cell trait is inherited only from the mother.

#### Q6. What is the primary function of folic acid supplementation in the management of sickle cell disease?

- (a) Reducing pain during crises
- (b) Enhancing the production of normal hemoglobin
- (c) Preventing the formation of sickle cells
- (d) Improving blood viscosity

#### Q7. What is the function of chemotherapy in the treatment of cancer?

- (a) Tumour's removal by surgery
- (b) Immune system boosting
- (c) Drug-assisted targeted killing of cancer cells
- (d) Interfering with hormone production

**Q8. Consider the following statements about Artificial Intelligence (AI):**

1. Machine learning is a subset of AI that enables machines to learn from data.
  2. Neural networks, inspired by the human brain, are not used in AI applications.
  3. Natural Language Processing (NLP) is unrelated to AI technologies.
  4. Alan Turing is often considered a founding figure in the field of AI.
- (a) 1 and 4 only  
(b) 2 and 3 only  
(c) 1, 3, and 4 only  
(d) 1, 2, and 3 only

**Q9. What environmental benefit is associated with PEM Fuel Cells?**

- (a) Increased air pollution  
(b) Reduced greenhouse gas emissions  
(c) Depletion of ozone layer  
(d) Soil contamination

**Q10. What is the byproduct of the electrochemical reaction in a PEM Fuel Cell?**

- (a) Water  
(b) Carbon dioxide  
(c) Nitrogen  
(d) Oxygen

**Q11. Consider the following statements regarding the Quantum Technology**

1. Qubit is the fundamental unit of information in quantum computing.
2. Superposition property allows qubits to exist in multiple states simultaneously.
3. Entanglement phenomenon is responsible for the secure communication offered by quantum key distribution (QKD)

**How many statements given above is/are correct?**

- (a) One  
(b) Two  
(c) Three  
(d) None

**Q12. In the context of quantum sensing, what distinguishes quantum sensors from classical sensors?**

- (a) Quantum sensors have lower sensitivity.  
(b) Quantum sensors can only measure one property at a time.  
(c) Quantum sensors exhibit unprecedented sensitivity, enabling precise measurements.  
(d) Quantum sensors are not affected by external factors.

**Q13. Consider the following statements regarding "Europa" mission recently seen in the news:**

1. It is a mission by European space agency to explore one of the largest moons of the planet Jupiter
2. While the Jupiter's moon is smaller than the earth's moon, it contains more volume of water than contained in the oceans of the Earth
3. The mission will be launched on Space X's Falcon rocket

**Which of the above statements is/are correct?**

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

**Q14. Consider the following statements regarding XPoSat launched by ISRO:**

1. It is a joint mission launched by ISRO & NASA
2. India became the third country in the world to send an observatory in the space to study astronomical sources
3. It will provide information related to Black holes & neutron stars

**How many of the above statements is/are correct?**

- (a) Only one  
(b) Only two  
(c) All three  
(d) None of the above

**Q15. Consider the following statements regarding NISAR mission recently seen in the news:**

1. It is a joint observatory being launched by NASA & ISRO which will study the entire globe in 12 days
2. NASA will provide L & S-band Synthetic Aperture Radar (SAR)
3. The GSLV launch system will be provided by ISRO
4. It will provide temporally consistent data for study of natural hazards such as Earthquake, tsunami & volcano eruptions

**How many of the above statements is/are correct?**

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five

**Q16. When it comes to studying astronomical objects, what advantages do radio telescopes have against optical telescopes?**

- (a) Improved resolution
- (b) The ability to see through clouds and interplanetary dust
- (c) Increased sensitivity to visible light
- (d) Increased magnification

**Q17. What is the objective of a radio telescope's "dish" or "parabolic reflector"?**

- (a) To improve radio signals
- (b) To steer radio waves towards the receiver
- (c) To produce radio signals
- (d) To eliminate interference from the Earth's atmosphere

## ANSWERS

S. No.	Answers
1.	C
2.	C
3.	C
4.	A
5.	C
6.	B
7.	C

8.	A
9.	B
10.	A
11.	C
12.	C
13.	B
14.	A
15.	B
16.	B
17.	B

## MAINS QUESTIONS

**Q1. Describe how agriculture contributes to antibiotic resistance. How can sustainable farming methods be used to reduce the development of resistance in animals and its possible transmission to humans?**

**Q2. What are the payloads Aditya-L1 carrying? and How would Aditya L1 Mission benefit India?**

**Q3. What are the Goals of the Aditya L1? What makes the Lagrange L1 point unique?**

**Q4. Examine the difficulties that the Indian healthcare system has in dealing with hereditary illnesses such as sickle cell anaemia. How can the current healthcare infrastructure be improved to give specialized care and assistance to people with this genetic condition?**

**Q5. Analyze the effectiveness of public awareness campaigns in India regarding sickle cell anemia. How can the healthcare system collaborate with community organizations to improve awareness, reduce stigma, and encourage proactive measures for managing the disease?**

**Q6. Examine the impact of AI on personalised medicine. What aspects should be examined for the successful deployment of AI algorithms in customised treatment programmes based on specific patient characteristics?**

**Q7. How can PEMFCs contribute to addressing energy storage challenges in renewable energy systems?**



tems?

Q8. What are the key advantages of Polymer Electrolyte Membrane Fuel Cells over other types of fuel cells?

Q9. How can quantum communication help in bolstering national security, particularly in securing critical infrastructure and communication channels.

Q10. Assess the potential impact of quantum technology on healthcare, including advancements in medical imaging, drug discovery, and personalized medicine.

Q11. Discuss the significance of GSLV (Geosynchronous Satellite Launch Vehicle) in India's space

exploration program. Highlight its capabilities and key achievements

Q12. Examine the major contributions of the Giant Metrewave Radio Telescope (GMRT) in India to astronomy. Discuss its unique features and capabilities.

Q13. What are the challenges and benefits of performing radio astronomy experiments in India, while taking into account considerations such as geographical position, interference, and collaborations with international observatories?

  
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## FOOD PROCESSING INDUSTRIES



### Why in the News?

Indian processed food exports have shown a spectacular 150% growth since the last nine years as per minister for commerce & industry, consumer affairs, food & public distribution Piyush Goyal

### Status of Food Processing Sector in India

- One of the pillars of the Indian economy, the food processing industry in India has been expanding recently.
- Representing one of the biggest sectors of the global food processing industry, it accounts for around 32% of India's total food market. About 35 million people are indirectly employed by it, in addition to 13 million directly.

### About Food processing Sector of India :

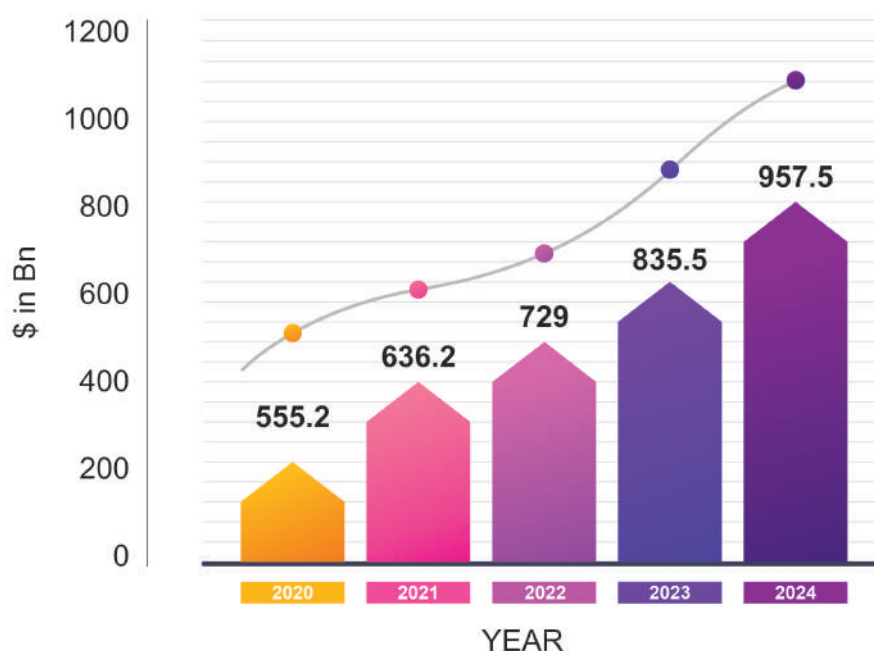
- **Agricultural Exports:** At this time, India's agricultural exports have been over \$53 billion.
- **GI tags (GIs):** India boasts 158 food and Agri Geographical Indications (GIs), emphasizing the unique and region-specific nature of its food products.

- **One District One Product (ODOP) Scheme:** The ODOP project has discovered 708 unique culinary dishes throughout districts, promoting local specialties.
- **Capital Investment in the Processed Food sector:** India's Food Processing Sector emerged as the sunrise sector and attracted FDI investments of about Rs 50,000 crore in the past nine years
- **Global Demand for Indian Foods:** The global demand for Indian dishes is increasing.
- **Potential:** The food processing market in India is expected to be worth \$535 billion by 2025.

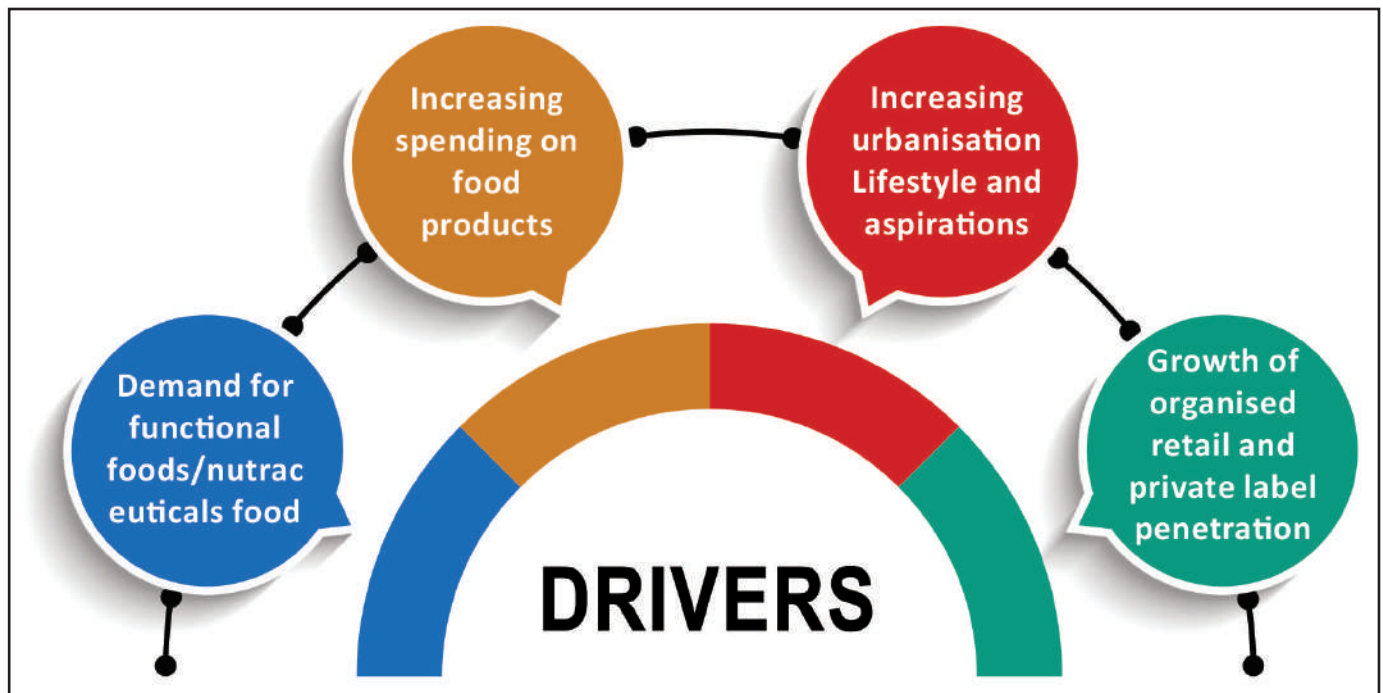
### Government Initiatives to support Food Processing Sector :

- Cold chain and food and agro-based processing

### Indian Processed Food Market







facilities were added to the list of agricultural activities covered by Priority Sector Lending (PSL) regulations in April 2015.

- In an effort to make business easier, the Food Safety and Standards Authority of India (FSSAI) changed its clearance process in 2016 from one that was based on product approval to one that was based on ingredient and additive approval. This change was made through notifications.
- Enabling **100%** Foreign Direct Investment (FDI) approval using automatic route for the food processing sector.
- A production-linked incentive scheme (PLI) for the food processing sector
- Setting of a Dedicated Food Processing Fund of Rs. 2000 crore by (NABARD).
- The MoFPI launched the **National Cold Chain Grid (NCCG)**, which aims to connect cold storage facilities nationwide in a seamless network. The nutritional value and shelf life of food products can be increased, and post-harvest losses can be decreased with the use of this network.
- **Pradhan Mantri Kisan Sampada Yojana (PMKSY)** : India's food processing industry, including the supply chain, is to be modernised

and upgraded through this scheme .

- The government offers financial support under this programme for the construction of cold storage facilities, processing facilities, and logistical support for the food processing industry.

#### Challenges Related to Food Processing Sector

- **Availability of Cold chain Network and Storage:** Significant post-harvest losses of perishable goods are caused by insufficient cold storage and transportation facilities. This has an effect on farmer revenue in addition to food quality.
- **Complicated Rules:** It can be difficult for firms to negotiate the complicated network of licences, permissions, and laws that apply to the food processing industry. Unfair competition and problems with quality might result from inconsistent enforcement of regulations.
- **Worries about Food Safety** : Maintaining the quality and safety of food requirements throughout the supply chain is still quite difficult. Food products that are tainted or contaminated can endanger public health and tarnish the industry's reputation.
- **Weak Supply Chain:** India's supply chain is extremely dispersed, which raises expenses and causes ineffi-

ciencies. Inadequate rail and road infrastructure can cause losses and delays when moving.

- **Inadequate Processing Levels:** In India, only about 10% of all agricultural and horticultural produce is processed, compared to 60–80% in wealthy countries. Lack of skills prevents value creation and product diversity.
- **Dependency on APMCs and institutional problems in the supply chain:** Before connecting to bulk processors, reliance on dispersed APMC mandi middlemen adds three to four extra steps, waste, and commission fee burdens. impedes modernising initiatives.
- **Research and Development:** The creation of novel, value-added products and innovation are hampered by a lack of funding for research and development.

#### Way Forward :

- **Waste-free Processing:** Using methods of processing that make full use of all of the raw material. For example, turning food waste into bio-fuels or producing new goods like bio-plastics or livestock feed out of food leftovers.
- **Community-based processing centres :** Developing community-based food processing plants in rural areas . By acting as hubs for nearby farmers to prepare their products, these facilities help lower post-harvest losses and generate jobs in rural areas.
- The creation of a variety of functional and nutraceutical foods suited to particular health requirements is known as nutraceutical innovation. These may have foods that have been fortified with probiotics, vital nutrients, and bioactive chemicals to treat common health issues that the Indian population faces.

#### Conclusion :

The future of food processing appears bright, so long as the government provides sufficient support. It has the power to rescue millions from malnutrition. The government faces a formidable task in developing industry in a manner that caters to small-scale businesses while also drawing large-

scale domestic and international investments.

## GLOBAL RISK REPORT

### Why in the News?

The World Economic Forum (WEF) has published the Global Risk Report 2024, which highlights some of the most serious threats that the world may encounter in the coming ten years against the backdrop of conflict, rapid technological advancement, unstable economic conditions, and global warming. A survey of over 1,500 specialists, business executives, and legislators served as the basis for the research.

### What are the findings of Global Risk Report 2024?

- **Aggravating Global Outlook:** A number of worldwide occurrences in 2023, including deadly wars, extreme weather, and social unrest, have added to a largely dire picture.
- **Technological Advancements and Security Threats:** Over the next two years, interstate armed conflict is predicted to rise to the top of the risk rankings. Technological advancements, particularly in the field of artificial intelligence, provide security dangers due to their ability to provide non-state actors with disruptive capabilities, which may in turn fuel more conflict and criminal activity.
- **Governance Challenges and Geopolitical Shifts:** Increased polarisation among world powers, particularly between the Global North and South, could provide problems for international governance. Geopolitical tensions and the growing power of Global South governments could change security dynamics and have an impact on global threats.
- **Misinformation and Disinformation Driven by AI:** The most serious threats for the next two years are misinformation and disinformation, underscoring the speed at which technological advancements are either causing new issues to arise or exacerbating preexisting ones. It is troubling that persons with specialised talents will



no longer be able to create complex synthetic content that can be used to control groups of people, thanks to the rise in Generative AI chat-bots like ChatGPT.

- **Environmental Risks at the Front:** Across all time periods, environmental risks—especially extreme weather—dominate the risk landscape. It is clear that there are issues related to climate change, biodiversity loss, and important changes to Earth systems, all of which could have permanent effects.
- **Economic Strains and Inequality:** In 2024, there will be a lot of anxiety about the cost of living crisis as well as economic dangers like inflation and a slump. Low- and middle-income nations will be disproportionately impacted by economic uncertainty, which could increase societal and environmental effects and result in digital isolation.

#### Recommendations given by the Report?

- The impact of those unavoidable risks that we can plan for can be lessened by localised policies that leverage investment and regulation, and both the public and private sectors can play a crucial role in extending these advantages to everyone.
- A single breakthrough project can also contribute to making the world a safer place if it is developed via initiatives to put the future first and concentrate on research and development.
- Even if the combined efforts of individual people, businesses, and nations may not seem like much, when they reach a certain size, they can have a major impact on reducing global risk.
- Cross-border cooperation at scale is still essential for risks that are vital to human security and development, notwithstanding the world's growing fragmentation.

#### About Global Risk

The probability of an event or circumstance that, if it materialises, would have a detrimental influence on a sizable amount of the world's population, gross domestic product, or natural resources is known as global risk. The "World Economic Forum" releases the Global Risks Report every year in advance of its

yearly summit in Davos, Switzerland.

#### About Global Economic Forum

The WEF is a Geneva, Switzerland-based non-profit organisation that was founded in 1971. It is acknowledged as the global hub for public-private collaboration by Swiss authorities. **Mission:** Dedicated to helping to transform the world a better place by influencing regional, national, and industry agendas with the help of intellectual, business, and political leaders.

#### Important Reports published by World Economic Forum

- Some of major reports published by WEF are:
  - Global Gender Gap Report.
  - Global IT Report.
  - Energy Transition Index.
  - Global Competitiveness Report
  - Global Travel and Tourism Report.

#### CURRENT RELEVANCE OF A NEW ECONOMY FOR INCLUSIVE DEVELOPMENT



#### Why in the News ?

The concept of 'inclusive development' is not new in the Indian context . At the recently concluded G20 meeting hosted by India India has drawn the attention of developed and developing countries all over the world towards the need for the development of a new economy. During the hosting and meetings of the G20, the Prime Minister of India used the motto 'Vasudevam Kutumbkam' for the G20, which meant 'One Earth, One Family, One Future . " This aptly reflects our vision for the G20 Presidency. The whole earth is like a family to us. In any family, the future of each member is closely linked to that of every other member. So, when we work together, we move forward together, leaving no one behind ."

#### Key Objectives/Priorities of a New Economy for In-

**Inclusive Growth:**

The priorities of the G20 meetings were also the following –

- Inclusive, equitable and sustainable development.
- Life (lifestyle for the environment).
- Women Empowerment.
- Digital public infrastructure and technology – enabling growth in sectors ranging from health, agriculture and education to commerce.
- Skills-Mapping, Culture and Tourism, Climate Finance, Circular Economy, Global Food Security, Energy Security, Green Hydrogen, Disaster Risk Reduction and Adaptation.
- Development cooperation, the fight against economic crime, and multilateral reform.

This concept of development emerged in a new form after 'globalization' arising from liberalization in the nineties because during liberalization, global economies got an opportunity to join together and this concept went out of the scope of countries and states and gained its importance in the global context. Was successful in maintaining. In India too, under liberalization, privatization and globalization in the nineties, India also moved towards a new economy under inclusive development and maintained its importance in the global context. At present, India is the fifth largest economy in the world, which is moving towards becoming the third largest economy in the world in the coming few years.

**Meaning of Inclusive Development:**

The meaning of inclusive development can be understood on the basis of the following criteria –

- Inclusive development is taken to mean such development which creates employment opportunities and which proves helpful in reducing poverty.
- It includes providing equality of opportunity and empowering people for education and skills, that is, it includes promoting development with equality of opportunities.

- A form of development that not only creates new economic opportunities, but also ensures equitable access to such opportunities for all sections of society.
- Objectively, inclusive development refers to a situation where high growth rates of GDP per capita are reflected in high growth rates of GDP, accompanied by reduction in inequality between the distribution of income and wealth.
- Inclusive development focuses on providing basic amenities to all sections of the population, i.e. housing, food, drinking water, education, health as well as generating means of livelihood to live a dignified life. Along with all this, it is necessary to take care of environmental protection for inclusive development because development done at the expense of the environment can neither be called sustainable nor inclusive.

**Initiatives Taken by the Government for New Economy And Inclusive Development:**

- The concept of inclusive development was first introduced in the 11th Five Year Plan. The 11th Five Year Plan continued from the year 2007 to 2012 and was the second last Five Year Plan of India. The theme of which was – "Rapid and more inclusive development". In this plan, the concept of inclusive development was introduced. It was said to improve the quality of life of all sections of people and provide them equality of opportunities.
- The 12th Five Year Plan (2012-17) completely focused on inclusive growth and its theme was – "Rapid, Inclusive and Sustainable Development". In this plan, special emphasis was given on poverty, health, education and providing livelihood opportunities. So that the growth rate of 8 percent prescribed in the plan can be achieved.
- Many schemes have been launched by the government to achieve inclusive development. These include- 'Deendayal Antyodaya Yojana', 'Integrated Child Development Programme', 'Mid-Day Meal Scheme', 'MNREGA', 'Sarva- Education campaign' etc.

- Keeping women in mind, schemes like 'Start-up India', 'Support to Training and Employment Program for Women' have been started by the government. Apart from this, schemes like 'Women Entrepreneurship Forum' and 'Pradhan Mantri Kaushal Vikas Yojana' have been started by the government. Efforts also include financial inclusion efforts for women.
- Many initiatives/schemes have also been started by the government for financial inclusion. These include important schemes like 'Mobile Banking', 'Pradhan Mantri Jan Dhan Yojana', 'Pradhan Mantri Mudra Yojana', 'Senior Pension Insurance Scheme' etc. Has been done
- Steps like Disability Act 1995, National Trust for Welfare Act 1999, SIPDA, Sugamya Bharat Abhiyan, Swavalamban Yojana and the Rights of Persons with Disabilities **Rules, 2017** have been taken by the government to include the persons with disabilities in inclusive development.
- 'Soil-Health-Card', 'Neem-Coated-Urea', 'Pradhan Mantri Krishi-Irrigation Yojana', 'Pradhan Mantri Fasal-Bima-Yojana' have been launched by the government to promote financial inclusion in agriculture sector and for farmers. And important schemes like 'National Food Security Mission' are being implemented.

#### Methods of Measurement of Inclusive Development:

- Measuring a nation's progress based on the progress of its poorest segment, i.e. measuring per capita income based on the progress of the bottom 20 percent of the population, is the best way to measure inclusive growth.
- An indicator of healthy inclusive development is that if there is an increase in per capita income then it is an indicator of healthy inclusive development.
- If a country or state has to achieve high growth rate, then the weakest sections of the society will also have to be included in the mainstream pace of development. The concept of inclusive development depends on this.

#### Need for Inclusive Development: Relevant in the Present Times.

No country can develop in the absence of inclusive development. Inclusive development is not only economic development but it is also a social and moral imperative of economic development. The importance of inclusive development in the context of the development of the new economy can be understood on the basis of the following context –

- Inclusive growth is essential for sustainable development. Therefore, if development is not sustainable then a situation of decline will arise in the economy.
- Due to imbalance in income distribution, wealth will be concentrated in a few people, as a result demand for goods will decrease and GDP growth rate will also decrease. If there is no inclusive development, there will be imbalance in income distribution.
- Due to lack of uniform inclusive development, inequality increases in different parts of the country due to which the deprived sections are not able to join the main stream of development.
- Disruptive tendencies like communalism, regionalism, racial and ethnic violence within the geographical boundaries of any country are born due to lack of inclusive development, which sometimes creates a situation of dissatisfaction in the country, as a result of which the geographical boundaries of the country **deteriorate. Disruptive tendencies like communalism and regionalism are born.**

#### Challenges Before Inclusive Development:

- Migration towards urban areas is having a negative impact on the agricultural economy due to which agricultural productivity is decreasing.
- Due to lack of basic facilities in villages, people migrate from villages to cities. Due to this, population pressure increases in cities.
- There is still a need to create permanent and long-term employment sources in rural areas because MNREGA and many other such employment related schemes are being implemented in rural areas but these cannot be included as permanent sources of employment.

- Corruption also has a negative impact on the country's economy by hindering the pace of inclusive development.

### Path to Solution/Way Forward/Conclusion:

At present, if the goal of rapid inclusive growth is to be achieved in India, then there will be a need to pay special attention to the agriculture sector, because the United Nations has set a target of eliminating all forms of poverty (unemployment, low income, poverty etc.) by the year 2030. The target is specified in Goal 1 of the Sustainable Development Goals. Since the agricultural sector in India provides employment to half of the total labor force. Apart from this, the government had also set a target of doubling the income of farmers by the year 2022, but the per capita productivity in this area is very low due to which it is associated with the highest area of poverty. However, in a country with a large population like India, the biggest challenge is how to spread the benefits of development to all sections and all sections of the society and this is where the role of appropriate use of technology comes into play. The recently launched 'Digital India Programme' is a good initiative to face this challenge. Therefore, India is poised to become the leader of the G20 group of countries in developing a new economy for inclusive growth and the third largest economy in the world, growing at a very fast pace. Which is a sign of the bright future of India's strong and new economy among the countries with developed economies globally.

## PRODUCTION LINKED INCENTIVE (PLI) SCHEME

### Why in the News?

The central government has granted Rs 4,415 crore in incentives through its flagship Production-Linked Incentive (PLI) schemes for up to eight industries. With an estimated investment of more than Rs 3 lakh crore, 746 applications have been approved thus far in **14 different sectors**. The PLI beneficiaries include over 176 MSMEs in industries like telecom and pharmaceuticals.

### About Production Linked Incentive

- The Production Linked Incentive (PLI) scheme was introduced in **March 2020** to stimulate Indian industry. As part of the Make in India strategy, it provides **five-year incentives** to qualified enterprises based on incremental sales growth. The initiative intends to lessen India's reliance on foreign countries such as China while increasing employment in labor-intensive industries.
- It promotes both global and domestic enterprises to establish or develop production facilities in India. The PLI initiative encourages foreign investment in cutting-edge technology, stimulates exports, and connects India to the global supply chain. To qualify for PLI benefits, interested enterprises must first meet certain eligibility requirements.

### Goals of Production Linked Incentive (PLI) Scheme

- **Complying with WTO obligations** and promoting equitable treatment for both domestic sales and exports are the primary goals of the PLI system.
- It seeks to **increase exports**, draw in foreign capital into core industries and cutting-edge technology, and promote economic expansion.
- The PLI programme provides a number of advantages, such as tax breaks, reduced import and export taxes, accessible property acquisition, and assistance for anchor investors spearheading new ventures.
- The programme is accessible and successful since it promotes investments in labor-intensive industries and sustainable development.

### Performance of Production Linked Incentive Schemes

- **Increase in Exports:**
  - India is anticipated to have shipped mobile handsets worth Rs 90,000 crore in FY23, having doubled the value of such exports in FY22 to Rs 45,000 crore over FY21.
  - In the pharmaceutical sector, 35 active



pharmaceutical ingredients (APIs), which we previously had to import from nations like China, are now produced in India. India's imports have decreased as a result.

- Exports under these schemes have exceeded Rs 3.2 lakh crore, with telecom, electronics, pharmaceutical, and food processing industries making major contributions.
- **Decrease in Imports**
  - The PLI Scheme has resulted in a significant reduction in raw material imports for the pharmaceutical industry. India manufactures unique intermediate materials and bulk pharmaceuticals, such as Penicillin-G. The production of 39 medical devices has begun, including a CT-Scan, Rotational Cobalt Machine, Linear Accelerator (LINAC), C-Arm, MRI etc.
  - Import substitution of 60% has been accomplished in the telecom industry, with PLI beneficiary enterprises selling telecom and networking products in FY 2023-24. With a Compounded Annual Growth Rate (CAGR) of 90.74%, the Drone sector has seen significant investment.
- **Slow Implementation**
  - So far, the PLI plans have not been implemented very quickly. The government's incentive awards for the mobile handset, white goods (ACs and LEDs), and food processing industries together were just Rs 10 crore in 2021–2022, which indicates a slight rise in production.
  - According to DPIIT, this amount increased to Rs 2,874 crore in 2022–2023.
  - Roughly 1.46 per cent of the Rs 1.97 lakh crore incentive spending was paid out in the first two years of the seven-year initiative. Either they haven't adopted the plan yet or they haven't started any significant operations under it.
- **Less Number of Jobs Created:**

There have also been fewer employment generated as a result of the delayed start. Out of the 6 million additional employment expected over the course of seven years, only about 300,000 jobs (or 5% of the total) have been produced through the various PLIs between 2020 and early 2023.

### **Benefits of Production Linked Incentive (PLI) Scheme**

- **Stimulating Manufacturing Competitiveness:** Production Linked Scheme incentivize manufacturers to enhance their production capabilities, adopt advanced technologies, and improve overall efficiency. This increased competitiveness contributes to the growth of the manufacturing sector.
- **Enhancing Productivity:** Companies participating in PLI schemes are encouraged to adopt best practices and improve their production processes. This leads to increased productivity, which is essential for sustained economic growth.
- **Attracting Foreign Direct Investment (FDI):** By offering financial incentives to companies engaged in specific industries, PLI schemes make the domestic market more attractive to foreign investors. This influx of FDI not only boosts the particular sector but also strengthens the overall economy.
- **Technology Adoption and Innovation:** To qualify for incentives, companies often need to invest in and adopt cutting-edge technologies. This promotes innovation, research, and development, driving technological advancement within the targeted sectors.
- **Job Creation:** Increased production and growth in targeted industries lead to the creation of more job opportunities. PLI schemes, by fostering a conducive environment for manufacturing, contribute significantly to reducing unemployment and underemployment.
- **Export Promotion:** PLI schemes frequently have provisions that incentivize companies to focus on export-oriented production. This not only helps in balancing trade deficits but also positions the country as a competitive player in

the global market.

- **Global Competitiveness:** The financial incentives provided by PLI schemes enhance the competitiveness of domestic industries globally. This not only attracts international investment but also allows domestic companies to compete more effectively in the international market.

### Issues Faced by Production Linked Incentive Scheme

- **Administrative Challenges:** The implementation of PLI schemes often involves complex administrative processes. Managing the disbursement of incentives, verifying production targets, and ensuring compliance can be challenging, especially in sectors with numerous small and medium enterprises.
- **Delayed Implementation:** Delays in announcing and implementing PLI schemes can hinder their impact. The time taken for the government to finalize the policy details, set benchmarks, and establish the necessary infrastructure can result in a slow start for the intended beneficiaries.
- **Sectoral Bias:** The focus of PLI schemes on specific sectors may create imbalances, favoring some industries over others. This could lead to neglect of potentially important sectors and hinder a more holistic approach to economic development.
- **Quality vs. Quantity Dilemma:** Some critics argue that Production linked incentive schemes, which often incentivize higher production volumes, may inadvertently compromise product quality. Manufacturers may prioritize quantity to meet targets and receive incentives, potentially overlooking product standards.
- **Global Trade Challenges:** In sectors aiming for export promotion through PLI schemes, global trade challenges such as trade barriers, geopolitical tensions, and fluctuations in demand can impact the effectiveness of the incentives in fostering international competitiveness.
- **Financial Constraints:** Governments may face financial constraints in funding PLI schemes, especially when dealing with large-scale indus-

tries. Ensuring a consistent and substantial budget for incentives is crucial for sustaining the impact of the scheme over time.

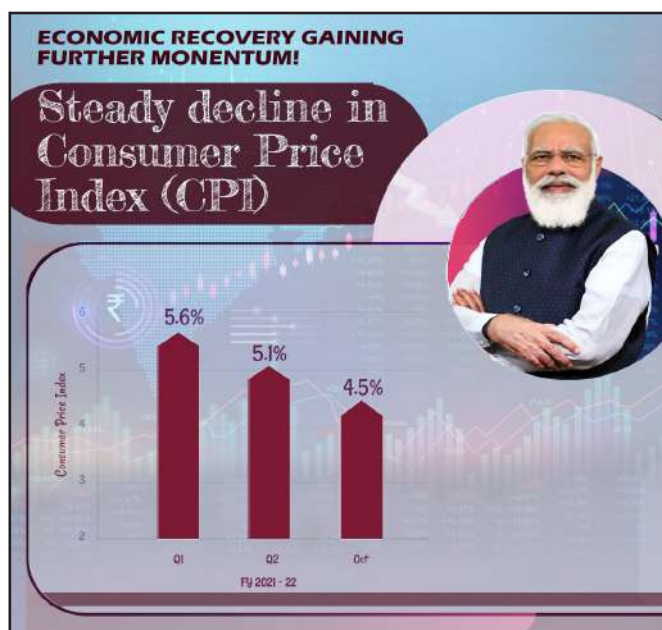
- **Bureaucratic Red Tape:** The bureaucratic processes involved in availing incentives can be cumbersome, discouraging businesses from participating. Streamlining administrative procedures is crucial to ensuring that the benefits of PLI schemes reach the intended recipients efficiently.

### Conclusion:

One important programme to increase domestic manufacturing, lessen reliance on imports, and promote economic growth is the Production Linked Incentive (PLI) scheme. Furthermore, the PLI scheme has enhanced India's export competitiveness and helped the country integrate into the global supply chain. Nevertheless, the programme has encountered difficulties, such as financing limitations, strict eligibility requirements, and implementation delays. It is imperative that these problems are continuously addressed in order to optimize the advantages of the PLI system.

## FOOD INFLATION : A CAUSE FOR CONCERN FOR INDIA

### Why in the News ?



- Inflation, as measured by the 'Consumer Price Index for India' in January 2024, has reached a four-month high in December 2023 and food price gains are rising at a relatively faster pace as inflation in cereals and pulses remains stable. While core retail inflation increased by 14 basis points to 5.69% from the November 2023 level. The price gain, measured by the Consumer Food Price Index, increased by 83 basis points from the previous month to 9.53% in December 2023. The surge in food prices was mainly driven by cereals – the largest component of the 'food and beverages' group – which recorded inflation of 9.93%. However the pace was slightly slower than the 10.3% in November 2023.
- The major food sub-groups including rice, wheat and coarse cereals continued to record month-on-month inflation rates, providing little comfort to the households of ordinary citizens of India.
- What is worrying is that in the case of jowar and millet, November month-on-month inflation rate witnessed the highest sequential price increase of 63 and 106 basis points respectively. These two millets are consumed most and widely in rural areas, especially by those who already face varying levels of precarity.
- Pulses, the main source of protein in India's vegetarian households, have also seen their price rise to a 43-month high of 20.7%. With sowing of pulses in the current Rabi season till January 12, 2024 being around 8% lower compared to the corresponding month/period of 2023, their price outlook in the coming months is not reassuring.
- Year-on-year vegetable price inflation also rose by nearly 10 percentage points from November levels, reaching a five-month high of 27.6%.
- Tomato and onion, their prices have increased by more than 33% and 74% respectively from December 2022 levels. However, given seasonal volatility in vegetable prices, prices of both kitchen staples as well as broader sub-groups witnessed gradual deflation. While month-on-month deflation in overall vegetable prices was 5.3%, prices of potatoes, onions and tomatoes

declined by 5.9%, 16% and 9.4% respectively from November.

- The average retail prices of most of the 23 food items monitored on a daily basis by the Department of Consumer Affairs remained higher than the levels a year ago as on January 14, 2024, underscoring the role of policymakers in controlling food prices. Reflects the challenge ahead in the area of food inflation.
- Households of ordinary citizens of India are likely to spend a larger share of their income on food as the cost of food continues to rise. There is a real and universal risk in India that the impact of already weak consumption could derail the broader growth momentum in the economy.
- The growing food crises in West Asia have created a new level of uncertainty over global trade and energy costs, posing a worrying aspect/question to policy makers. Therefore, the government needs to address the concerns of both producers and consumers alike. It is necessary to pay attention to the form.

#### **Current Situation of Food Price Inflation and Deflation :**

##### **Inflation in Pulses and Cereals :**

- The latest Consumer Price Index for India data shows that food inflation led by prices of two commodities: cereals (11.9%) and pulses (13%) increased sharply in July and August respectively.
- The annual retail price growth of vegetables was even higher, at 37.4% and 26.1% respectively.
- According to this data, the best indicator was tomatoes, whose retail inflation during this period stood at 202.1% and 180.3% respectively.

##### **Deflation In Essential Commodities And The Strategy Of Governments :**

- For political reasons, most governments naturally privilege consumers over producers. In the present scenario the government should give equal priority to both production and produc-

ers especially of the two agricultural/food commodities, apart from other problems. The areas given priority by the governments are –

### Need for Government Priority in the Field of Vegetable Oil Production in India:

- Soybean harvesting and marketing had begun in October, but the oilseed is already trading below the government's Minimum Support Price (MSP).
- As oil and meal, there has been a recent decline in demand for soybeans.
- One of the main reasons for the slowdown in Indian markets is India's import of edible oil from other countries. India's imports of vegetable oils are projected to reach a high of 17 million tonnes (mt) in 2022-23.

### Need for Government Priority in the Field of Milk Production in India:

- There has been a decline in the purchase of milk powder, butter or ghee in recent times in India. There is a decline in the purchase of milk products even after festivals (Dussehra-Diwali), usually in winter when milk production is at its peak.

- The alleged increase in adulteration of vegetable fat in the sale of adulterated ghee has also increased the problems of this industry and made it a matter of concern. The fall in prices of imported oils, especially palm oils, has further increased the adulteration of butter and ghee with cheap fats, which has begun to raise health concerns for consumers in India.

### Government Support to Wheat and Rice as Essential Commodities :

- In India, excess supply in the absence of effective distribution by government mechanisms or through the Public Distribution System (PDS) may lead to decline in market prices.

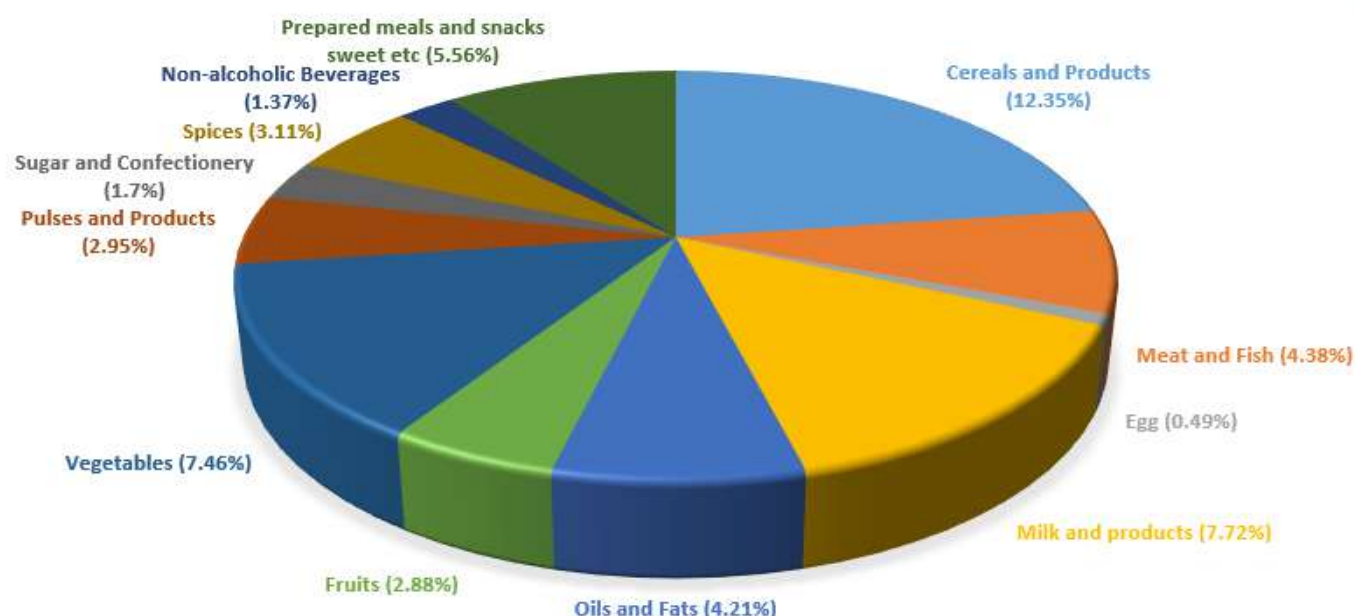
### Higher Production of a Particular Crop by Farmers in India :

- Generally, farmers in India often challenge the minimum support price (MSP) set by the government by increasing production of MSP-supported crops like wheat and rice. This overproduction could lead to a glut of these crops in the market, pushing their prices below the MSP.

### Inadequate Procurement and Distribution at the Government Level :

- In India, the government sets the Minimum

**CONSUMER FOOD PRICE INDEX (CFPI)**





Support Price (MSP) and purchases crops from farmers through its own mechanisms, however the procurement infrastructure and distribution system may be inefficient, leading to delays in procurement and inadequate distribution of grains to consumers.

### **Consumer Food Price Inflation (CFPI) :**

- A specific measure of inflation is Consumer Food Price Inflation (CFPI), which focuses specifically on price changes in consumer goods and services including food items.
- It measures the rate at which the prices of food products consumed by a typical household are increasing or showing signs of increasing over time.
- CFPI is a sub-component of the broader Consumer Price Index (CPI), where the Reserve Bank of India (RBI) uses the CPI-Composite (CPI-C) to calculate the rate.
- The CFPI monitors price changes of specific food items that are commonly consumed by households. For example – grains, vegetables, fruits, dairy products, meat and other foods.

### **Consumer Price Index (CPI) :**

- Retail inflation, also known as CPI inflation, defines the rate at which the prices of goods and services purchased by consumers for personal use rise over time.
- It measures changes in the costs of purchasing commonly used household goods and services, including food, clothing, housing, transportation, and medical care.

Data for the first three of these are compiled by the Labor Bureau of the Ministry of Labor and Employment, while the fourth type of CPI, CPI for Urban Non-Manual Employees (UNME – CPI), is compiled by the Department of Statistics. It is compiled by the National Statistical Office (NSO) under the Ministry of Statistics and Program Implementation.

### **Reasons for Food Price Inflation :**

#### **Situation of Imbalance in Demand and Supply**

- When there is an imbalance between the demand and supply of food items in any country or its economy, then the prices of food items start increasing.
- Factors such as natural disasters or extreme weather events, low crop yields or pest infestation of crops by insects can reduce the supply of agricultural products, thereby increasing their prices.
- Sometimes, due to increase in demand, increase in population or change in consumer's food preferences, if the supply of food items is not maintained continuously, then in such a situation the prices may also increase.

### **Increase in Cost of Agricultural Production for Farmers :**

- Sometimes food prices may also increase due to increase in agricultural production costs for farmers. It also includes expenses like increase in price of fuel, fertilizers and labor costs.

### **Increase in Energy Prices :**

- Rising costs of energy used in agricultural operations, or sometimes especially fuel prices such as diesel or petrol, are a significant factor in the food supply chain. Increases in diesel, gasoline or oil prices may increase transportation costs to get food products from farms to stores, resulting in higher food prices for consumers.

### **Currency Exchange Rate :**

- Sometimes fluctuations in currency exchange rates can affect food prices, especially for countries that rely heavily on imported foods. A weak domestic currency can make imported food or foodstuffs more expensive, leading to an increase in inflation.

### **Business Policies:**

- Trade policies and tariffs set at the national or international levels can affect the prices of imported and domestically produced food. Restrictions on the import of any food item may also limit the variety of food products available and potentially increase prices.

## Government Intervention in the Form of Price Controls or Regulations :

- Government intervention in the form of subsidies, price controls or regulations given to citizens in the case of food items can affect the prices of food items. On one hand, subsidies given by governments can reduce the cost/price of production of food items, on the other hand, price controls by governments can limit price rise.

## Long-Term Changes in Climate Patterns :

- Long-term changes in climate patterns may impact agricultural products or food production. More severe and extreme weather events, such as drought or floods, can damage crops and reduce agricultural yields, which can also increase food prices.

## Need for Investment in Agricultural Research and Technology :

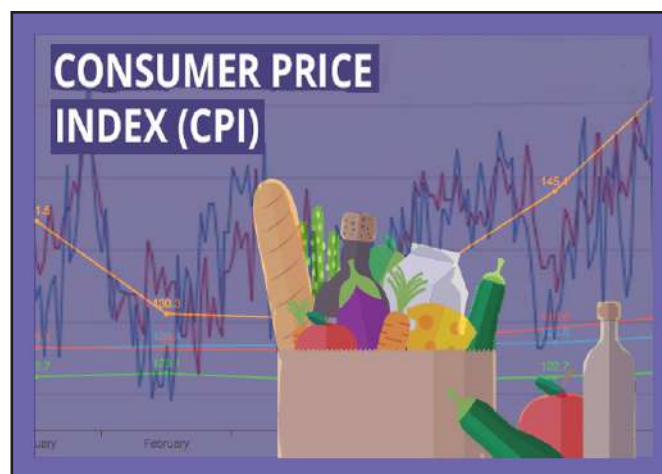
- In the agricultural sector, there is a need to invest in agricultural research and technology to increase the yield potential of crops and productivity of livestock, reduce production costs and promote sustainable agricultural practices.

## Need to Strengthen Food Supply Chains :

- There is a pressing need to invest in transportation and storage infrastructure to reduce food spoilage and wastage.
- There is an urgent need to improve the distribution network to ensure that food reaches the intended consumers efficiently and prevent wastage of food items.

## To Promote Coordination Between International Trade and Markets :

- There is an urgent need to remove trade barriers and related tariffs on any essential food items.
- There is a need to greatly facilitate international trade to ensure continuous and stable supply of food items or food products, as well as to promote synergy between international trade and markets to ensure uninterrupted supply of food items or food products. There is a great need to give.



## To Reduce Hoarding or Black Marketing or Monopoly Power and to Promote Mutual Competition :

- It is extremely important to implement anti-monopoly law in the market to prevent the tendency of big agri-business establishments to establish monopoly rule over the market, hoarding or black marketing in the market and price manipulation.
- There is an urgent need to encourage competition in food sectors such as food items or food products to keep food prices competitive.
- Global natural and political events: Global events such as geopolitical conflicts, pandemics and trade disruptions can disrupt food supply chains and cause food prices to rise. For example – the COVID-19 pandemic disrupted food production and distribution in many parts of the world. Learning lessons from this pandemic, there is an urgent need to pave the way in this direction so that food supply chains are not disrupted in the future.

## SEBI'S SHIELDING/PROTECTION/DEFENSE

### Why in the News?

The bench of the Supreme Court comprising Chief Justice DY Chandrachud, Justice JB Pardiwala and Justice Manoj Mishra, while delivering the judgment, said – “The Supreme Court of India has the right to enter into the regulatory framework of the

Securities and Exchange Board of India (SEBI). Power is limited. Bottom line: The Supreme Court of India has expressed no confidence in the investigation process being conducted by SEBI and there is no basis to transfer the investigation process of this case from the investigation agency constituted by SEBI to the SIT. The Supreme Court should have put pressure on SEBI to do more, rather than reviewing its policy actions. The Court is certainly aware of past instances where it has found that SEBI was not showing promptness in enforcement, the panel of experts appointed in this case has also marked this aspect. After all, 'justice must not only be done, but must also be seen to be done.'

### What was the Matter?

Recently a report by Hindenburg Research regarding the shares of Adani Group was released. In this report, Adani Group was accused of manipulating the value of shares, after which a huge fall in the value of shares of listed companies of Adani Group was also recorded. In the Adani-Hindenburg case, the Supreme Court, while giving its decision on 3 January 2024, has given SEBI 3 more months to investigate the remaining 2 cases. At the same time, they have refused to hand over the investigation of the case from SEBI to SIT.

### What has the Investigation Committee Constituted by Sebi Found so far in the Investigation?

On March 2, 2023, the Supreme Court constituted a committee in this matter and SEBI was also given 2 months time to investigate. SEBI was to submit its report by May 2, 2023, but during the hearing, SEBI had asked for an extension of 6 months for the investigation. The Supreme Court bench had extended it till August 2023, meaning SEBI was given a total of 5 months to submit its investigation report. On August 14, 2023, SEBI sought additional time of 15 days from the Supreme Court to complete its investigation and submit the report and on August 25, 2023, SEBI filed the status report of its investigation in the Supreme Court, stating that 22 The investigation of the cases has been completed and the investigation of 2 cases is still incomplete. On November 24, 2023, the Supreme Court, while reserving its decision in this matter, had accepted that there is no need to accept the Hindenburg Re-

port as correct in India right now.

### Securities And Exchange Board of India (SEBI):

- The Securities and Exchange Board of India (SEBI) was established on April 12, 1992 in accordance with the provisions of the Securities and Exchange Board of India Act, 1992.

### Preamble of SEBI:

The basic functions of SEBI are mentioned in the Preamble of the Securities and Exchange Board of India as follows –

- To protect the interests of investors investing in securities.
- To promote and regulate the development of the securities market.
- To make provision for matters relating to or incidental to the securities market.

### What is SEBI?

The full name of SEBI is Securities and Exchange Board of India. It is a statutory body/institution (a non-constitutional body established by the Parliament) which regulates the functioning of the Indian capital market and also regulates transactions of shares in the stock market and mutual funds. Also controls the issue. Its major function is to protect the interests of investors and develop the Indian capital markets by enacting various rules and regulations from time to time. India's stock market runs on the guidelines of this institution.

SEBI is an autonomous organization that works under the administration of the Union Finance Ministry.



**Historical Background of SEBI:**

- Before the establishment of SEBI in India, the Indian capital market was governed by a regulatory authority called the Controller of Capital Issues. Which was given the authority under the Capital Issues (Control) Act, 1947 to resolve and settle all the issues related to the stock market in India. Securities and Exchange Board of India was established on 12 April 1988 and the Government of India gave it statutory recognition on 30 January 1992 under the SEBI Act 1992 through an ordinance. The headquarters of SEBI is located in Mumbai and it also has some regional offices in New Delhi, Kolkata, Bengaluru, Chennai, Kochi, Ahmedabad, Hyderabad, Shimla, Jaipur and Lucknow.

**Work of SEBI:**

- SEBI being a statutory body in India, it has the powers to perform many important functions. A list of such powers as described/contained in the regulatory body's SEBI 1992 Act is given. The core function of SEBI makes it an important body/institution in India as a major securities issuer, protector of the interests of investors and traders and a financial intermediation body. In Section 11 of the Securities and Exchange Board of India Act (Act), the functions of SEBI are mainly divided on three grounds. Which are of the following types –
- Protective Function
- Regulatory Functions
- **Developmental Functions**

**Protective Function:**

- The major objective of the protective function of the Securities and Exchange Board of India is primarily to monitor and monitor the functioning of business in the financial markets. Which includes the following work–
- The Securities and Exchange Board of India investigates stock price manipulation in India.
- It prevents and regulates stock insider trading in India from outside India.

- The Securities and Exchange Board of India, as part of its regulatory functions, promotes fair share trading in India.
- It makes investors aware of the risks of the stock market by providing them awareness about the risks involved in investing in the stock market in India.
- As part of its protective function, the Securities and Exchange Board of India prevents and regulates fraudulent and improper securities transactions in the stock market in India.

**Regulatory Functions:**

- The Securities and Exchange Board of India, as part of its regulatory functions, protects the interests of SEBI investors and other financial participants investing in the stock market. Which includes the following work –
- Securities and Exchange Board of India provides guidelines to financial intermediaries and corporate companies or corporate houses in India to function properly and also formulates code of conduct for financial transactions. One of the major functions of the Securities and Exchange Board of India is to scrutinize securities transactions in India and also conduct securities audits.
- The Securities and Exchange Board of India provides a platform or arrangement of platforms to financial intermediaries and corporate companies or corporate houses in India and investors investing in the stock market so that there are portfolio managers, bankers, stock-brokers, investment-advisers, Merchant bankers, registrars, share-transfer-agents and others could carry out transactions or investments or regulation together.
- Its regulatory function also includes regulating substantial acquisition of shares and takeovers of companies in a given time frame.

**Developmental Functions:**

One of the major functions of the Securities and Exchange Board of India also includes developmental work in India. Following are some of the main points of this developmental work –



- One of the main functions of the Securities and Exchange Board of India is to publish useful information for all and also to provide training to the brokers associated with the stock market and to make those brokers aware of the risks of the stock market.
- Its developmental work also includes educating, training and making investors aware about investment and the advantages and disadvantages of investment.
- Another important function of the Securities and Exchange Board of India is to conduct market research and create awareness among the key stakeholders by publishing latest and useful information to the stock market participants and all others who are connected with the stock market.
- Its developmental functions also include promoting transactions done through proper channels.
- Another important function of this is to encourage stakeholders and companies and self-regulatory organizations associated with the stock market.
- One of the developmental functions of the Securities and Exchange Board of India is also to encourage buying and selling of mutual funds through brokers or directly.
- One of its developmental functions is to promote fair transactions in the stock market.
- It is SEBI's job to take suo motu cognizance of frauds committed against investors in the stock market world and take appropriate action on them.



### Nature of SEBI:

Securities and Exchange Board of India (SEBI) in its structural form is in the form of a corporate structure consisting of various departments which are managed by the Heads of Department of that department. It is an organization which is managed by its members only. SEBI consists of around 20 departments covering legal affairs, corporate finance, debt and hybrid securities, enforcement, economic and policy analysis, commodity derivatives, market regulation and many other departments. SEBI has a hierarchical structure in a hierarchical manner. Which includes these key members:

- The SEBI Board consists of a Chairman and several other full-time and part-time members.
- SEBI also appoints various committees from time to time to investigate the important issues of the time.
- SEBI primarily consists of a Chairman who is nominated by the Central Government of India.
- Two members are appointed to SEBI by the Union Finance Ministry of India.
- A member is also appointed to SEBI by the Reserve Bank of India.
- Five members are also nominated in SEBI by the Central Government of India.

### Jurisdiction and Powers Conferred by SEBI:

- Since Securities and Exchange Board of India (SEBI) is a statutory body in India, it has the powers to perform many important functions and its jurisdiction is also wide. A list of such powers as described/contained in the regulatory body's SEBI 1992 Act is given. The core function of SEBI makes it an important body/institution in India as a major securities issuer, protector of the interests of investors and traders and a financial intermediation body. SEBI has many powers under the Act 1992 so that SEBI can operate the Indian financial market smoothly and powerfully. The Securities and Exchange Board of India (SEBI) is primarily mandated to prevent any kind of fraud in the securities market and to prevent unethical behavior in the financial mar-

ket. SEBI has the same powers as a civil court. Apart from this, if a person does not agree with the decision or order of the 'Securities Appellate Tribunal' (SAT) then he can appeal to the Supreme Court. Therefore, in India, the Securities and Exchange Board of India (SEBI) has the following powers, which it uses from time to time –

- **Quasi-Judicial** – Under the quasi-judicial powers given to the Securities and Exchange Board of India (SEBI), SEBI has the power to take decisions if a company, broker or investor commits any fraudulent or unethical behavior in the securities market. These powers facilitate maintaining transparency, accountability and fairness in the securities market.
- **Quasi-Executive** – If any individual, corporate or institution violates the rules, guidelines and decisions of SEBI, then SEBI reserves the right to take legal action against it using its quasi-executive powers. If any violation of any rule or regulation is found in it, SEBI is authorized to inspect the accounts and other documents of that company or securities brokers and issue the same to the stock exchange. SEBI also has the power to grant rejection in such a situation.
- The Chairman of SEBI also has the power to order "Search and Seizure operations". The Securities and Exchange Board of India (SEBI) may also seek any information such as telephone call data records or contract documents from any individual, corporate, entities in connection with any securities transaction.
- **Quasi – Legislative** – Securities and Exchange Board of India (SEBI) has the authority to promulgate rules and regulations to protect the interests of stock market investors in India. Some of its rules include insider trading regulations, listing obligations and disclosure requirements. It prevents and regulates stock insider trading in India from outside India.

### Conclusion: Solution to the Problem:

The main objective of the Securities and Exchange Board of India (SEBI) is to keep the Indian financial and stock markets fair and safe. Since the estab-

lishment of SEBI, Securities and Exchange Board of India (SEBI) in India has carried out many reforms in the stock market of India through new laws, rules and its guidelines. SEBI keeps incorporating new rules from time to time keeping in mind the needs of the stock market and investors. It works to continuously improve and bring transparency in the stock market so that the Indian financial market remains safe and strong for the investors and all the stakeholders associated with the stock market. At present, SEBI has completely "freed" the stock market from cashless transactions or withdrawals and has now "converted it to electronic transactions". Due to which now any person can invest in the stock market sitting at home through the internet on his own without the help of any broker. Along with this, the Securities and Exchange Board of India (SEBI) strengthens the Indian securities market by strengthening the regulatory system of the stock market, which is now attracting more investors towards the trading platform of the stock market. It prevents and regulates stock insider trading in India from outside India. Ultimately, the Securities and Exchange Board of India (SEBI) is a powerful body in India that reduces the risks of fraud to investors investing in the securities market and stock market.

## INDIA'S FIRST CENTER OF EXCELLENCE FOR GREEN PORTS AND SHIPPING

### Why in the News ?

Union Minister of Ports, Shipping & Waterways and AYUSH Shri Sarbananda Sonowal announced India's first National Center of Excellence for Green Ports and Shipping (NCoEGPS). The objective of the Center is to develop a regulatory framework and road map for adoption of alternative technologies to promote carbon neutrality and circular economy (CE) in the sector of Ministry of Ports, Shipping and Waterways in India. India aspires to increase the share of renewable energy in the total power demand in all its major ports, which is currently less than 10 percent, to 60 percent, to be met through power generated by solar and wind energy. India's first National Center of Excellence for Green Port & Shipping (NCOEGPS) has been launched by the Government of India at the recent "INMARCO

2022" held in Mumbai. .

### Objective : –

To promote carbon neutrality and financial economy in India and to make ports and shipping more environment friendly.

INMARCO is a quadrennial international maritime conference and exhibition, hosted by the Institute of Marine Engineers (Government of India). That is, INMARCO organizes this program every four years by presenting its report on developing a road map for green ports and adoption of alternative technologies for shipping.

### India's First Center of Excellence for Green Ports and Shipping (NCOEGPS) :

#### Introduction:

- It is a flagship initiative of the Ministry of Ports, Shipping and Waterways (MOPSW) as part of the Sagarmala Program of the Ministry of Ports, Shipping and Waterways towards providing green solutions in the Ministry of Shipping and Waterways. Will work under the framework of.
- The information and implementing partner for this project is The Energy and Resources Institute (TERI).

#### Aim of the Center of Excellence:

- The objective of the Center is to develop a regulatory framework for green shipping and a road map for adoption of alternative technologies to promote carbon neutrality and circular economy (CE) in the shipping sector in India.
- Green shipping is the practice of using less resources and energy to transport people and goods by ship to protect the global environment from environmental pollutants and greenhouse gases (GHGs) produced by ships.
- India aims to increase the share of renewable energy in the total power demand of each of its major ships to 60% from the current share of less than 10%.
- It will be implemented with the help of solar en-

ergy and wind energy.

- Center of Excellence is a team, a shared facility or a unit that provides the best leadership, practice, research, collaboration and training in a single location for a particular area.
- It promotes innovation.



#### Objectives of INMARCO:

- Its main objective is to strengthen 'Make in India' in the field of ports, shipping and waterways and engineering by developing cutting-edge technologies and application products in this sector under 'Make in India Scheme'.
- The aim is to provide the most appropriate solutions to various challenges in these areas by enabling innovations.
- One of its main objectives is to create a competent work force for the industry equipped with state-of-the-art theoretical and practical knowledge by creating a pool of capable manpower.
- Its main objective is to identify and analyze the complex problems of this sector and provide assistance in solving the issues, in order to provide self-reliance to India in technology development through scientific study and providing short-term solutions through the technical branch.

#### Importance of INMARCO:

- INMARCO Mission is a major effort towards realizing the Lifestyle for the Environment (LiFE) movement as it aims to transform ports and make the shipping sector eco-friendly.



- India's first National Center of Excellence for Green Ports and Shipping will work with all ports, shipping and maritime states of India to understand their local problems and offer solutions through a scientific approach.

#### **Related Initiatives Launched by Government of India:**

- The ports also aim to reduce carbon emissions per tonne of cargo by 30% by 2030.
- The Maritime Vision Document 2030 is a 10-year blueprint on India's vision of a sustainable maritime sector and vibrant blue economy.
- India has been selected as the first country under the Green Voyage 2050 project of the International Maritime Organization (IMO) to conduct a pilot project related to green shipping.



#### **Green Voyage 2050 Project:**

- The Green Voyage 2050 project is a project launched in May 2019 between the Government of Norway and the International Maritime Organization (IMO), which aims to transform the shipping industry into a low-carbon emitting future.
- The global partnership will help Small Island Developing States (SIDS) and Least Developed Countries (Least Developed Countries) meet their commitments to climate change and energy efficiency targets relevant to international shipping by supporting the inaugural IMO Greenhouse Gas (GHG) Strategy. Developed Countries-LDC is supporting the developing countries.

- One of the important objectives of Green Voyage 2050 is to encourage global efforts to demonstrate and test technology solutions.

#### **Report Presented by the Standing Committee on National Inland Waterways:**

- Inland waterways are a navigable river and canal system. The Inland Waterways Authority of India (IWAI) regulates and develops national waterways for inland shipping and navigation.

#### **Major Findings and Suggestions of the Committee Include the Following:**

##### **Operation of National Waterways:**

- At present there are a total of 111 notified national waterways in India, out of which 23 have been made operational.
- Due to financial and staff constraints, the Ministry of Ports, Shipping and Waterways has said that 63 national waterways are currently not being developed by the ministry.
- A committee constituted by the Ministry of Ports, Shipping and Waterways of India has suggested that these 63 waterways should not be developed at present as it is impractical.

##### **Intermodal Connectivity for Transportation Of Cargo:**

- Under intermodal connectivity for transportation of cargo, the committee has said that connectivity of waterways with major ports, railways and roads will reduce the burden of transportation of cargo and will also reduce the cost of logistics.
- The Committee has suggested that in case of newly notified waterways, connectivity with rail, road and ports should be dealt with at the project completion stage itself.

##### **Low Share of Waterways:**

- The average share of waterways in freight traffic in India is about 2%, compared to 4% in the USA, 14% in China, 48% in Vietnam and 49% in



the Netherlands.

- India aims to increase the share of this sector to 5% by the year 2030.
- The Committee has recommended that the Ministry prepare an action plan on an urgent basis to harness and develop the potential of waterways as a sustainable transit option and tourism service.

#### Important Facts : –

- The center will utilize a number of technological measures to support the shipping and shipping sector and address various problems faced by the industry through scientific research.
- It will also provide valuable education, applied research and technology transfer in maritime transportation at local, regional, national and international levels.

#### This center will focus on 5 broad areas-

- Policy, Regulatory and Research,
- Human Resource Development,
- Network- key partners and strategic partners,
- Exploration- scope of work, results, projects and resources,
- Attached – Scope of work, results, projects and resources.

### GM CROPS



#### Why in the News?

The Indian government recently persuaded the Supreme Court that genetically modified (GM) crops like mustard will reduce the cost of quality edible oil for the average person while also benefiting national interests by reducing foreign dependency. The **Genetic Engineering Appraisal Committee (GEAC)** has granted permission for the environmental release of **Dhara Mustard Hybrid-11 (DMH-11)**, a genetically modified mustard strain.

#### About GM Crops

- Genetically modified (GM) crops are generated from plants whose genes have been purposefully transformed, typically by introducing genetic material from another organism in order to give them new traits such as higher yield, herbicide tolerance, disease or drought resistance, or nutritional value.
- The efficacy of the GM crop is evaluated under rigorous laboratory and field conditions.
- Previously, India permitted the commercial cultivation of just one GM crop, Bt cotton, but the **Genetic Engineering Appraisal Committee (GEAC)** has endorsed GM Mustard for commercial production.

#### Benefits of GM Crops

##### Increased Agricultural Productivity:

GM crops are frequently bred to withstand pests and illnesses, decreasing the need for chemical pesticides. This can lead to **higher yields** and **lower input burden**. Crop resilience improves adaptation to adverse environmental situations, increasing overall agricultural yield.

##### Nutritional Improvement (Biofortification):

Genetic modification allows for the improvement of nutritional content in crops via **biofortification**. **Golden Rice**, for example, produces beta-carotene, addressing vitamin A insufficiency in places where rice is a mainstay.

##### Environmental Sustainability:

Reducing the use of chemical pesticides and herbicides can improve environmental sustainability. Some GM crops are designed to withstand specific environmental challenges, such as drought or salinity, thereby encouraging sustainable farming techniques.

##### Global Food Security:

GM crops have the potential to ease food shortages by raising crop yields and **strengthening agriculture's resilience** to changing climate conditions. **Improved pest and disease resistance** leads to a

more constant and reliable food supply.

### Economic Benefits For Farmers:

Farmers benefit from **higher agricultural yields** and **lower pesticide costs**. Genetically modified crops may use fewer resources, such as water and land, hence increasing agricultural economic efficiency.

### Concerns About Gm Crops:

#### Environmental Risks:

The possibility of unexpected consequences, such as the formation of superweeds or adverse effects on non-target organisms, raises worries about the environmental viability of GM crops. The long-term implications of genetic manipulation on ecosystems and biodiversity are currently poorly understood.

#### Health Implications:

Some critics are concerned about the potential health dangers associated with the consumption of GM crops. This includes allergens, toxicity, and the spread of antibiotic-resistant genes. Rigorous testing and study are required to assure that GM crops are safe for human consumption.

#### Corporate Rule And Monoculture:

The concentration of genetically modified crop development in a few large biotechnology companies raises worries about corporate control of global agriculture and seed supply. Monoculture practices linked with GM crops may reduce crop diversity, making agricultural systems more susceptible to pests and diseases.

#### Ethical Challenges:

The ethical consequences of changing the genetic makeup of species, including plants, are debatable.

Questions of genetic resource ownership, farmer exploitation, and socioeconomic impact must be addressed.

#### Regulatory Challenges:

Creating appropriate regulatory frameworks for the safe creation, testing, and commercialization of GM crops is a challenging task. Diverse regulatory procedures around the world contribute to uncertainty

and varying levels of public approval.

### Carcinogen Exposure Danger:

According to studies, crops that are resistant to commercial pesticides significantly increase the chance of developing cancer in rats. Genetically engineered crops may also offer major risks to human health.

### What Is Gm Mustard

- Mustard hybridization is challenging because the flowers contain both female (pistil) and male (stamen) reproductive parts, making the plant self-pollinating. Thus, producing hybrids for mustard has limitations.
  - **Dhara Mustard Hybrid (DMH-11)** was developed by a team of scientists from Delhi University, directed by former vice-chancellor and genetics professor Deepak Pental, as part of a government-funded study.
  - To generate DMH-11, scientists crossed a common Indian mustard variety called '**Varuna**' (the barnase line) with an East European '**Early Heera-2**' mutant (barstar). The new hybrid mustard DMH-11 has been produced with two alien genes obtained from a soil bacteria called **Bacillus amyloliquefaciens**.
  - The **first gene ('barnase')** encodes a protein that reduces pollen production and makes the plant into which it is integrated male-sterile. This plant is then crossed with a fertile parental line with the second '**barstar**' gene, which inhibits the action of the barnase gene.
  - The barstar gene in the second fertile line results in F1 progeny that is both high-yielding and capable of producing seed/grain.
- ### About Genetic Engineering Appraisal Committee (Geac)
- The GEAC is in charge of reviewing proposals for the release of genetically modified organisms and goods into the environment.
  - It works under the Union Ministry of Environment, Forests, and Climate Change.

# Understanding DMH-II

## Dhara Mustard Hybrid-II (DMH-II)

DMH-II works on the principle of removing male fertility in one parent and restoring it in the offspring

### WHO DEVELOPED IT?

Scientist, ex-DU vice-chancellor Deepak Pental developed it in 2007. It had been stuck in the regulatory process after initial approval in 2017

**ITS ADVANTAGES:** It would bring "better yields, lower costs for farmers", Pental said. It allows for hybridisation of a plant that otherwise self-pollinates (making hybrids next to impossible), leading to high-output hybrids

**AND CONCERNS:** technologies are fiercely resisted, amid fears they may compromise food security, lead to seed monopolies, biosafety hazards Coalition for a GM-free India called the clearance "shocking", alleging that the "regulator colluded with the developer"



- It functions in accordance with the Environment Protection Act of 1986 and the Rules of 1989.
- It applies to the large-scale usage of harmful microbes and recombinants in research and industrial production from an environmental standpoint.

## LENTIL PRODUCTION IN INDIA



### Why in the News?

According to the Ministry of Consumer Affairs, increased acreage would cause India to overtake other countries as the world's leading producer of lentils (masoor) in the 2023–24 crop year. On larger acreage, the nation's lentil production is predicted to reach an all-time high of 1.6 million tonnes in the 2023–24 rabi season. Based on official data, the nation produced 1.56 million tonnes of lentils during the 2022–2023 crop year.

### About Lentils

- Lentil is a bushy perennial herbaceous plant belonging to the legume family
- These are edible legumes distinguished by their flat, disc-shaped, lens-shaped seeds.
- Usually small in stature, lentil plants produce blooms that pollinate themselves.
- Lentil grains serve as excellent sources of calories, carbs, protein, fat, fibres, phosphorus, iron, zinc, carotene, vitamins, and antioxidants.
- It is an important food source for humans, mainly eaten as dry seeds.
- It is primarily eaten as "Dal" in India, which involves removing the outer peel and splitting the cotyledons.
- Another name for lentils is Masur and Malka (bold seeded).

### Climatic conditions needed for Lentils



- Lentil needs a cool environment. It is quite resilient and can withstand a lot of cold and a harsh winter.
- When it is growing vegetatively, it needs cold temperatures, and when it reaches maturity, it needs warm temperatures.
- **Temperature:** 18 to 30 degrees Celsius is the ideal range for growth. Its cultivation range reaches as high as 3,500 metres in the highlands to the northwest.
- **Soil:** Neutral-reaction, well-drained loam soils are ideal for lentil farming. It is not suitable to cultivate lentils in acidic soils. The ideal pH for soil would be about 7. Flooding and soggy weather are intolerable to lentils.

#### Health Benefits of Lentils:

- **Rich in Nutrients:** Lentils are a nutritional powerhouse, containing high levels of protein, fiber, vitamins, and minerals. They provide essential nutrients like folate, iron, potassium, and manganese.
- **Heart Health:** The high fiber content in lentils contributes to lower cholesterol levels, reducing the risk of heart disease. Lentils also contain potassium, which supports healthy blood pressure.
- **Digestive Health:** Lentils are an excellent source of dietary fiber, promoting digestive health and preventing constipation. The fiber content helps maintain a healthy gut microbiota.
- **Blood Sugar Regulation:** Lentils have a low glycemic index, which means they release glucose slowly, preventing spikes in blood sugar levels. This makes them a suitable food for individuals with diabetes.
- **Weight Management:** The combination of fiber and protein in lentils helps increase satiety, making people feel fuller for longer periods. This assists in weight management and prevents oneself from overeating.
- **Source of Plant-Based Protein:** Lentils are a valuable source of protein, especially for individuals following vegetarian or vegan diets. They offer a protein-rich alternative to animal products.
- **Antioxidant Properties:** Lentils contain antioxidants that help neutralize harmful free radicals in the body, potentially reducing the risk of chronic diseases and inflammation.

#### Benefits of Growing Lentils for farmers and Environment:

- **Crop Rotation and Soil Health:** Lentils are nitrogen-fixing crops, enriching the soil by converting atmospheric nitrogen into a form that plants can use. This makes lentils an excellent rotational crop, improving soil fertility.
- **Drought Tolerance:** Lentils are relatively drought-tolerant compared to some other crops. They require less water, making them suitable for cultivation in regions with limited water availability.
- **Short Growth Cycle:** Lentils typically have a shorter growth cycle compared to other crops, allowing farmers to cultivate multiple crops in a single growing season. This versatility can contribute to increased yields and income for farmers.
- **Income Diversification:** Lentils offer farmers an opportunity to diversify their crops and income streams. The demand for lentils in the global market provides a potential source of revenue for farmers.
- **Reduced Need for Fertilizers:** As legumes, lentils have the ability to fix nitrogen in the soil. This reduces the dependence on synthetic fertilizers, resulting in cost savings for farmers and promoting sustainable agriculture.
- **Adaptability to Various Climates:** Lentils can grow in various climates, from cool temperate to warm conditions. This adaptability makes lentils a versatile crop suitable for cultivation in different regions around the world.
- **Sustainable Agriculture:** Lentils can be part of a sustainable agricultural system, promoting practices that are environmentally friendly and socially responsible. Their ability to improve soil health, reduce reliance on chemical inputs, and adapt to various climates aligns with sustainable agriculture principles.



### Lentils growing region

- It is widely grown throughout Europe, Asia, and North Africa.
- The Food and Agriculture Organisation (FAO) reports that Canada, India, Australia, Turkey, and Russia were the leading lentil producers worldwide in 2022.
- India, the world's second-largest producer of lentils, has up until now relied on imports to cover its domestic needs, primarily from Turkey, Australia, Canada, and Russia.
- West Bengal, Jharkhand, Uttar Pradesh, Madhya Pradesh, Bihar, and Chhattisgarh are the primary states where it is grown.
- Considered as a lentil bowl, Bundelkhand region, which is part of Uttar Pradesh and Madhya Pradesh provides around 25% of the nation's lentil crop.

### Initiatives by the Indian Government to Increase Pulse Production

- Procurement of the pulses by offering "Minimum Support Prices (**MSP**)" to the farmers via National Agricultural Cooperative Marketing Federation of India (**NAFED**) as well as lately through Small Farmers Agri Consortium (**SFAC**).
- **National Food Security Mission – Pulses (NFSM-P)**: Launched under the National Food Security Mission, this scheme aims to enhance the production of pulses by promoting the adoption of improved technologies, high-yielding varieties, and better agronomic practices. It also focuses on increasing the area under pulses cultivation.
- **Research and Development**: The Indian Council of Agricultural Research (**ICAR**) is a key player in developing new varieties and doing research that can improve the productivity potential of pulse crops. ICAR produces production packages and high-yielding cultivars tailored to specific locations.

### State of Pulse production in India

- India is the world's biggest **importer** (14%), **user** (27% of global consumption), and **producer**

(25% of global output) of pulses.

- While pulses are grown in both the **Rabi** and **Kharif** seasons, over 60% of the overall production comes from Rabi pulses.
- Pulses make up about 20% of the land planted to grains and make up between 7 and 10% of the nation's overall grain production.
- The most common pulse, accounting for around 40% of the overall production, is gramme. It is followed in order of importance by Tur/Arhar (15–20%), Urad/Black Matpe, and Moong (8–10%).
- Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, and Uttar Pradesh are the top five states that produce pulses.

### UNDERSTANDING MINIMUM SUPPORT PRICE (MSP) IN INDIAN AGRICULTURE



### Why in the News?

The Minimum Support Prices (MSPs) for Copra for the 2024 season have been approved by the Cabinet Committee on Economic Affairs, chaired by the Prime Minister. This aligns with the government's pledge to set MSPs at a minimum of 1.5 times the all-India weighted cost of production, as declared in the Union Budget of 2018-19.

### Definition and Purpose:

- Minimum Support Price (MSP) is a government-initiated market intervention in India designed to shield agricultural producers from significant drops in farm prices.
- It serves as a safety net for farmers, particularly during bumper production years, preventing distress sales.

### Statutory Nature of MSP:

- MSPs do not have statutory backing, meaning that farmers cannot legally demand MSP as an absolute right.
- The absence of statutory support makes MSP a

governmental policy rather than an enforceable entitlement for farmers.

### Crops Covered by MSP:

- The government announces MSP for a total of 22 mandated crops, categorized into:
  - 14 kharif crops, including paddy, jowar, bajra, maize, and pulses.
  - 6 rabi crops, such as wheat, barley, and gram.
  - 2 commercial crops, namely jute and copra.
  - Additional crops like Toria and de-husked coconut have their MSP determined based on related crops like rapeseed & mustard and copra, respectively.

### Fair and Remunerative Price (FRP):

- Fair and Remunerative Price (FRP) is another pricing mechanism specifically for sugarcane.
  - FRP represents the minimum price at which sugar mills purchase sugarcane from farmers.
  - The Cabinet Committee of Economic Affairs announces FRP based on recommendations from the Commission for Agricultural Costs and Prices (CACP).

### Determining Minimum Support Price (MSP): Process and Factors Considered

#### Authority and Announcement:

- The Cabinet Committee of Economic Affairs is responsible for declaring the Minimum Support Price (MSP) at the onset of each sowing season.
- The decision is influenced by recommendations put forth by the Commission for Agricultural Costs and Prices (CACP).

#### Factors Considered by CACP:

- The CACP takes into account several factors when proposing MSPs, including:
  - Demand and supply dynamics of the commodity.

- Cost of production for the specific crop.
- Trends in domestic and international market prices.
- Inter-crop price parity.
- Terms of trade between agriculture and non-agriculture.
- Ensuring a minimum 50% margin over the cost of production.
- Evaluation of the potential impact of MSP on consumers.

### Calculation Methodology:

The CACP relies on state-wise and crop-specific production cost estimates provided by the Directorate of Economics & Statistics in the Agriculture Ministry.

- The calculation involves three cost components:
  - A2 cost: Covers all direct paid-out expenses incurred by the farmer, including seeds, fertilizers, labor, and more.
  - A2+FL cost: Encompasses A2 cost plus an imputed value for unpaid family labor.
  - C2 cost: Represents the most comprehensive cost, factoring in rentals, interest on owned land and capital assets, in addition to A2+FL.

### Discrepancy in Formula Application:

- The National Commission for Farmers, led by MS Swaminathan, recommended MSP under the C2+50 percent formula, incorporating total costs (C2) and a 50% profit.
- However, the government presently announces MSP based on the A2+FL formula, creating a divergence from the Swaminathan Committee's recommendation.

### Benefits and Challenges of Minimum Support Price (MSP) System

#### Benefits:

- **Income Security:** MSP ensures farmers a guaranteed minimum price, providing income secu-

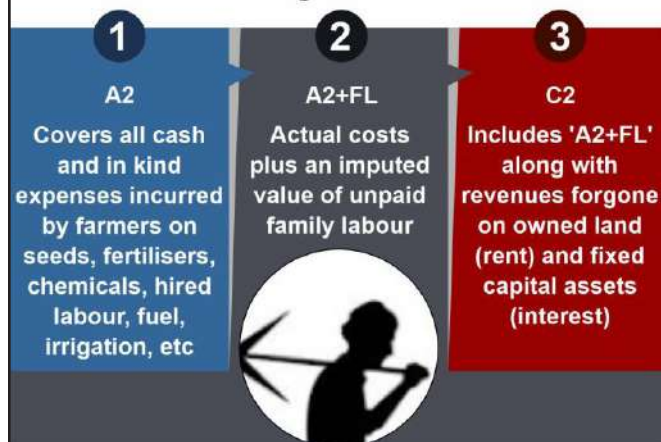
urity and shielding them from market price volatility.

- **Price Stability:** Stabilizes agricultural product prices, preventing extreme fluctuations and ensuring affordability for consumers.
- **Encourages Production:** Motivates farmers to increase production by offering a fair price for their crops, contributing to agricultural growth.
- **Food Security:** Promotes a consistent food supply by encouraging staple crop production, reducing reliance on imports, and enhancing domestic food security.

## HOW ARE MSPs DETERMINED?

The Centre fixes MSPs for every kharif and rabi cropping season based on recommendations of the Commission for Agricultural Costs and Prices CACP

When a farmer grows a crop, he incurs costs, some of it explicit and some implicit or unpaid. The CACP considers the following costs:



### Challenges:

- **Distorted Crop Selection:** MSP focus on specific crops (e.g., rice, wheat) can lead to imbalanced crop selection, affecting agricultural diversity and sustainability.
- **Market Distortions:** MSPs may distort markets, influencing cropping patterns and causing surplus production, leading to storage issues and market inefficiencies.

- **Limited Coverage:** MSP system covers only a subset of crops, leaving those outside vulnerable to market fluctuations and price uncertainties.
- **Storage and Logistics Challenges:** Effective storage and logistics infrastructure is essential for MSP operations; inadequate facilities can result in wastage and losses.
- **Fiscal Burden:** Implementation of MSPs imposes a fiscal burden on the government, requiring substantial resources for procurement and managing surplus stocks. This impacts the government's budget and fiscal health.

### Strategies for a Sustainable Agricultural Future

- **Diversify Agriculture:**
  - Prioritize investments in animal husbandry, fisheries, and the cultivation of fruits and vegetables.
  - Promote crops that are not only nutritious but also offer higher income potential for farmers.
- **Encourage Private Sector Involvement:**
  - Incentivize private sector participation in agriculture.
  - Facilitate the development of efficient value chains through a cluster-based approach.
- **True MSP Intervention:**
  - Implement a genuine Minimum Support Price (MSP) intervention.
  - Intervene when market prices fall below a predetermined level, particularly in cases of excess production, oversupply, or price collapse influenced by international factors.
- **Sustainable Farming Practices:**
  - Promote sustainable farming methods to safeguard soil health and minimize environmental impact.
  - Encourage the adoption of organic farming practices.
- **Access to Credit and Insurance:**
  - Ensure farmers have access to affordable

credit and insurance to mitigate risks associated with crop failure, pests, and natural disasters.

## PRELIMS QUESTIONS

**Q1. Which of the following statements regarding the Food Processing Industry in India is correct?**

1. India is the world's largest exporter of processed food products.
2. The food processing industry in India primarily focuses on raw material exports.
3. The Ministry of Agriculture oversees the regulatory aspects of the food processing sector.

**Which of the following statements are incorrect?**

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

**Q2. What is the primary objective of the Pradhan Mantri Kisan Sampada Yojana (PMKSY) in the context of the food processing industry in India?**

1. Promoting the export of raw agricultural produce.
2. Enhancing the income of farmers through value addition and processing.
3. Restricting the expansion of food processing units.

**Which statement is correct?**

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

**Q3. What is the main purpose of the World Economic Forum's Global Risks Report?**

1. To predict future economic trends.
2. To assess and raise awareness about global risks.
3. To provide investment advice to member countries.

**Which of the above statements is/are correct?**

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

**Q4. What is the primary objective of the World Economic Forum's Global Risks Report in terms of policy making?**

1. To provide specific policy recommendations.
2. To identify risks but not suggest policy solutions.
3. To solely focus on risks within the business sector.

**Which of the above statements is/are correct?**

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

**Q5. Consider the Following Statements in the Context of Development of a New Economy for Inclusive Growth.**

1. The global agenda of sustainable development is possible only when all countries fulfill their share of responsibilities.
2. India is one of the few countries in the world where forest and tree covered areas are continuously increasing despite the development process. The extent of tree covered area in India has reached 80.73 million hectares which is 24.6 per cent of the total geographical area of the country.
3. The agenda of the Rural Development Program revolves around its development mantra – "Sabka Saath, Sabka Vikas" (inclusive development), which aims to ensure that the benefits of development reach the poor and deprived sections.
4. Deen Dayal Upadhyaya Jyoti Yojana aims to provide electricity at affordable rates and focus on green energy, clean energy to increase the power supply.

**Which of the above statement(s) is/are correct?**

- (a) Only 1, 3 and 4
- (b) Only 2 and 4
- (c) Only 1, 2 and 4
- (d) All of these.

**Q6. Consider the following statements regarding LPG reforms or Economic Reforms, 1991:**

1. Manmohan Singh was the Finance Minister of India during the economic liberalization of 1991
2. Primary objective of the LPG reforms in India was to Promote socialist economic policies
3. Due to LPG reforms, a decline in the stock market was noticed.



**How many of the statements given above are correct?**

- (a) One
- (b) Two
- (c) Three
- (d) None

**Q7. Consider the following statements regarding Micro, Small, and Medium Enterprises (MSMEs)**

1. The maximum investment limit for a Small enterprise in the manufacturing sector is 10 crores.
2. The Ministry of Commerce and Industry is responsible for overseeing and implementing policies related to MSMEs in India.
3. Primary objective of the Credit Guarantee Fund Trust for Micro and Small Enterprises is to provide collateral-free credit to MSMEs

**How many of the above statements are correct?**

- (a) One
- (b) Two
- (c) Three
- (d) None

**Q8. Consider the following statements with reference to food inflation.**

1. When there is an imbalance between the demand and supply of food items in any country or its economy, then the prices of food items start increasing.
2. The CFPI monitors price changes of specific food items that are commonly consumed by households.
3. There are six types of CPI.
4. Long-term changes in climate patterns do not affect agricultural products or food production, but rather lead to higher yields in the agricultural sector.

**Which of the above statement /statements is correct?**

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

**Q9. Consider the following statements with reference to the Securities and Exchange Board of India.**

1. It is a statutory body/institution (a non-constitutional body established by the Parliament), which incorporates and regulates the functioning of the Indian capital market.
2. The headquarters of SEBI is located in New Delhi.
3. The Chairman of SEBI also has the power to order "Search and Seizure Operations".
4. It prevents and regulates stock insider trading in India from outside India.

**Which of the following statement /statements is correct ?**

- (a) 1, 2 and 3 only
- (b) Only 1, 3 and 4
- (c) None of these.
- (d) All of which .

**Q10. Consider the following statements with reference to India's first National Center of Excellence for Green Ports and Shipping (INMARCO).**

1. INMARCO is a quadrennial international maritime conference and exhibition, hosted by the Institute of Marine Engineers (Government of India).
2. INMARCO Mission is a major effort towards realizing the eco-friendly lifestyle movement.
3. The Green Voyage 2050 project is a project launched in May 2019 between the Government of Norway and the International Maritime Organization (IMO).
4. India aims to increase the sector's average share of waterways in freight traffic to 5% by 2030.

**Which of the above statement/statements is correct?**

- (a) Only 1, 2 and 3
- (b) Only 2 and 4
- (c) None of these.
- (d) All of these .

**Q11. Consider the following statements regarding Gene Editing:**

1. CRISPR-Cas9 gene-editing system is used in Targeting and Cutting DNA.
2. The term "gene knockout" refers to Turning Off

or Disabling a Gene.

3. DNA ligase is commonly used in the CRISPR-Cas9 system to cut DNA at specific locations

**Which of the following statements given above is/are correct?**

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

**Q12. What is the role of the *Bacillus thuringiensis* (Bt) gene in genetically modified crops?**

- (a) Enhances nutritional content  
(b) Confers resistance to pests  
(c) Improves drought tolerance  
(d) Increases yield

**Q13. What is RNA interference (RNAi) commonly used for in genetic modification?**

- (a) Enhancing photosynthesis  
(b) Suppressing gene expression  
(c) Increasing root growth  
(d) Improving fruit ripening

**Q14. Which of the following is not a type of pulse?**

1. Lentils  
2. Chickpeas  
3. Quinoa

**Which of the statements given above is/are incorrect?**

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

**Q15. What role do pulses play in sustainable agriculture practices?**

1. They deplete soil nutrients.  
2. They enhance soil fertility through nitrogen fixation.  
3. They contribute to water pollution.

**Which of the statements given above is/are incorrect?**

- (a) 1 only

- (b) 2 only

- (c) 3 only

- (d) 2 and 3

**Q16. With reference to Minimum Support Price (MSP), consider the following statements:**

1. MSPs have statutory backing, thus farmers can legally demand MSP as an absolute right.  
2. The government announces MSP for a total of 22 mandated crops

**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

## ANSWERS

S. No.	Answers
1.	C
2.	B
3.	B
4.	B
5.	B
6.	D
7.	A
8.	B
9.	D
10.	B
11.	D
12.	B
13.	B
14.	B
15.	C
16.	B
17.	B

## MAINS QUESTIONS

**Q1.** Describe in detail the measures the Indian government has made to address the issues facing the food processing industry.

**Q2.** What are the reasons for the poor acceptance of a cost-effective small processing unit? How can the food processing sector aid in uplifting the socioeconomic condition of poor farmers?

**Q3.** Examine the role of the World Economic Forum's Global Risks Report in shaping global policy responses. How does the report contribute to international efforts in addressing emerging challenges and risks?

**Q4.** Discuss the key findings and implications of the World Economic Forum's Global Risks Report for the current year and its potential impact on India's economic and geopolitical landscape.

**Q5.** In a New economy for inclusive growth, can technological change create an inclusive future of work and promote inclusive growth? How can pollution be addressed while considering inequalities and injustices in the vision of inclusive development?

**Q6.** Explore the concept of Industry 4.0 in the context of Indian manufacturing. How can the adoption of advanced technologies enhance efficiency and competitiveness?

**Q7.** Discuss the role of government support in fostering innovation and R&D in the manufacturing sector. What policy measures can further encourage technological advancements?

**Q8.** Discuss how the Agricultural Produce Market Committees (APMCs) formed under State Acts in India have not only hindered the development of Indian agriculture but have also been a major cause of food inflation in India? Present a logical explanation.

**Q9.** Discuss in detail the need and importance of a strong regulatory framework for the capital market in India in line with international standards and principles by the Securities and Exchange Board of India in the light of the changing nature

of the financial market.

**Q10.** What is the Sagarmala Project? How INMARCO is helpful in promoting carbon neutrality and financial economy in India and making ports and shipping more environment friendly? Discuss logically.

**Q11.** Discuss the potential benefits and risks associated with the widespread adoption of genetically modified (GM) crops. Include considerations for both agriculture and the environment.

**Q12.** Evaluate the role of genetically modified crops in addressing global food security. What challenges and opportunities do GM crops present in this context?

**Q13.** Examine the environmental sustainability of pulse cultivation. How do pulses impact soil health and contribute to sustainable agriculture practices?

**Q14.** Analyze the role of pulses in addressing global food security. How can the widespread cultivation and consumption of pulses contribute to combating hunger and malnutrition on a global scale?

**Q15.** Critically analyze the efficacy of Minimum Support Prices (MSPs) as a tool for ensuring farmers' welfare in India. Propose innovative solutions or alternative mechanisms that could address the limitations of the current MSP framework.

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## DEFINITION OF SLUM, ITS CHANGING NARRATIVE AND THEIR INNOVATIVE SOLUTIONS



### Why in the News?

Recent article by **Nipesh narayan** in **The hindu newspaper on slums and changing narrative about their definition** issues challenges and their empowerment.

### What is Slum?

A slum is a neighborhood that has subpar housing that is unmaintained, crowded, and/or inadequately served, making it unsafe, unhealthy, and socially unattractive. While a single residence may meet this criteria, the phrase “rural” or “urban” is typically used to refer to larger areas. Like the impoverished who live in them, slums have always existed, but their numbers increased as industrial cities grew.

### Timeline of Changing Perception about Slums

**First era (1950-60)**–The slums were viewed as a legacy of the country’s creation, the product of partition and the influx of a massive population into small, decaying residential zones. Example-old delhi’s katras. Introduction of the Slum Areas Act of 1956 which marked a pivotal moment that made government intervention plausible after an area was officially notified as a slum. After this act slums became legal entity and their citizenship rights were also ignored, their sites were very prone to demolition by government.

**Second era (1970-80)**–The narrative around slums changed from one of a place that needed to be

eradicated to one of as a necessary evil that required advancement. Town planning became crucial in the governance.

**Third era (mid 1980-late 90)**– in 1985 National Commission on Urbanisation published its first report, where cities were considered as an asset rather than liabilities. Interventions in cities were justified based on economic considerations rather than social ones. Town planning suffered a setback while housing policy saw a major shift toward a more comprehensive strategy that addressed land, finance, and infrastructure concerns. During this time, the first two National Housing Policies were implemented. In addition, the National Slum Launching the Development programme brought back targeted funding for slum reconstruction from the union government. It was all based on data because the period depended on economic growth and the emphasis was on a variety of social and physical infrastructure.

**Fourth era( 2000-2014)**–The definition of slums expanded with the aid of the census of 2001, giving rise to numerous specialized programs. Slums were formerly social issues but are now technical, economic items, emphasizing the effectiveness of implementation and economic growth.

### Challenges Faced by Slums

**Overcrowding:** Tight quarters with little room for occupants are a common feature of slums. **Housing of poor quality:** Many slum dwellings are made of improvised materials and lack facilities and adequate foundations. **Water Scarcity:** Access to dependable, clean water sources is frequently limited in slum regions. **Poor Sanitation:** Unsanitary conditions raise the risk of disease because of inadequate sewage and waste disposal systems. **Absence**



**of Essential Services:** Healthcare: Restricted availability of medical services and facilities. **Education:** Lower literacy rates are a result of inadequate educational facilities and resources. Poverty and Joblessness: **Limited Economic Opportunities:** Slum inhabitants frequently struggle to obtain steady jobs, which feeds the cycle of poverty. **Low Income:** Most people living in slum areas usually live below or on minimum income.

**Discrimination:** People who live in slums may experience prejudice and social stigma, which can cause them to become marginalized and shut out of normal society. The susceptibility to calamities **Lack of Resilience:** Slums are more likely to be affected by natural disasters since they are frequently situated in high-risk regions like floodplains or steep slopes. Low levels of security and high rates of crime: **Limited Law Enforcement:** There may not be enough police presence in slum areas, which raises crime rates and makes people feel uneasy. Informal Settlements: Because they frequently do not have a valid land title, people living in slums are at risk of being uprooted and evicted. **Health Issues:** Disease Outbreaks: Respiratory infections, waterborne illnesses, and vector-borne illnesses are among the diseases that are made more likely to spread when living circumstances are poor.

### Measures Taken by Government for the Amelioration of Slums

Jawaharlal Nehru National Urban Renewal Mission(-JNNURM)- The Integrated Housing and Slum Development Programmes (IHSDP) and Basic Services to the Urban Poor (BSUP) are being implemented with an emphasis on integrated slum development and basic services to the urban poor.

**Swarna Jayanti Shahari Rozgar Yojana (SJSRY)-** to give the urban poor who are unemployed or underemployed gainful employment. It does this by promoting self employment among those who fall below the poverty line, offering skill development opportunities, and paying wage workers for their labor when public assets are being built that will benefit society and the economy. This program is applicable to all of the nation's cities and towns.

**Rajiv awas yojana-** Under the Scheme, States that agree to grant slum inhabitants property rights in

exchange for providing them with a respectable place to live, basic civic and social services, slum redevelopment, and the construction of an inventory of inexpensive homes are given financial support.

**The Interest Subsidy Scheme** for Housing the Urban Poor (ISHUP), which offers a 5% interest subsidy on loans up to Rs. one lakh, is being implemented to help the urban poor get credit for housing loans at reasonable rates. RAY and this plan go hand in hand.

## MULTIDIMENSIONAL POVERTY IN INDIA



### Why in the News?

The NITI Aayog has produced a Discussion Paper titled "Multidimensional Poverty in India since 2005-06," which states that 24.82 crore individuals have escaped Multidimensional Poverty over the last nine years. To further understand long-term poverty patterns, the discussion paper draws on data from National Family Health Surveys (NFHS) conducted in 2005-06, 2015-16, and 2019-21.

### Key Highlights Of The Report

- **Substantial Drop in Multidimensional Poverty:** India's multidimensional poverty has decreased significantly, from 29.17% in 2013-14 to 11.28% in 2022-23, a 17.89% point decline. Approximately 24.82 crore people have left multidimensional poverty over the last nine years (2013-14 to 2022-23).
- **State-Wise Decline:** Uttar Pradesh experienced the greatest drop, with 5.94 crore people leaving multidimensional poverty, followed by Bihar (3.77 crore), Madhya Pradesh, and Rajasthan.
- **Successful Achievement of SDG Objectives** Target 1.2 of the Sustainable Development Goals (SDG) is expected to be accomplished by India well before 2030. The target 1.2 targets "at least by half the proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definitions."
- All 12 MPI indicators have improved significant-

ly, demonstrating development in the Health, Education, and Standard of Living dimensions.

### Level Of Deprivation

- Compared to 2005–06 and 2013–14, the **Severity of Deprivation (SoD)** decreased at a marginally slower rate between 2015–16 and 2019–21. Deprivations that the typical multidimensionally poor individual experiences are measured by SoD.
- In addition, because fewer years had passed since 2015–16, the decline in the proportion of MPI poor people in the overall population was faster than it had been during the previous ten years. The percentage of MPI poor people in India's overall population in 2005–06 was 55.34%.
- A Few Notable Initiatives Which The Report Highlights
- Deprivation has dramatically decreased as a result of initiatives like **Poshan Abhiyan** and **Anaemia Mukht Bharat**, both of which have greatly improved access to healthcare facilities.
- Under the **National Food Security Act**, the Targeted Public Distribution System, which is one of the biggest food security programmes in the world, serves **81.35 crore beneficiaries** by supplying food grains to both urban and rural areas.

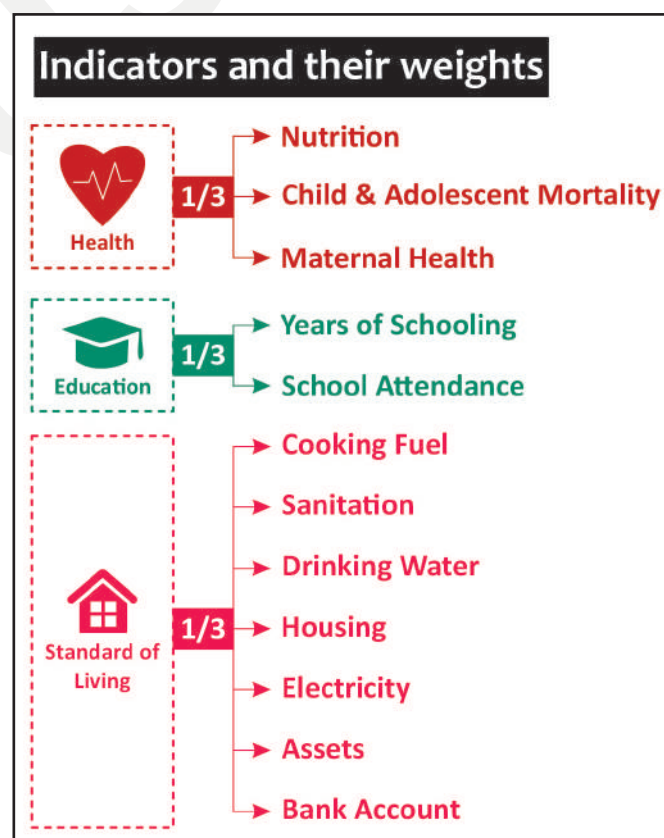
### Multidimensional Poverty

- A poor individual may have several disadvantages at once, such as poor health or malnourishment, a lack of power or clean water, low-quality employment, or insufficient education. To fully grasp the actual nature of poverty, only one factor—such as income is not enough to capture the true reality of poverty.
- Multidimensional poverty is defined as having income or consumption below the \$2.15 worldwide poverty level (as defined by the World Bank) in addition to deprivations in education and access to basic infrastructure. The World Bank sets the daily purchasing power parity (PPP) threshold for the international poverty line at USD 2.15.

### What Is The National Multidimensional Poverty Index?

- Since 2010, the United Nations Development Programme (**UNDP**) has incorporated MPI into its flagship Human Development Report. In this regard, the first edition of the national Multidimensional Poverty Index for India was released in **2021** by NITI Aayog.
- **Goal:** Since a nation's national MPI statistic is customised to fit its priorities, each nation selects its own set of dimensions, indicators, weights, and cutoffs based on its own goals and circumstances.
- The headcount ratio and intensity of multidimensional poverty at the national, state/UT, and local levels are thoroughly examined in this research. The **National Family Health Survey (NFHS)-4** reference period for 2015–16 served as the basis for the first report.

### MPI Parameters & Methodology



- The **solid Alkire and Foster (AF) technique** is used in MPI's worldwide methodology, which

defines people as poor based on widely accepted criteria intended to assess acute poverty and also provides a complementary viewpoint to traditional monetary poverty measures.

- However, the **National MPI** covers **12 indicators** while global MPI covers **10 indicators**. Nutrition, maternal health, child and adolescent mortality, years of education, electricity, school attendance, assets, fuel for cooking, cleanliness, drinking water, housing, and bank accounts are a few of these.

## PM JANMAN SCHEME



### Why in the News?

In continuation of its tribal policy, the government will distribute the first installment of Rs 540 crore for pucca dwellings to one lakh beneficiaries under the PM-JANMAN. On this occasion, the Prime Minister will digitally interact with the beneficiaries of PM-JANMAN, the flagship central project inaugurated in November 2023 for the socioeconomic welfare of especially vulnerable tribal groups (PVTGs).

### About PM Janman Scheme

- **PM JANMAN** is an Indian government programme that tries to integrate tribal groups into society.
- The scheme (which includes both Central Sector and Centrally Sponsored Schemes) would be executed in partnership with state governments and PVTG communities by the Ministry of Tribal Affairs.
- The project will focus on **11 important interventions** that will be managed by **9 Ministries**, ensuring the execution of existing schemes in PVTG communities.
- It includes safe housing under the **PM-AWAS** Scheme, access to clean drinking water, enhanced medical care, schooling, nourishment, road and telecommunications connectivity, and opportunities for sustainable livelihoods.

- The plan also calls for the setting up of **Van Dhan Vikas Kendras** for the trading of forest produce, off-grid solar power systems for 1 lakh families, and solar street lights.
- The plan is expected to improve the PVTGs' quality of life and well-being by addressing their various and intersecting forms of discrimination and exclusion, as well as recognising and respecting their unique and priceless contribution to national and global development.

## PM JANMAN

(Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan)

**A Visionary Initiative toward Tribal Welfare**



Sabka Pucca Ghar



Har Ghar Nal Se Jal



Gaon-Gaon Tak Sadak



Har Ghar Bijli



Shiksha Ke Liye Hostel



Kaushal Vikas



Door Daraz Gaon Tak Mobile Medical Unit



Sabko Poshan



Unnat Aajeevika



Door Daraz Gaon Tak Mobile Network



### Implementation Difficulties:

- The **lack of updated data** on PVTGs is a serious barrier, as the most recent available census data for PVTGs is from 2001, when there were around 27.6 lakh people in these groups. Although the Ministry of Tribal Affairs has begun baseline surveys, an accurate and up-to-date dataset of PVTG populations has yet to be compiled. The lack of current data makes it difficult to accurately assess the needs and progress of PVTG communities.
- The complexity and diversity of PVTG needs and capacities among regions and states, as well as the necessity for customised and flexible ap-



proaches and interventions.

- The stigma and discrimination experienced by PVTGs in mainstream society and the state, as well as the necessity for enlightenment and public awareness among stakeholders and the general public.
- The scheme's coordination and convergence with current schemes and programmes of the federal and state governments, as well as the necessity for effective and efficient delivery and utilisation of resources and services.

### The Circumstances In Which The Pm-Janman Was Launched

- According to the **2011 census**, India is home to a ST population of 10.45 crore, with 75 PVTG groups distributed in 18 states and the UT of Andaman & Nicobar Islands.
- The **Dhebar Commission** revealed discrepancies among Scheduled Tribes in 1960-61, resulting in the introduction of the Primitive Tribal Groups (PTG) category.
- **PVTGs** – pre-agricultural lifestyles, low literacy, tiny or stagnant populations, and subsistence economies – were renamed in 2006. These PVTGs keep on encountering social, economic, and educational challenges.
- As announced in the **Budget Speech 2023-24**, to boost the socio-economic circumstances of the PVTGs, the **PM PVTG of Development Mission** is going to be launched.

**MGNREGA WORKERS NOW MANDATORY TO LINK AADHAAR WITH THEIR BANK ACCOUNT FOR WAGES**



### Why in the News ?

According to the order issued by the Ministry of Rural Development, Government of India, wages under Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) will now be paid directly into bank accounts. Aadhaar based system (ABPS) has been prepared for this. Workers have been

asked to link Aadhaar with their bank account. Laborers/workers will have to link Aadhaar with the bank account in which they have to receive wages. This order will come into effect across India from February 1, 2024. According to the department, out of the target set to generate man days by March 31 in this financial year, currently 76 percent has been achieved.



### Introduction To Mahatma Gandhi National Rural Employment Guarantee Act (Mnrega):

- Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), launched in 2005 by the Ministry of Rural Development, Government of India, is one of the largest labor guarantee programs not only in India but in the entire world.
- The primary objective of the scheme is to guarantee 100 days of employment in every financial year to adult members of any rural household willing to do unskilled manual work related to public work.
- The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has seen a significant increase in women's participation, a historic increase in the current financial year 2023-24.

### What do the Trends of Women's Participation in MNREGA Mean?

#### Meaning of Trends in Women's Participation:

- There has been a gradual increase in women's participation over the last decade, with the percentage increasing from 53.19% during the COVID-19 outbreak in 2020-21 to the current 59.25%.



- Southern states such as Kerala, Tamil Nadu, Puducherry and Goa have significantly higher female participation rates, exceeding 70%, while northern states such as Uttar Pradesh and Madhya Pradesh are around 40% or less.
- Despite historical disparities across the world, some states in India such as Uttar Pradesh, Madhya Pradesh and Lakshadweep have shown recent improvement due to increasing percentage of women's participation rates in the current financial year.

### **The Main Reasons For The Increasing Trend Of Women In The Rural Labor Force:**

- The Periodic Labor Force Survey (PLFS) by the Ministry of Statistics and Program Implementation shows a substantial increase in the female labor force participation rate (LFPR) in rural areas, beyond the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).
- Notable data from the Periodic Labor Force Survey (PLFS) shows that the rural female labor force participation rate (LFPR) has increased from 18.2% in the session 2017-18 to 30.5% in the session 2022-23, with the female unemployment rate declined from 3.8% to 1.8%.
- The scheme provides a legal guarantee of minimum one hundred days of employment in each financial year to adult members of any rural household willing to do unskilled manual work related to public works at minimum wages.
- The number of active employees/workers under this scheme in the financial year/session 2023-24) was 14.32 crore.



### **Key Features of Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA):**

- The cornerstone of the design of MGNREGA is its legal guarantee, which ensures that any rural adult can request work and must get it within 15 days.
- If for some reason this commitment is not fulfilled, then in such a situation those workers should be provided 'unemployment' allowance.
- It is necessary that priority be given to women in such a way that at least one third of the beneficiaries are women who have registered and requested for work.
- Section 17 of MNREGA mandates social audit of all works executed under MNREGA.

### **Organization Implementing MNREGA:**

- The Ministry of Rural Development (MRD), Government of India, is monitoring the overall implementation of this scheme in collaboration with the State Governments.

### **Objective Of MNREGA:**

- This Act was introduced with the aim of improving the purchasing power of the people in rural areas, its main objective is to provide semi or unskilled work mainly to the people living below the poverty line in rural India.
- The Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) seeks to reduce the income gap and lifestyle gap between the rich and the poor in India.

### **Achievements Of MNREGA For The Year 2022-23:**

- Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) has provided employment to about 11.37 crore families across the country.
- Out of this, 289.24 crore person-days of employment has been generated, which includes:
  - 56.19% women
  - 19.75% Scheduled Caste (SC)

- 17.47% are Scheduled Tribe (ST) people.

### **Major Challenges In The Implementation Of Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA):**

#### **Delay And Inadequacy In Distribution Of Funds:**

- Most states in India fail to pay wages within the 15 days mandated by MNREGA or have failed, according to some data. Apart from this, those workers are also not compensated for the delay in payment of wages, which creates many challenges in rural areas.
- Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), has turned the scheme into a supply-based program and after which, workers have stopped taking interest in working under it.
- Substantial evidence received so far, including admissions from the Ministry of Finance, Government of India, indicates that delays in salary payments are a result of inadequate funds.

#### **Negative Impact Of Caste-Based Segregation In India:**

- There were significant variations in the delay in payments under this scheme based on caste in India. 46% payments to SC workers and 37% to ST workers were completed within the mandatory seven-day period, while it was a dismal (26%) for non-ST/SC workers.
- The negative impact of caste-based segregation is particularly felt in poorer states such as Madhya Pradesh, Jharkhand, Odisha and West Bengal.

#### **Ineffective Role Of Panchayati Raj Institution (PRI):**

- Panchayati Raj institution in India is a subject of "State List". In many states of India, the states are not able to implement the MNREGA Act in an effective and efficient manner due to very little autonomy given to the Panchayati Raj Institution (PRI) in practice by that state.

#### **Delay In Completing Tasks And Large Number Of Incomplete Tasks:**

- There has been delay in completing the works under MNREGA within the stipulated time frame and at the same time the inspection of these projects has been irregular. Besides, the issue of quality of work and wealth creation under MNREGA has also been related. As a result, the issue of a large amount of work remaining incomplete also comes to the fore.

#### **Case Like Creation Of Fake Job Card By Including Fake Names:**

- It is coming that there are many issues under MNREGA like creation of fake job cards by including fake names, entries with multiple names missing and delay in inclusion of entries in the job card, posing challenges in its smooth functioning.

#### **Schemes/Initiatives Running Under Mnrega:**

- Amrit Sarovar Yojana: The main objective of this scheme running under MNREGA includes construction/renovation of at least 75 Amrit Sarovar (ponds) in every district of the country which will help in increasing the availability of groundwater both on surface and underground.
- 'Jaldoot' App: This app was launched in September 2022 to measure the water level in a Gram Panchayat through 2-3 selected open wells twice a year in the construction works under MNREGA.
- Lokpal for MNREGA: Lokpal app was launched in February 2022 for smooth reporting and classification of complaints received from various sources related to timely implementation of all schemes under MNREGA.

#### **Way Forward:**

- Even though the Constitution of India has provided all the fundamental rights to women in India in the year 1950 itself and has implemented "equal pay for equal work" and has prohibited any kind of discrimination between men and women on the basis of gender. But even today in Indian society, the working skills and abilities of women are underestimated. Therefore, there is a need to make it practical and visible on the ground for women to get "equal pay for equal work" even in the construction works

done under MNREGA. Any kind of discrimination in the work of men and women is a hindrance in the “building of an inclusive society” and in the “process of building an egalitarian nation”, which needs to be removed with immediate effect.

- There is an urgent need to ensure continuous fund flow to States and implementing agencies by leveraging digital tools for timely and transparent salary payments.

## PRELIMS QUESTIONS

**Q1. Match the list of national institutions and places with states for the treatment and care of persons with disabilities in India.**

Institute	Location
National Institute for Visually Disabled Persons	Dehradun
National Institute for Mentally Handicapped	Secunderabad.
National Institute of Hearing Handicapped	Chandigarh
National Institute for Empowerment of Multiple Disabilities	Patna

**Which of the above statement /statements is correct?**

- (a) Only 1, 2 and 3
- (b) Only 1, 3 and 4
- (c) Only 1 and 2
- (d) None of these.

**Q2. Which of the following is covered by the Multi-dimensional Poverty Index developed by Oxford Poverty and Human Development Initiative**

1. Lack of access to resources, services, health care, and education at the household level
2. Parity in purchasing power at the national level
3. The size of the national budget deficit and GDP

growth rate

**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

**Q3. Examine the following claims on India's Particularly Vulnerable Tribal Groups (PVTGs):**

1. 18 States along with one Union Territory are home to PVTGs.
2. One of the factors used to determine PVTG status is a population that is either stationary or declining.
3. Thus far, 95 PVTGs have been formally notified throughout the nation.
4. The tribes of Konda Reddi and Irular are listed as PVTGs.

**Which of the statements given above are correct?**

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

**Q4. Which of the following statements regarding Particularly Vulnerable Tribal Groups (PVTGs) is correct?**

1. PVTGs are not entitled to any special protection or privileges.
2. PVTGs are identified based on criteria such as pre-agricultural technology, low literacy rates, and a stagnant or declining population.
3. PVTGs have unrestricted access to mainstream education and healthcare services.

**Which of the following statements are incorrect?**

- (a) 1 only
- (b) 2 only



(c) 1 and 3

(d) 2 and 3

**ANSWERS**

S. No.	Answers
1.	C
2.	A
3.	C
4.	D

**MAINS QUESTIONS**

Q1. What is Mahatma Gandhi National Rural Employment Guarantee Act? How will linking your

Aadhaar with your bank account bring transparency in timely payment of salaries to MNREGA workers and implementation of government schemes? Discuss in details.

Q2. Explain the reason that leads to the accumulation of slums and mention measures taken by the government for their amelioration?

Q3. Explore the interlinkages between multidimensional poverty and the United Nations Sustainable Development Goals (SDGs). How can addressing multidimensional poverty contribute to achieving the broader goals of sustainable development?

Q4. Describe the socio-economic challenges faced by PVTGs in accessing education and healthcare services. How can these challenges be addressed to improve their overall well-being?

**MATHEMATICS OPTIONAL****UPSC CSE 2024-25****ONLINE MODE**
 **7<sup>th</sup> FEB. 7:30 AM**
**ADMISSION OPEN**

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# ENVIRONMENT AND ECOLOGY

## HIGH RESOLUTION LANDSLIDE SUSCEPTIBILITY MAP OF INDIA

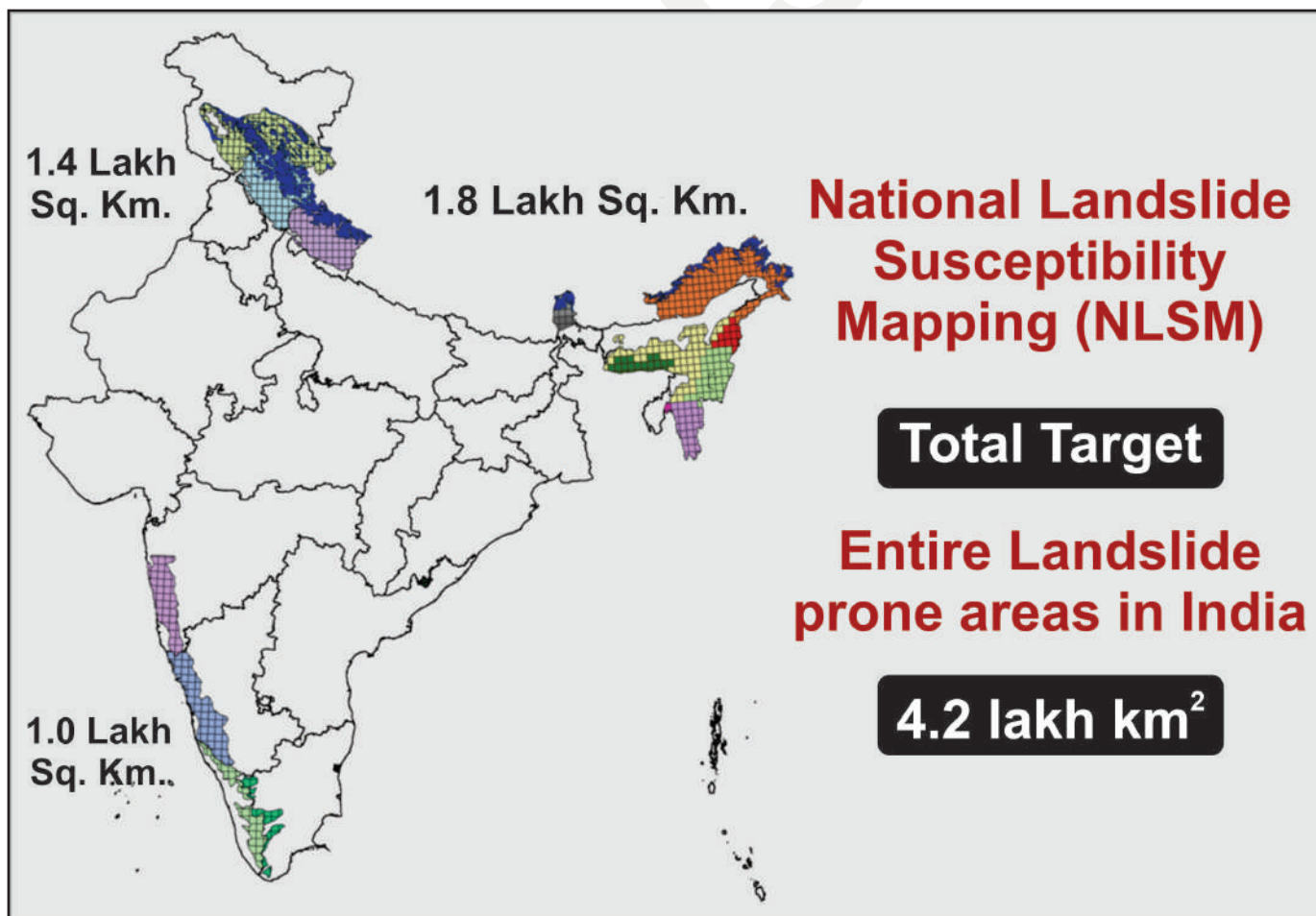


### Why in the News ?

The first high-resolution landslide susceptibility map of India has been developed by the Indian Institute of Technology Delhi, Since it covers the entire nation and excludes no area, it is the first of its type.

### About National Landslide Susceptibility Map

- **Detailed Mapping:** Having a resolution of 100 square metres, this high-resolution map provides an extensive perspective of India's susceptibility to landslides, highlighting hitherto unidentified places.
- **Exploring New Risk places:** The map broadens the scope of places that need to be monitored for landslides by identifying not only typical high-risk zones but also recently unknown locations of concern.



- **Unique Analysis Technique:** To increase forecast accuracy and close data gaps in uncharted territory, the mapping made use of an ensemble machine learning technique.
- **Advantages of Ensemble Models:** This method expertly combines several models, providing a more reliable evaluation of landslide risks.

#### Process of Data collection and Analysis :

- **Data Collection:** Data from several sources, including the Geological Survey of India, were combined with information on about 150,000 landslide incidents by scientists.
- **Identification of Contributing Factors:** The research team discovered 16 significant elements impacting the susceptibility to landslides by using instruments like GeoSadak for remote data collection.

#### Benefits of such maps

- **Permanent Danger :** Landslides, which affect a large but restricted area of India, are a recurrent concern, especially in hilly regions.
- **Challenges of Management :** Historically, the localised and intermittent nature of landslides has made it difficult to monitor and predict the event, highlighting the need for an all-encompassing mapping system.

#### Programme for National Landslide Susceptibility Mapping (NLSM)

- In 2014, the Geological Survey of India launched the National Landslide Susceptibility Mapping (NLSM) programme at a Macro Scale of 1:50,000.
- Mapping the 0.42 million sq. km of terrain that is vulnerable to landslides nationwide is the aim.
- **Aim of the programme:**
  - To establish a comprehensive National Landslide Susceptibility Geodatabase for India.
  - To create continuous, 1:50,000 scale GIS-based maps of India's landslide susceptibility.
  - To create a national GIS-based landslide in-

ventory repository.

#### About Landslides :

A landslide is defined as a mass of rock, earth, or debris sliding down a slope.

**Areas at Risk of Landslides:** Areas at risk of landslides are generally those with less trees, those near road construction, and locally steeper slopes. These areas are also more unstable.

#### Causes of Landslide

**Natural Causes:** earthquakes, undercutting of slopes due to flooding or excavation, snowmelt, Rainfall, etc.

**Anthropogenic Causes:** Mining, excessive development, Overgrazing by cattle terrain cutting and filling, etc.

- **External causes of landslide are –**
  - Undercutting of the hillside's base as a result of quarrying, excavating for roads and canals, and river erosion, among other reasons.
- An increase in external loads, such as those from structures, reservoirs, vehicles, rock piles, alluvium buildup on slopes, etc.
- Increased water content causes a rise in the slope material's unit weight.
- Vibrations brought on by blasting, traffic, earthquakes, etc. that raise shearing strains.
- Human alterations brought on by deforestation
- Tunnelling, cavern collapse, seepage erosion, etc. all result in undermining.
- **Internal causes of landslides are –**
  - A rise in the pressure of pore water.
  - Decline in cohesive capacity produced by gradual lateralization.
  - Cracks brought on by tension-induced alternating swelling and shrinking.
  - The existence and orientation of faults, joints, bedding planes, cleavage, etc.
  - The heating and cooling of rocks and soils.
  - Earth material's physical characteris-

tics, such as its compressive and shearing strengths.

### Impact of Landslides

- **Effect on the Economy:** Property is destroyed by landslides. Millions were spent on its reconstruction and restoration.
- **Infrastructure Damages:** A landslide's forceful flow of mud, rocks, and debris can seriously harm people's personal belongings as well as important infrastructures including roads, trains, recreation areas, buildings, and communication systems.
- **Death toll:** Landslides are more likely to occur in communities near the base of hills and mountains. Because most disaster-prone places are densely populated, people's lives are made much more unpleasant.
- **Impacts landscape beauty:** The movement of dirt, rock, and other material ruins a location's natural appearance.
- **River ecosystems in decline:** The materials that landslides carry with them obstruct or impair the natural flow of these systems. Because it tampers with the normal movement of water, fish, which are found in many river environments, may perish.
- **Trigger Flood:** It may result in the diversion of river water, which may cause flooding and property loss in some locations.

### Mitigation

- **Region-Specific Measures:** Whenever possible, it's best to cope with landslides by implementing area-specific measures.
- **Afforestation:** Some constructive measures include advocating for extensive afforestation initiatives and building bunds to slow down water flow.
- **Limitations on Construction:** It is important to enforce restrictions on the construction of roads, dams, and other developmental projects, to restrict farming to valleys and regions with mild slopes, and to control the growth of

large settlements in high-vulnerability zones.

- **Early Warning and Monitoring System for Landslides:** To notify residents in regions at risk of landslides ahead of time in order to reduce the loss.
- **"Hazard maps"** are used to identify regions that are vulnerable to landslides. Therefore, it is best to avoid developing communities in such places.

## HIMALAYAN WOLF

### Why in the News?

The International Union for Conservation of Nature (IUCN) has evaluated the Himalayan Wolf (*Canis lupus chanco*), a notable lupine predator distributed throughout the Himalayas, for the first time and has categorised it as "vulnerable"

### About Himalayan Wolf

- The **Himalayan Wolf**, or ***Canis lupus chanco***, is a well-known wolf predator that lives all across the Himalayas. It is also known as Tibetan wolves and are genetically different from grey wolves
- **Habitat:**
  - The Himalayan wolf is found mostly in **alpine meadows, grasslands, and rough terrains of the trans-Himalayan region**. This species, which lives at heights ranging from 3,000 to 5,500 metres, has evolved specifically to meet the challenges of high-altitude existence.
  - The Himalayan wolf ranges throughout numerous countries, namely **India, Nepal, Bhutan, and the Tibetan Plateau in China**. Within these locations, they pass through a variety of scenery, including snow-covered plateaus and steep mountain slopes.
  - It can be found in northern India's Union Territory of **Ladakh** as well as the **Lahaul and Spiti** region in northeastern Himachal Pradesh.

### Physical Attributes:



# Himalayan Wolf



## About

The Himalayan wolf (*Canis lupus chanco*) is a canine of debated taxonomy. It is distinguished by its genetic markers, with mitochondrial DNA indicating that it is genetically basal to the Holarctic grey wolf, genetically the same wolf as the Tibetan and Mongolian wolf, and has an association with the African wolf (*Canis lupaster*).

## Threats

Himalayan wolves face illegal trade in fur and body parts. To protect them, measures include restoring wild prey populations, improving livestock guarding, managing feral dog populations, and conducting trans-boundary conservation efforts in rang countries.

## Distribution

The Himalayan wolf is found in China, India, and Nepal. It lives on the Tibetan Plateau in China, Ladakh, and the Lahaul and Spiti regions. In India, it has a population of 350 individuals. In Nepal, it is found in various areas, providing a crucial habitat for the wolf.

## Conservation

- IUCN: Vulnerable
- CITES: Appendix I
- Wildlife Protection Act, 1972: Schedule I

- **Unique Fur Coat:** The Himalayan wolf is distinguished by its thick, woolly fur coat, which it has evolved to protect it from the bitterly cold temperatures that are common in its natural habitat. The wolves' coats, which are frequently light earth tones, aid in their ability to blend in with the rocky and snowy surroundings.
- **Adaptations to High-Altitude Living:** A stocky physique and shorter legs help in navigating the difficult terrain and deep snow. At high elevations, when oxygen levels are lower, effective oxygen intake is made possible by a robust respiratory system.
- **Population Status:** 2,275–3,792 adult individuals are estimated to be in the population, with each subpopulation spanning the Tibetan Plateau, India, and Nepal's Himalayan region. There are 227–378 mature people in the Indian sector, mostly in Ladakh and the Spiti Valley.

### Conservation Status of Himalayan Wolf

- **CITES:** Appendix I
- **Wildlife Protection Act, 1972:** Schedule I

- **IUCN:** Vulnerable

### Ecological Importance:

- **Role in Ecosystem Balance:** The Himalayan wolf plays a vital role in maintaining ecological balance by regulating prey populations, preventing overgrazing, and supporting biodiversity. Their presence influences the behavior of herbivores, which, in turn, affects plant communities and landscape structure.
- **Indicator of Ecosystem Health:** Monitoring the Himalayan wolf population serves as an indicator of the overall health of the high-altitude ecosystems. Their decline could signal imbalances in the delicate ecological relationships within these remote and challenging environments.

### Reason behind Declining Population of Himalayan Wolf Continuously.

- **Habitat Destruction:** The area, extent, and quality of Himalayan wolf habitat are continuously decreasing, according to the IUCN Red List Assessment.
- **Illegal Hunting:** The wolf is also unlawfully hunted in order to sell its fur and various body parts, such as heads, tongues, and paws. Nevertheless, not all of the states where these wolves



are found allow hunting.

- **Depredation Conflict:** Given a seasonal or on-going high livestock abundance in wolf habitats, which frequently form summer pasture land for livestock grazing, depredation conflict is a major conservation concern. These disputes lead to a bad perception of wolf conservation and frequently result in reprisal killings.
- **Hybridization with Dogs:** The study noted that interbreeding between domestic dogs and Himalayan wolves in Ladakh and Spiti is becoming an increasingly significant issue for the wolves. Because there are more feral canines in these locations, this is getting harder. Increased competition between wolves and wolf-dog hybrids for resources, like territory and prey, can be attributed to hybridization.

#### **Actions Which can be taken to Preserve The Himalayan Wolves**

- **Controlling the Populations of Feral Dogs:** The biological balance in wolf habitats can be maintained by controlling the number of government dogs.
- **Safeguard and Restore:** Preserving and replenishing natural prey populations and ecosystems, as well as allocating areas for wildlife habitat preservation.
- **Transboundary Efforts:** Through concerted study and monitoring programmes, this transboundary connection is maintained, allowing wolves to roam freely and preserving their natural behaviours.
- **Enhance Security Methods:** Wolf conservation will be improved by employing sustainable livestock herding techniques, such as lowered livestock loads, adapted herding, and the development of innovative but historically grounded holistic management strategies. Other improvements to livestock guarding techniques include predator-proof corral cages.

## SNOWLESS KASHMIR



### **Why in the News?**

The main Indian tourist attractions, Jammu & Kashmir and Ladakh, have seen little snowfall or rainfall this winter, which has resulted in a drop in visitors.

### **Scenario This Year**

- In Jammu & Kashmir and Ladakh, **winter precipitation** primarily takes the form of **snowfall**. The first snowfall often occurs in the first part of December and lasts through most of January in this area.
- However, **this season** has been generally **dry**. The whole of Jammu and Kashmir as well as Ladakh have mostly avoided rain or snow this winter, despite the fact that the absence of snow is most noticeable in **Gulmarg**, a popular tourist destination at this time of year.
- According to data from the **India Meteorological Department (IMD)**, Jammu and Kashmir experienced an **80%** rainfall shortfall in December and a **100% (none at all)** deficiency in January thus far. There has been absolutely no precipitation in Ladakh in December or January.

### **What Causes Snowless Kashmir?**

- **Western Disturbance**
  - A progressive rise in temperatures, perhaps caused by climate change, and a decrease in Western Disturbance episodes have been linked to the overall trend of decreased snowfall. The main cause of winter precipitation in the Himalayan region is Western Disturbances.
  - There has been a downward tendency in the quantity of Western Disturbance events, which has led to a decrease in total precipitation over the winter.
  - Large rain-bearing wind systems known as "Western Disturbances" originate outside

of Afghanistan and Iran and move eastward, bringing moisture with them from as far away as the Atlantic and Mediterranean Seas.

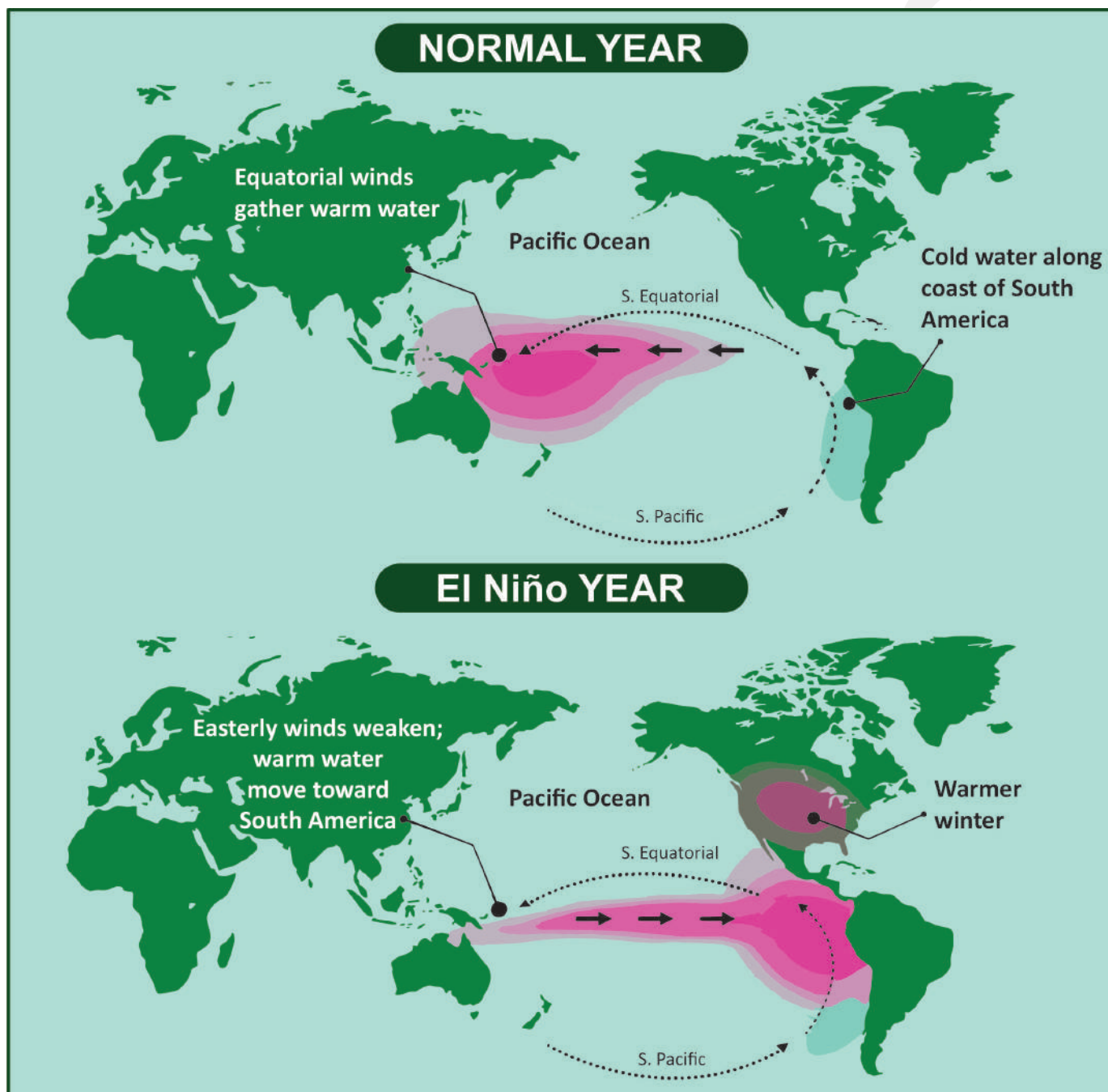
- **Role of Climate Change and El Nino**

- Numerous research have shown that Kashmir's decreasing snowfall is partly due to climate change.
- Snowfall is further impacted by the faster rate of temperature increase in upper elevation

places compared to the lowlands.

- It is proposed that an additional element influencing global air circulation and contributing to the region's precipitation shortfall is the ongoing El Nino event in the eastern Pacific Ocean.

**El Niño** is a climate phenomenon characterized by the periodic warming of sea surface temperatures in the **central and eastern equatorial Pacific**. This disrupts normal weather patterns, leading to droughts, floods, and other extreme conditions



globally. El Niño events occur irregularly, impacting agriculture, fisheries, and weather-related disasters across regions.

### ● Climate And Weather Pattern

This winter, there has been little snowfall or rain in any part of Jammu and Kashmir or Ladakh, with substantial deficits of 80% in December 2023 and 100% in January 2024 (i.e., no rain). In these areas, winter precipitation primarily takes the form of snowfall, which is essential to the local climate.

### What Are The Implications Of Dry Winter Or Snow-less Condition In Kashmir?

#### ● Long-Term Implications

- Reduced production of hydroelectricity
- An upsurge in the glacier melting rate
- Negative effect on the drinking water supply since there is limited groundwater recharge due to the sparse snowfall.

#### ● Short Term Implications

- An upsurge in forest fires may occur during a dry spell.
- Drought affecting agriculture
- Decrease in crop yield.
- **On Agriculture:** Winter crops, especially horticulture, depend on the winter snow because it keeps the soil moist. When there is not enough snowfall, the yields of apples and saffron get negatively impacted.
- **Less Tourists:** Due to a lack of snow, Gulmarg, a popular winter tourist destination in Kashmir, is experiencing a dramatic drop in visitor numbers this year. Even with a significant influx of tourists in 2023, officials anticipate a minimum 60% decrease in foot traffic. The local economy is getting negatively impacted as ski resorts and other companies aren't generating enough profit due to the lack of snow.

## SALTWATER CROCODILES



### Why in the News?

The number of **saltwater or estuarine crocodiles (Crocodylus porosus)** located in and around Odisha's Bhitarkanika National Park has increased slightly in 2024. The park in Kendrapara district has 1,811 crocodiles, as reported by forest officials who ran the annual census. Last year, there were 1,793 crocodiles.

### About Saltwater Crocodile

- Saltwater crocodiles are the **largest living reptiles**. Males can grow to weigh 1,000-1,500 kg (2,200-3,300 lb) and reach a length of 6 m (20 ft), rarely above 6.3 m (21 ft). Females are substantially smaller, rarely exceeding 3 metres (9.8 feet).
- It is also known as the **estuary crocodile**, Indo-Pacific crocodile, marine crocodile, sea crocodile, or saltie colloquially. A huge and cunning hypercarnivorous dominant predator, they ambush the majority of their prey before drowning or swallowing it whole.
- **Distribution And Habitat:**
  - The distribution of saltwater crocodiles is very wide, encompassing the **Indian sub-continent, Northern Australia, Southeast Asia**, and many islands. Their broad distribution is partly due to their capacity to live in freshwater and saltwater habitats.
  - They live mostly in **estuarine** environments, which are places where freshwater and saltwater collide. Their preferred environments are **mangrove swamps, coastal marshes, and river mouths**, which offer plenty of chances for nesting and hunting.
- **Prey:**
  - Saltwater crocodiles are apex predators, preying on a variety of aquatic and terres-

trial species. Their diet includes fish, crustaceans, birds, and mammals, making them crucial for maintaining ecological balance.

- These ambush predators use patience and stealth. Partially submerged, they wait their turn before unleashing a devastating onslaught on gullible targets.
- **Conservation Status:**
  - **IUCN Red list** : Least Concern
  - **WPA, 1972**: Schedule I
  - **CITES** : Appendix I/II
- **Nesting:**
  - Female Saltwater crocodiles construct their mound nests out of mud and plants. Once they lay their eggs, they watch the nests and, when the eggs hatch, they safeguard the hatchlings, exhibiting amazing maternal instincts.
  - Although they are fierce creatures, females are especially exposed when they are breeding because they are at risk from predators and habitat degradation. Protecting nesting sites is a common goal of conservation initiatives.
  - They too have conservation challenges. Threats to their population include illegal hunting, habitat destruction, and confrontations between humans and wildlife

### About Bhitarkanika National Park



- Bhitarkanika is located in the northern section of

the Bay of Bengal, and includes the deltas of the rivers **Brahmani, Baitarani, and Dhamra**. Its distinctive terrain, which includes multiple rivers and estuaries, adds to its biological significance.

- Bhitarkanika National Park is a biodiversity hotspot known for its **extensive mangrove ecosystems** and unique flora and fauna. These mangroves play a pivotal role in maintaining the delicate balance of the coastal ecosystem.
- The park is a **birdwatcher's paradise**, with a diverse range of avian species. During the winter, migratory birds including **herons, egrets, and kingfishers** converge to Bhitarkanika, increasing the area's ornithological attraction.
- The Bhitarkanika estuaries provide habitat for **Irrawaddy dolphins**, which are endangered. The park is also an important breeding site for **Olive Ridley marine turtles**.
- The Bhitarkanika national park is home to all three crocodile species: **Gharial** (critically endangered), **Mugger crocodile** (vulnerable), and **Saltwater crocodile**.

## FOREST FIRES IN HIMALAYAN REGION

### Why in the News?

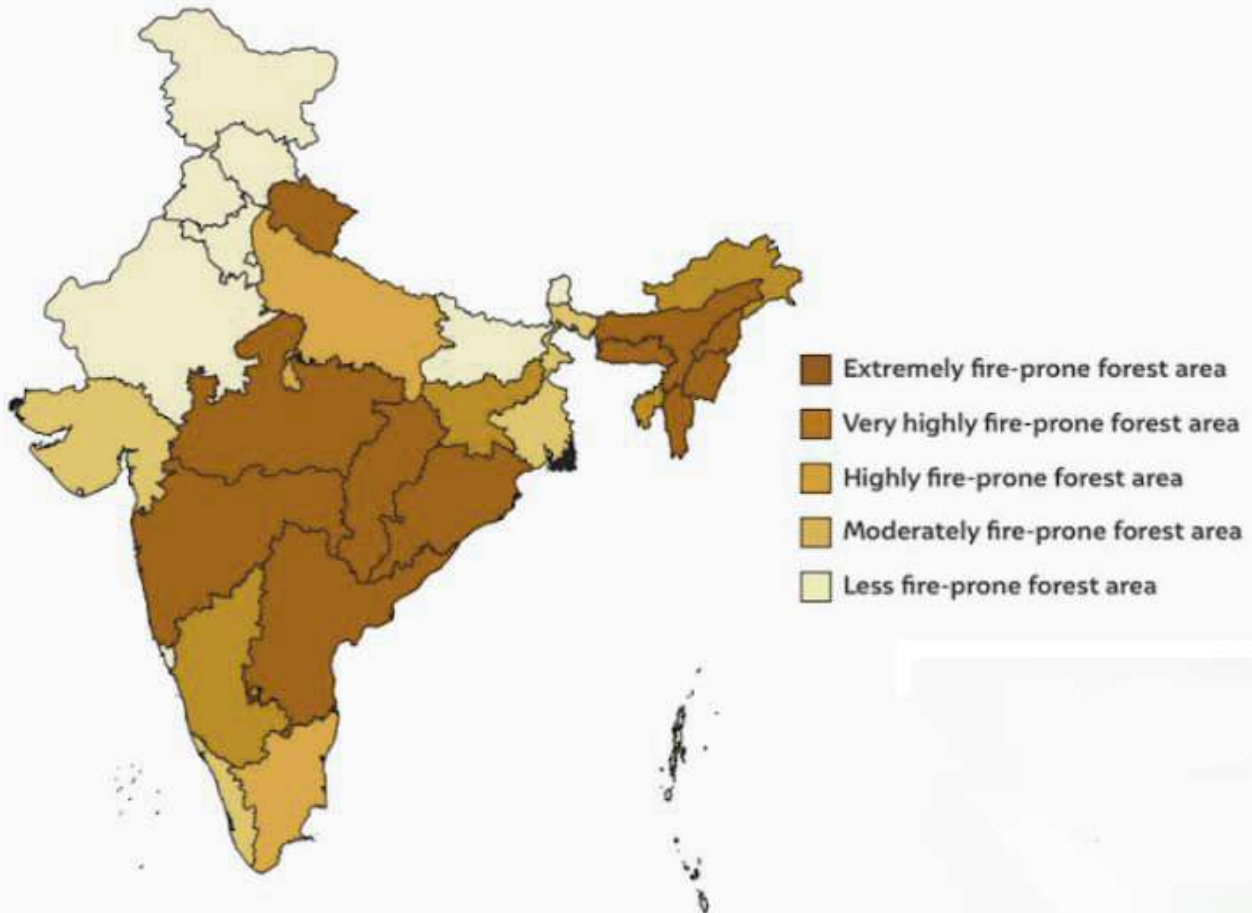
This winter, there have been multiple incidents of forest fires in the Himalayan region, particularly in Himachal and Uttarakhand, due to a lack of rainfall. According to the **Forest Survey of India (FSI)**, there have been 2,050 instances of fires in the forests between 16th October 2023 and 16th January 2024, whereas there were just 296 incidents of forest fires during the same period the previous year.

### Analysis of the Current Situation

- Uttarakhand had the greatest number of fire alerts in India from January 9 and 16, 2024. A **shortage of snowfall and precipitation** in Uttarakhand has increased the frequency of forest fires.
- There wasn't any rain or snow from January



### More than 62% of Indian States are prone to high-intensity forest fire events (2000-19)



1 to 16. Nainital received only 0.8 millimetres (mm) of rain, compared to the 14 mm average. Almora and Bageshwar regularly have more than 15 mm of rain, Chamoli has 20 mm, and Rudrapur and Uttarkashi have 28 and 26 mm, respectively.

- However, Chamoli, Uttarkashi, Pithoragarh, and other hill regions in Uttarakhand have recorded a 100% shortfall in rainfall this season, according to the **India Meteorological Department's** Dehradun centre.

#### Reasons Behind Forest Fires In The Himalayan Region:

- **Less Snowfall and Precipitation:** Snowfall and precipitation are critical for retaining soil moisture and keeping the forest floor from getting too dry.
- **Dry Conditions:** The absence of moisture in the soil and vegetation provides ideal conditions for forest fires. Dry leaves, when paired with dry soil, have the ability to spark a fire. Rising temperatures, presumably due to climate change, lead to forest dryness. Higher temperatures increase evaporation rates, further diminishing soil moisture.
- **Human Activities:** Human activity, such as carelessly discarding cigarettes or indulging in uncontrolled burning, can start a forest fire. Controlled burning by the forest department may also contribute to the problem if not handled correctly.
- **Fire Prone Tree Species:** Fire-prone and combustible trees, such as Chir pine, enhance the risk of forest fires. Chir pine accounts for around 15% of Himachal's forest area.

- **Long Dry Spell Period:** A lengthy dry spell occurs when there is no rain or snowfall for several months, increasing the risk of fires in the region.

### Different Types of Fires

- **Surface Fires:** These fires spread throughout the forest floor, fueled by dry leaves, grass, and debris. They move slowly and help manage undergrowth, which contributes to ecosystem health.
- **Crown Fires:** Crown fires are more intense, causing the burning of treetops and upper branches. They spread quickly and generate great heat, frequently causing substantial ecological damage and disrupting wildlife habitats.
- **Ground Fires:** Ground fires occur in organic soils beneath the surface and are distinguished by the slow combustion of roots, peat, and other below-ground plants. They are difficult to extinguish and can remain smouldering over long periods of time.
- **Surface Fires:** These fires start on or near the forest floor and consume ground-level vegetation. They contribute to nutrient cycling and can benefit some types of ecosystems

### Negative Impact Of Forest Fires On Himalayan Region

- **Biodiversity Loss:** Data from the Forest Survey of India suggests a gradual loss in forest cover in the Himalayan region owing to fires. For example, between 2017 and 2019, Himachal Pradesh recorded a loss of about 826 square kilometres of forest cover.
- **Erosion and Soil Degradation:** According to data from the Indian Council of Agricultural Research (ICAR), forest fires have a substantial impact on soil erosion and degradation. Between 2015 and 2020, topsoil loss in Uttarakhand increased by 15%.
- **Loss of Livelihoods:** A World Bank study found that forest-dependent people in the Himalayan region are severely impacted. Loss of livelihoods owing to destroyed forests and disrupted ecosystems has made approximately 20 per cent of the population in these regions prone

to poverty.

- **Health Hazards:** Air quality reports from the Central Pollution Control Board show that in peak fire seasons, air quality in Uttarakhand and Himachal Pradesh deteriorates dramatically. Respiratory infections have significantly increased, harming the health of local inhabitants.

### Methods To Mitigate Forest Fires And Initiatives Taken By Government

- **Preventive Measures:** According to data from the **National Disaster Management Authority (NDMA)**, preventive measures such as controlled burning and firebreaks are increasingly being implemented. States such as Himachal Pradesh have claimed a 30% drop in forest fire incidence since implementing preventive techniques.
- **Community Participation:** Examples- **Uttarakhand's Van Panchayats** demonstrate the benefits of community involvement. These local forest management committees are active in fire prevention, resulting in a 25% reduction in fire incidence in their managed regions.
- **International Cooperation:** The **International Centre for Integrated Mountain Development (ICIMOD)** promotes data and technology cooperation among Himalayan countries. Cooperation in early detection with satellite imagery has increased reaction times, reducing the spread of flames across borders.
- **Technical Integration:** Real-time monitoring is carried out by the Indian Forest Survey using advanced technology such as satellite images and remote sensing. This technology integration has increased early detection rates by 40%, facilitating timely response and containment.

DETERIORATING AIR  
QUALITY IN INDIA



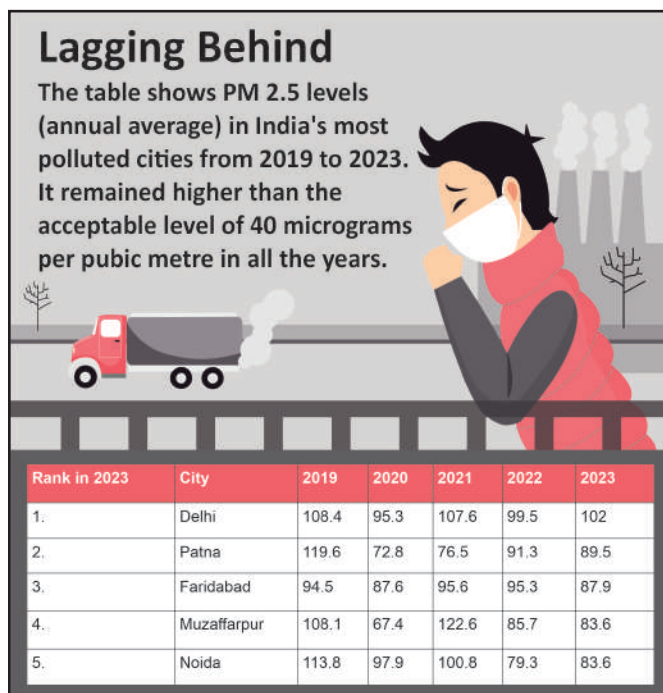
### Why in the News?

Respirer Living Sciences and Climate Trends have just published a study which revealed that the vast

majority of cities are far from India's National Clean Air Programme (NCAP) clean air targets.

### Key highlights of the study

- **PM 2.5:**
  - Only 27 of the 49 cities having continuous PM2.5 data over five years demonstrated a decrease in PM2.5 levels, with only four cities meeting or exceeding the targeted fall as per National Clean Air Campaign (NCAP) Goals.
  - The NCAP's objective is to decrease aggregate particulate matter (PM) concentrations in 131 cities by 40% by 2026.
  - The target was originally set for a 20-40% decrease by 2024, however it was subsequently postponed to 2026.



- **Regional vulnerabilities:**
  - While some places, such as Varanasi, Agra, and Jodhpur, had large reductions in PM2.5 levels, others, such as Delhi, saw just moderate reductions (only 5.9%) or even increased pollution loads.
  - Varanasi saw the most significant drop, with a 72% average fall in PM2.5 levels through a

69% decrease in PM10 levels between 2019 and 2023.

### Challenges while monitoring

- Annual pollutant concentrations are heavily influenced by the availability and deployment of permanent ambient air quality monitoring.
- However, many Indian cities do not have a sufficient number of such monitoring stations. While cities like Mumbai and Delhi have a number of such stations, other Indian cities only have a few.
- A mere four out of 92 cities possess more than ten stations of this type.
- **Pollution Influencing Factors:** Variability in levels of pollution can be related to geographical regions, various emission sources, meteorological impacts, and the interaction between emissions and Meteorology, all of which warrant more exploration.

### What is National Clean Programme

- The Ministry of Environment, Forests, and Climate Change (MoEFCC) launched it in January 2019.
- It is the nation's first attempt to develop a national framework for air quality control with a time-bound reduction target.
- The NCAP's objective is to decrease average particulate matter (PM) levels in 131 cities by 40% by 2026. The target was originally set for a 20-40% decrease by 2024, however it was subsequently pushed up to 2026.
- It applies to the 131 non-attainment cities listed by the Central Pollution Control Board (CPCB):
  - Non-attainment cities have failed to meet the National Ambient Air Quality Standards (NAAQS) for more than five years.
  - NAAQs are ambient air quality standards based on numerous identified pollutant notifications made by the CPCB under the Air (Prevention and Control of Pollution) Act of 1981.

- Pollutants covered by NAAQS include PM10, PM2.5, SO2, NO2, CO, NH3, Ozone, Lead, Benzene, Benzo-Pyrene, Arsenic, and Nickel.
- PRANA (site for Regulation of Air Pollution in Non-Attainment Cities) is a monitoring site for NCAP implementation.

### About Particulate Matter

- Particulate matter is an airborne combination of solid particles and droplets of liquid. Sulphates, nitrates, black carbon, particle-bounded water, elements (cadmium, copper, nickel, and zinc), hydrocarbons, and biological components such as allergens and microbial chemicals are all Particulate matter.
- **Different types of PM**
  - **PM 10:** Inhalable particles having sizes of fewer than 10 micrometres.
  - **PM 2.5:** Inhalable fine particles with a diameter of less than or equal to 2.5 micrometres.
- **Sources:**
  - Man-made causes is from Emissions from power plants, factories, industries, incinerators, diesel generators, and autos, dust from building sites and unpaved roads, and garbage burning.
  - Natural causes include volcanic eruptions, soil erosion, sea salt, and so on.
- **Harmful effects :**
  - **Respiratory disorders:** Prolonged exposure can result in chronic obstructive pulmonary disease, asthma, bronchitis, chest getting tighter, and harm to the lungs.
  - As per WHO, practically 3.7 million deaths occur prematurely each year as a result of outdoor air pollution, with respiratory illnesses and malignancies induced by PM exposure accounting for 20% of these deaths.

### Initiatives Taken to Control Air Pollution?

- The National Air Quality Monitoring Programme (NAMP) has identified four air pollutants for

regular surveillance across the country: SO2, NO2, PM10, and PM2.5.

- System of Air Quality and Weather Forecasting and Research (SAFAR) Portal
- The Air Quality Index (AQI) was created for eight pollutants: PM2.5, PM10, ammonia, lead, nitrogen oxides, sulphur dioxide, ozone, and carbon monoxide.
- To Reduce Vehicle Pollution: BS-VI Vehicles introduced, Electric Vehicle (EV) Push by government( FAME scheme, Production Linked Incentive scheme)

### Way Forward :

- **Transition to Clean Energy Sources:** Promote the use of renewable energy sources such as solar, wind, and hydropower. Transition away from fossil fuels by encouraging electric vehicles and investing in public transportation.
- **Stringent Emission Standards:** Implement and enforce strict emission standards for industries, vehicles, and power plants. Regularly update and improve emission standards to keep up with technological advancements.

## PRELIMS QUESTIONS

### Q1. What role does heavy rainfall play in triggering landslides in the Himalayan region of India?

1. Heavy rainfall is not a significant factor in Himalayan landslides.
2. Heavy rainfall can saturate the soil, leading to increased landslide risk.
3. Heavy rainfall stabilizes the soil, reducing the likelihood of landslides.

### Which statement is correct?

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

### Q2. Which of the following statements regarding landslides is correct?



1. Landslides are exclusively caused by human activities.
2. Landslides can occur only in mountainous regions.
3. Excessive rainfall is a common trigger for landslides.

**Which of the following statements are incorrect?**

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

**Q3. 'Invasive Species Specialist Group' (that develops Global Invasive Species Database) belongs to which one of the following organizations?(UPSC Prelims 2023)**

- (a) The International Union for Conservation of Nature
- (b) The United Nations Environment Programme
- (c) The United Nations World Commission for Environment and Development
- (d) The World Wide Fund for Nature

**Q4. Consider the following statements regarding IUCN**

1. Primary purpose of the IUCN Red List is to Identify endangered species
2. IUCN Red List get updated every 3 years

**Which of the following statements given above is/are correct?**

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

**Q5. Consider the following statements regarding El-Nino**

1. It occurs in every 2 years
2. It causes droughts in South America

3. La Nina is the opposite phenomenon of El-Nina

**Which of the following statements given above is/are correct?**

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

**Q6. Consider the following statements regarding saltwater crocodile**

1. Saltwater crocodiles predominantly inhabit in Estuarine ecosystems
2. IUCN has assigned them Least concern status.

**Which of the following statements given above is/are correct?**

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

**Q7. Consider the following statements regarding National Disaster Management Authority:**

1. The President is the head of the National Disaster Management Authority in India.
2. National Disaster Management Authority (NDMA) was established in 2005
3. Disaster Management Act, 1999 provides the legal framework for the functioning of the National Disaster Management Authority in India

**Which of the above statements is/are correct?**

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

**Q8. What is the size range of particles classified as PM<sub>2.5</sub>?**

- (a) Less than 2.5 micrometers
- (b) Less than 25 micrometers
- (c) Less than 2.5 millimeters
- (d) Less than 0.25 micrometers

### ANSWERS

S. No.	Answers
1.	B
2.	D
3.	A
4.	A
5.	D
6.	C
7.	B
8.	A

### MAINS QUESTION

**Q1.** Examine the role of the National Disaster Management Authority (NDMA) in India. How does NDMA coordinate disaster preparedness, response, and recovery efforts at the national level?

**Q2.** Analyze the role of technology, including geo-spatial mapping and remote sensing, in disaster management in India. How can these technologies enhance preparedness and response efforts?

**Q3.** Explore the role of indigenous communities in animal conservation. How can traditional knowledge and practices contribute to sustainable wildlife management?

**Q4.** Compare and contrast the effects of El Niño and La Niña on the Indian climate. Highlight the distinct characteristics of these phenomena and their varied impacts on monsoons, temperatures, and extreme weather events in different parts of the country.

**Q5.** Assess the current state of biodiversity in India, considering factors such as habitat loss, species endangerment, and conservation efforts.

**Q6.** What are the major challenges faced by India in preserving its rich biodiversity, and what strategies can be adopted to address these challenges?

**Q7.** Analyze the role of community engagement and awareness programs in landslide risk reduction. How can the NDMA work with local communities to enhance their resilience and preparedness for potential landslide events?

# ECONOMICS OPTIONAL

## UPSC CSE 2024-25

**EVENING BATCH**

10<sup>th</sup> February 2024

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## LEFT WING EXTREMISM

### Why in the News?

At a review meeting of Chhattisgarh's Left Wing Extremism (LWE) situation convened in Raipur on Sunday afternoon, the Union Home Minister, Amit Shah, underlined the importance of liberating the affected areas of the state within the next three years. He emphasised that the problem was limited to select areas of Chhattisgarh.

### Left Wing Extremism (LWE)

**Left-wing extremism** describes the activities of numerous militant groups that adhere to leftist ideals and strive to achieve a classless society via revolutionary means. The most visible of these organisations is the Communist Party of India (Maoist), also known as Naxalites. **Naxalism** began in the late 1960s and has grown to be a substantial security concern for the Indian government.

- These left-wing radicals are most active in central and eastern India, particularly in the states of **Chhattisgarh, Jharkhand, Odisha, and Maharashtra**. They use concerns like **land rights, tribal displacement, and economic inequities** to rally supporters and recruit cadres. The insurgents frequently use guerilla warfare methods, targeting security troops, government officials, and infrastructure.
- Naxalism's origins can be traced back to the **Naxalbari revolt** in West Bengal in 1967, when dissatisfied peasants and tribal tribes rose out against oppressive landlords. The movement

was inspired by Maoist doctrine, which emphasised armed struggle and the establishment of a classless society. The initial movement in Naxalbari laid the groundwork for future communist insurgencies.

### What Are The Reasons Behind The Spread Of Left Wing Extremism (Lwe)?

#### Socio-Economic Disparities:

The regions affected by left-wing extremism are often characterized by deep-seated socio-economic disparities, with marginalized communities, tribal populations, and peasants facing landlessness, exploitation, and lack of access to basic resources. The insurgents capitalize on these grievances to garner support and recruit cadres.

#### Tribal Displacement and Land Rights:

Many areas affected by left-wing extremism are home to indigenous tribal communities. The process of industrialization and infrastructure development has led to forced displacement and encroachment on tribal lands. The discontent arising from these issues becomes a fertile ground for extremist ideologies.

#### Governance Failures:

Weak governance, corruption, and inadequate provision of basic services in affected regions contribute to a sense of alienation and disillusionment among the local population. The inability of the government to address the root causes of discontent creates space for extremist groups to exploit the situation.

#### Ineffective Development Policies:

Development policies that fail to reach the grass-



roots level and address the specific needs of marginalized communities contribute to the appeal of leftist ideologies. In some cases, developmental projects are perceived as detrimental to the interests of the local population, further fueling resentment.

### Lack of Inclusive Growth:

The uneven distribution of the benefits of economic growth exacerbates social inequalities. Left-wing extremist groups position themselves as champions of the oppressed, promising to address the economic and social disparities that persist in these regions.

### Current Situation Of Left Wing Extremism In India

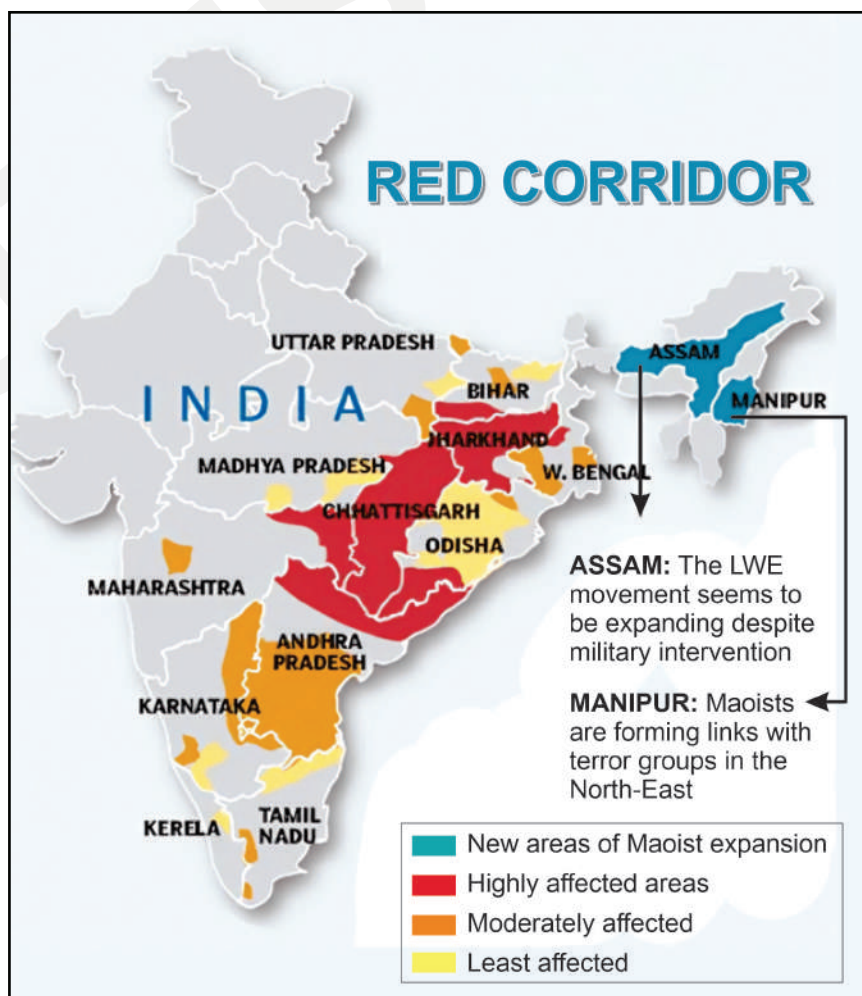
- The Ministry of Home Affairs reports that Maoist violence in the country has decreased by **77%** since 2010, with a **90%** reduction in deaths (security forces and civilians) from a high of 1,005 in 2010 to 98 in 2022. The government has reduced the number of districts considered Naxal-affected from more than **200** in the early 2000s to a mere **90** now.
- It says that the geographical extent of violence is actually limited to **45** districts. As per MHA, the arc of violence has been significantly reduced, with only 25 districts accounting for 90% of all LWE violence. The presence of Naxals is claimed to be nonexistent in Telangana, Andhra Pradesh, Odisha, Jharkhand, and the state of Bihar which were once their strongholds.

### Reason Behind Stronghold Of Lwe In Chhattisgarh.

#### Late Involvement of State Police in Anti-Maoist Actions:

- It is commonly believed in counter-Maoist strategy that the struggle against Left Wing Extremism can only be fought by state police rather than central forces.

- This is because state police have local expertise and networks, which are critical for intelligence gathering. States like Andhra Pradesh, West Bengal, Odisha, and Jharkhand were able to put a stop to their Maoist crisis thanks to the active involvement of local police.
- According to security sources, the procedure began late in Chhattisgarh. By this point, police in bordering states had driven Maoists from their territories to Chhattisgarh, creating a concentrated zone of Maoist dominance.
- **Dearth of roads in the interior of Bastar.** The paucity of roads in Bastar's interior has hampered security forces' activities. The administration's minimal presence in the interiors of South Bastar has guaranteed that Maoists maintain their influence in the region.
- **Social Injustice and Exploitation:** Social injustice, including issues related to caste discrimination,





nation, exploitation by local elites, and human rights abuses, further fuels resentment among the local population. Left-wing extremist groups exploit these grievances to build support.

### Initiatives Taken By Government To Curb Lwe

- **Operation Green Hunt:** It began in 2010, when a significant deployment of security personnel was carried out in Naxal-affected areas. In the nine years since 2010, the number of districts plagued by naxalism has decreased from 223 to 90
- The government even launched a '**Relief and Rehabilitation Policy**' aimed at bringing Naxalites into mainstream society
- **Aspirational Districts Programme:** Launched in 2018, it intends to rapidly reform the districts that have shown substantially poorer growth in key social sectors.
- The Centre proposes **installing mobile towers** in interior areas to improve connectivity and create technical intelligence for locals.
- **National Rehabilitation and Resettlement Policy, 2007:** The main objective of this Act was to limit displacement of individuals in affected areas while also providing good alternatives for dispersal. The government implemented this programme for people whose land government had taken for industrial development.
- **Chhattisgarh Special Public Securities Act, 2006 :** This act defined the illicit acts that were common in these locations and labelled some organisations illegal. This act empowers the government to establish an advisory board wherever the state government deems it necessary. It also specifies the procedures for forming such a board, as well as the sanctions and punishments.

## CYBER CRIMES



### Why in the News?

According to Rajesh Kumar, chief executive offi-

cer of the Indian Cyber Crime Coordination Centre (I4C), Ministry of Home Affairs (MHA), around 50% of cyber-crime complaints received on the national cyber crime helpline every day have their origin in China and pockets of Cambodia and Myanmar.

### What is cybercrime?

- Cybercrime is defined as criminal activity carried out through the use of computer networks or digital technology.
- It refers to a wide range of illicit operations that take advantage of flaws in computer systems and networks.
- Cybercriminals often aim to steal sensitive information, financial data, or disrupt digital systems for financial gain or malicious intent. The motive behind cybercrime can vary, including financial gain, political motives, revenge, or simply causing chaos.
- Malware, social engineering, and exploiting software flaws are some common cybercrime methods.
- It can target individuals, businesses, governments, or critical infrastructure, posing a threat to national security.

### Some types of cybercrimes are-

- **Hacking :** Hacking is defined as unauthorised access to computer systems or networks in order to get information or disrupt operations.
- **Phishing:** False attempts to get sensitive information, such as passwords or credit card numbers, by impersonating a trustworthy institution.
- **Ransomware:** Malicious software that encrypts a user's files and demands payment to unlock them.
- **Identity theft :** It is the theft of personal information in order to impersonate someone for financial gain or other fraudulent purposes.
- **Online fraud :** It refers to deceptive practices carried out over the internet in order to defraud individuals or corporations for financial gain.
- **Malware :** It is the malicious software that is

meant to harm or exploit computer systems, such as viruses, spyware, and trojans.

- **Denial-of-Service (DoS) Attacks:** Overloading a system or network to render it unavailable to users, causing services to be disrupted.
- **Cyber Espionage :** The illegal access and theft of sensitive information in order to gain intelligence or a competitive advantage.
- **Social Engineering :** Manipulation of individuals to reveal secret information or undertake security-compromising acts.
- **Cryptojacking :** Unauthorised use of another person's computer to mine bitcoins without their knowledge or agreement.

#### Negative impact of cybercrime-

- **Financial Loss:** Individuals, corporations, and governments can all suffer major financial losses as a result of cybercrime.
- **Data Breaches:** The exposure of sensitive information can result in identity theft, fraud, and the invasion of an individual's privacy.
- **Operational Disruption :** Cyberattacks, like ransomware or denial-of-service attacks, can disrupt routine operations, resulting in downtime and financial losses.
- **National Security Threat :** Cybercrime creates a national security risk when key infrastructure, government systems, or military networks are targeted.
- **Intellectual Property Loss:** Businesses may lose important intellectual property as a result of cyber espionage, reducing their competitiveness.
- **Reputational Damage :** Organisations can suffer reputational loss as a result of data breaches or other cyber incidents, affecting trust and credibility.
- **Global Economic Impact :** Cybercrime can have a broader impact on the global economy, affecting interconnected systems and international trade.

#### Initiatives taken by government to assuage the frequency of cybercrimes

- **CERT-In (Indian Computer Emergency Re-**

**sponse Team):** The national nodal agency for responding to cybersecurity issues is CERT-In. It provides proactive and reactive cybersecurity support and is critical to the country's cyber infrastructure's security and resilience.

- **Botnet Cleaning and Malware Analysis Centre (Cyber Swachhta Kendra):** This campaign aims to raise awareness about botnet and malware infections and also to provide detection and cleaning solutions.
- **Indian Cyber Crime Coordination Centre (I4C):** I4C was developed by the government to provide a framework and ecosystem for Law Enforcement Agencies (LEAs) to deal with cybercrime in a comprehensive and coordinated manner.
- **National Cyber Security Policy:** (a) The goal of this policy is to provide a safe and resilient cyberspace for individuals, enterprises, and the government. (b) It includes several goals and tactics for protecting cyberspace information and infrastructure, developing capacities to avoid and respond to cyber attacks, and minimising harm through collaborative efforts of institutional structures, people, procedures, and technology.
- **National Cyber Crime Reporting Portal:** (a) The government has developed the National Cyber Crime Reporting Portal in order to allow citizens to report incidents involving all sorts of cybercrime. (b) A toll-free hotline 1930 has been established to help people in filing online cyber complaints. (c) The Citizen Financial Cyber Fraud Reporting and Management System module has also been launched to allow for the prompt reporting of financial frauds and to prevent criminals from siphoning off monies.

#### SIGNING OF PEACE DEAL WITH ULFA



#### Why in the News?

On December 29, 2023, the United Liberation Front of Assam (ULFA) pro-talks faction signed a tripartite peace agreement with the Central government and the state government of Assam. Several provisions

present in the memorandum of settlement are in support of protecting indigenous groups' political and land rights which will also help in the development of the State. But, the Paresh Baruah-led anti-talks faction has not yet signed a peace agreement.

#### Important features of the signed peace agreement –

- Representatives of ULFA have pledged –
  - To abstain from violence
  - Surrender their weapons
  - Take part in the democratic process
  - To protect the integrity and sovereignty of India.
- The government has pledged the investment of approximately ₹1.5 lakh crore in the upcoming years for the development of Assam.
- The Assamese Assembly has 126 seats; now 97 of those seats will be allocated for indigenous people. Delimitation process in future will follow this idea.
- The Indian government's Ministry of Home Affairs will make a time-bound plan to address ULFA's demands, and a dedicated committee will be established to oversee it.

#### About ULFA –

- The United Liberation Front of Assam (ULFA) is a separatist militant organization founded in 1979 in Assam, a northeastern state of India. It originated from the anti-immigrant All Assam Students Union movement (AASU)
- ULFA was first established to address the perceived political and socio economic problems of the Assamese people. However, over time, the organization evolved to demand that Assam become a sovereign state independent of Indian authority.
- ULFA launched a violent insurgency against politicians, security personnel, and civilians in the 1980s and 1990s. Due to the group's actions, there was instability in the area.
- **Government Reaction:** To combat the increas-

ing violence, the Centre started "Operation Bajrang" in 1990, which resulted in the arrests of over 1,200 ULFA rebels. President's rule was imposed and implementation of Armed Forces Special Powers Act (AFSPA) took place.

#### Reasons behind the rise of ULFA and the insurgency in Assam

- **Ethnic and Cultural Identity** : Assam is home to a number of different ethnic communities, and there have always been conflicts between the native ethnic groups/tribes in the region for a long time.
- **India's Partition and Bangladesh Liberation War** : The 1947 Partition of India and resulting flood of refugees from then East Pakistan into Assam increased the feeling of worry. In addition, a number of Bangladeshi citizens migrated to India after the 1971 conflict.
- **Economic Discrimination**: Region's underdevelopment and economic imbalances worsened the situation. There is a perception that Delhi is exploiting the resources of the North East with developing the seven sisters. Youth dissatisfaction has been further increased by inadequate infrastructure, education, and employment possibilities, hence making them vulnerable to join insurgent organizations.
- **External Support** : ISI of Pakistan had supported the ULFA militants by providing them with training, weapons and money. ISI trained them in terrorist tactics, counter intelligence, disinformation and weapon's use.
- **Armed Forces Special Powers Act (AFSPA)**: The presence of the Armed Forces Special Powers Act, which grants special powers to the armed forces in conflict areas, has been a source of controversy. Critics argue that it has led to human rights abuses and further alienated the local population.

#### Importance of Peace Agreement

- **Ensuring peace in Assam** : More than 10 thousand people have been killed from both sides since the beginning of ULFA conflict.

- **Surrender of Cadres** : Over 9000 cadres have surrendered in Assam alone and over 85% of Assam has been lifted out of AFSPA.
- **Economic Development** : ₹1.5 lakh crore investment had been pledged by the government in the peace accord for the development of Assam.
- **Strengthening India's sovereignty** : ULFA has decided to recognize the supremacy of the Indian Constitution and to work for the integrity of the nation.

#### Challenges still persisting after Peace agreement

- **ULFA-I missing** : ULFA-I led by Paresh Baruah, has not signed the peace agreement, which means violence will still exist in the state of Assam.
- **Existing foreign links** : ULFA had links with ISI of Pakistan, other insurgent outfits in the north-east and with many Islamic terror outfits like Harkat-ul-Jihad-e-Islami, and Al-Qaeda. It still has launchpads for cross border operations
- **Slow Implementation**: Because of the logistical, political, and social complications involved, it is hard to bring agreed-upon terms into action.
- **Historical grievances** : Deeply ingrained historical grievances about the identity, autonomy, land rights, and socio economic inequality are the main cause of insurgencies in the North-east. So, saying that a peace agreement will fully address all of these problems is hard.

#### PRELIMS QUESTIONS

##### Q1. Consider the following statements regarding Naxalism in India

1. Maharashtra witnessed the birth of the Naxalite movement in 1967
2. Naxalites primarily follow the ideology of Capitalism
3. Naxalites generally use Guerrilla warfare in their operations.

##### How many of the following statements is/are correct?

- (a) One
- (b) Two
- (c) Three
- (d) None

##### Q2. Which section of the IT Act authorises law enforcement agencies to issue orders for the interception or monitoring of any information transmitted via computer systems?

- (a) Section 43
- (b) Section 66A
- (c) Section 69
- (d) Section 79A

#### ANSWERS

S. No.	Answers
1.	A
2.	C

#### MAINS QUESTION

**Q1. Examine the socio-economic grievances that often serve as a breeding ground for left-wing extremism in India. How do these grievances contribute to the recruitment and support for extremist groups?**

**Q2. What is the reason behind the existence of insurgency in the northeast even after developmental efforts by the government? What are the steps taken by the government in attenuating this insurgency?**

**Q3. In your opinion, how well does India's IT Act strike a balance between preserving individual privacy and empowering law enforcement agencies to effectively combat cybercrime?**





## RAM TEMPLE



### Why in the News?

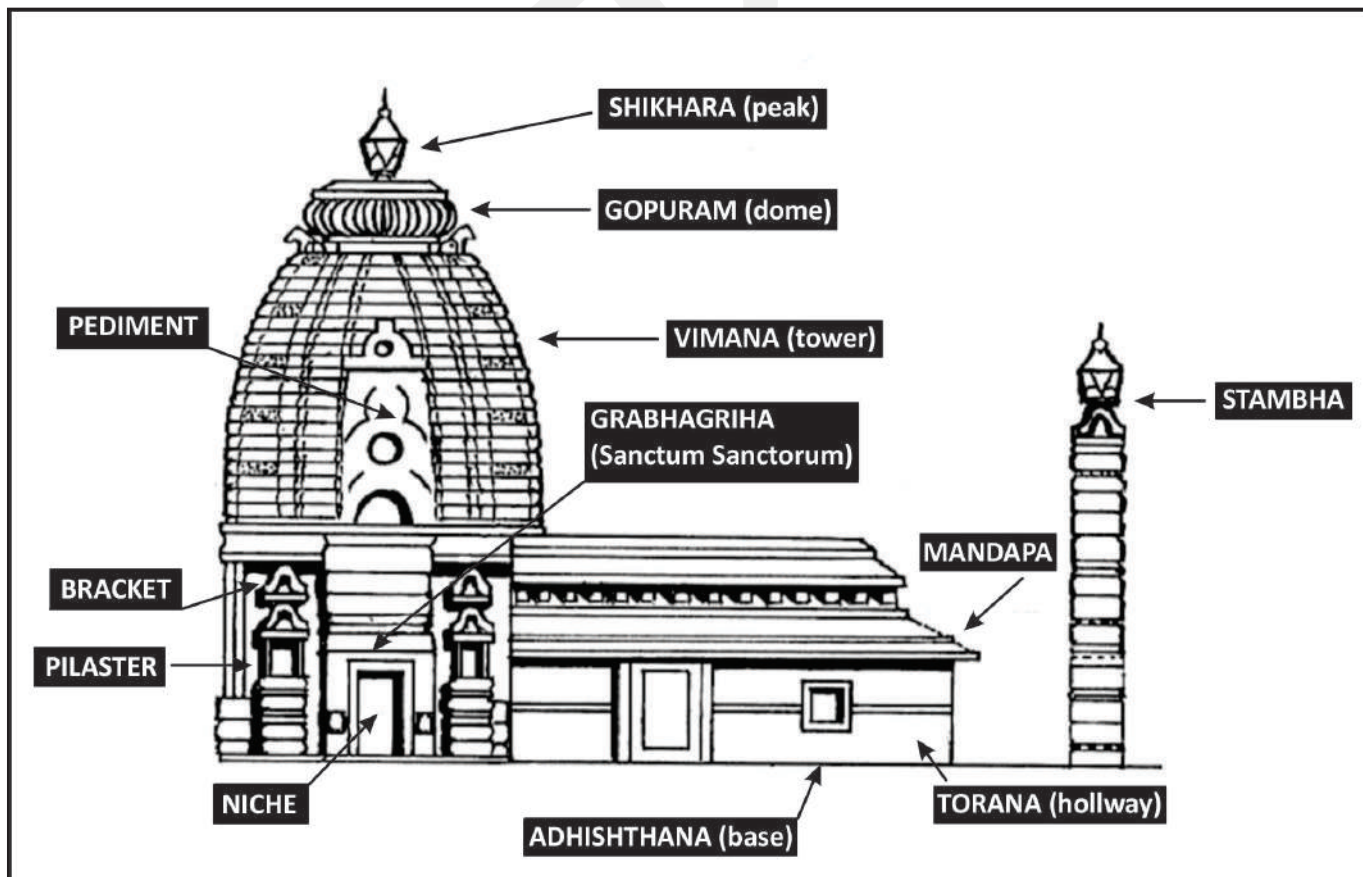
With the opening of the Ram temple in Ayodhya on January 22, 2024, a 200-year-old tale that had a significant influence on India's sociopolitical climate came to an end. The Nagara Style of temple architecture is used in the design of the Ram temple.

### About Timeline Of Ram Janmabhoomi Movement

- The campaign acquired impetus in the 19th century after the Marathas filed an appeal for control over Ayodhya, Kashi, and Mathura in **1751**. Court documents from **1822** describe a mosque on the site of Lord Ram's birth.
- Tensions rose in 1855 after a violent battle between Hindus and Muslims near the Babri Masjid, which resulted in the Hindus taking over Janmasthan.
- In 1949, the idol of Ram Lalla was placed in the mosque, generating calls for a large shrine.

### Legal Battles

- The **Vishwa Hindu Parishad (VHP)** launched a



**'liberation'** drive for Ram Janmabhoomi, Krishna Janmabhoomi, and the Vishwanath shrine in the 1980s.

- Legal fights occurred, and in 1986, the Babri Masjid's locks were released, allowing Hindus to pray.
- Significant events occurred in the years that followed, including the 1989 foundation-laying ceremony and the 1990 Rath Yatra organised by LK Advani, which sparked major riots.

### Demolition of The Babri Masjid

- On **December 6, 1992**, a mob razed the Babri Masjid, causing political implications and judicial actions.
- The Acquisition of Certain Areas at Ayodhya Act was passed by Parliament in 1993, authorising the government to take control of the disputed Ram Janmabhoomi-Babri Masjid site.
- In 2009, the **Liberhan Commission** highlighted the intentional character of the 1992 events.
- In 2019, the **Supreme Court** gave the contested site to Hindu petitioners for a Ram temple, while allocating land for a mosque nearby.

### Important Features of Ram Mandir

#### Main Complex

- Ram Mandir is a Hindu temple located in Ayodhya, Uttar Pradesh. It is located in Ram Janmabhoomi, Lord Rama's birthplace.
- The grand edifice was built entirely **without the use of iron or steel**. Stones were gathered from Rajasthan's Bansi Paharpur region.
- The temple complex, built in the ancient Nagara architecture, will measure **380** feet long from east to west, **250** feet wide, and **161** feet tall.
- Each of the floors of the temple will be 20 feet high, with 392 pillars and 44 gates.
- Around the main temple is a rectangular peripheral known as the **percota**, which is seen in temples in south India but not in north India.

- Images of **Lord Hanuman, other deities, peacocks, and flower patterns** have been carved into the stones, giving the edifice a divine appearance.
- More than 3,000 kilograms of flowers from over 20 species were utilised to embellish the enormous edifice.

#### Entrance

Ornate **statues of elephants, lions, Lord Hanuman, and Garuda** were erected at the temple's main gate earlier this month. These statues were likewise made from sandstone sourced from Bansi Paharpur.

#### What Is The Nagara Style Of Temple Architecture?

The **Nagara temple architecture** style arose in northern India about the 5th century CE, during the late Gupta dynasty. It appears in contrast with the Dravidian style of southern India, which originated around the same time.

- Nagara temples are erected on an elevated platform, having the Garbha Griha (sanctum sanctorum)—where the deity's idol rests—being the most sacred part of the temple.
- The **shikhara** (literally mountain peak') towers over the Garbha Griha and is the most distinguishing feature of Nagara-style temples.
- As the name implies, shikharas are man-made depictions of the natural and cosmological order as conceived in Hindu tradition.
- A typical Nagara-style temple also includes a circumambulatory corridor around the garbha griha, as well as one or more mandapas (halls) aligned with it. Elaborate murals and reliefs frequently cover the walls.

## HISTORY OF KADAMBAS

#### Why in the News?

Recently, a 10th century **Kadamba inscription** written in **Kannada and Sanskrit** was found in **Goa**. It

is in the literary style of the **Talangre inscription** of ancient ruler Jayasimha I. Thus the history of Kadambas holds significance in context of upcoming prelims.

### History of Kadambas:

- Kadambas of Goa were the *subordinates of Chalukyas of Kalyani*.
- The Chalukyan emperor **Tailapa II** who was a **Rashtrakuta** feudatory ruling from **Tardavadi** (Bijapur district) overthrew Karka II & *re-established the Chalukya rule* in the western Deccan and recovered most of the Chalukya empire.
- He appointed **Kadamba Shasthadeva** as **mahamandaleshwar** of Goa for his help in overthrowing the Rashtrakutas.
- Shashthadeva later conquered the city of **Chandrapur** (at the southern bank of Zuari river) from the Shilaharas and established the Goan Kadamba dynasty in **960 CE**.
- Later he conquered the port of **Gopakapattana** (*present Goa*) which served as capital.
- A Jain Sanskrit text, **Dvayāśraya** mentions the extension of his capital and that Port Gopakapattana had trade contacts with **Zanzibar, Bengal, Gujarat and Sri Lanka**.
- In **1310 CE** it was looted by Alauddin Khilji's general **Malik Kafur** enroute to capturing Dwarasamudra (Karnataka).

### Administration Of Kadambas:

- The Kings of Kadambas assumed titles like **Konkanadhipati, Saptakotisha Varaveera, Gopakapura varadhisva, and Panchamahashabda**.
- Administrative titles:
  - **Pradhana** – Prime minister
  - **Sarva karyakarta** – Chief secretary
  - **Tantrapala or Sabhakarya Sachiva** – Secretary of Council
  - **Rahasyadhikritha** – Private secretary

- **Dharma dhyaksha** – Chief justice
- **Rajjukas** – Revenue officers
- **Deshamatya** – Physician
- **Lekhakas** – Writers and scribes

- They introduced the **Kannada language** to Goa where it exercised a profound influence on the local Konkani language.
- The **Nagari, Kadamba, Halekannada and Goykanadi** scripts were also very popular.

### Prelims Perspective : Architecture Of Chalukyas:

- The Western Chalukyas (of Badami) **King Mangalesha (597-609 CE)** built **Badami caves** in the 6th century CE:
  - Mangalesha was son of Pulakesin 1 and brother of Kirtivarman 1 (Badami caves shows portrait of Kirtivarman 1)
  - It was built in **Red Sandstone hill**
  - It depicts various **Avatars of Vishnu**: Varaha, Narasimha etc
  - The largest cave depicts God Vishnu residing on Sheshanaga
  - Kadambas patronized **Shavism, Vishnavism** as well as gave *grants to Jains*
- **Pulakesin 2 (609-642 CE)** built temples of **Aihole (Ayyavole) temples** in 634 CE:
  - The **Lad khan temple** at Aihole is one of the earliest stone temple.
  - At Hucci, he built **Marigudi temple** for Goddess Durga (shows the spread of Shaktism).
  - The **Meguti Jain temple** shows early development of Mandapa style.
  - There are stucco pillars with big capital which are distinct from Nagara style.
- **Virupaksha Temple at Pattadakal** at bank of Malaprabha river:
  - It was built by **Queen Loka Mahadevi** to



commemorate victory of her husband Vikramaditya 2 at the conquest of Kanchipuram from Pallavas in 730 CE

- It shows early features of **Dravidian architecture**
- It has a kannada inscription which mentions the sculptor of the temple as **Tribhuvacharya**
- The Greek geographer Ptolemy who wrote "Geography of India" termed the place Patadakal as "**Pertigal**".
- In later stage of the development, the **Papanatha temple** shows Shikhara in "Rekha prasada" style thus reflecting "Nagara features".
- The Chalukyan inscriptions call the Architects as "**Sutradhars**"

## 7 ODISHA PRODUCTS GET GI TAG



### Why in the News?

Owing to their uniqueness within the state, seven goods from Odisha—from the embroidered Kapdaganda shawl to the Similipal Kai chutney prepared with red weaver ants—have been awarded the coveted Geographical Indication (GI) marking. Recently, a total of 17 items from various states have been assigned the GI tag.



### What is a GI tag?

- A geographical indicator, often known as a GI, is a label applied to goods that are known for

coming from a certain place and have characteristics or an image that is unique to that place.

- According to the Paris Convention for the safeguarding of Industrial Property, geographical indications are protected as a form of intellectual property.
- The WTO Declaration on Trade-Related Aspects of Intellectual Property Rights (TRIPS) governs and guides it.
- The Geographical Indications of Goods (Registration and Protection) Act, 1999 oversees the Geographical Indications certification process in India.
- Products related to agriculture, cuisine, wine and spirit drinks, handicrafts, and industry are generally classified according to their geographic origin.
- Famous goods like Pashmina Shawls, Basmati Rice, Kancheepuram Silk, and Darjeeling Tea are just a few that have been awarded GI tags.
- **Validity** : 1) A product can use its GI tag for 10 years after it was first issued. 2) It could still be extended for an additional ten years. 3) No one else may use a GI tag for a goods that is not made in the designated geographical region while the tag is valid. 4) By doing this, the original producer's rights are safeguarded and other parties are prevented from using the tag on their goods. 5) Customers are additionally reassured regarding the product's genuineness thanks to it.

### GI registration :

- The correct procedure for registering geographically indicated products involves submitting an application, being subject to preliminary investigation and scrutiny, publishing a show cause notice in the geographical indications magazine, receiving objections to registration, and finally registering the product.
- Applications may be made by any group of individuals, producers, organisations, or authorities created by or under the legislation. The applicant needs to speak on behalf of the producers.



### Advantages of GI Labeling :

- It assists in locating the authentic goods originating from a particular area.
- This contributes to the products' promotion and rise in consumption.
- By prohibiting others from using the GI tag on their products, it aids in defending the rights of the original creators.
- This aids in preserving the products' authenticity and quality.
- It aids in advancing the conventional knowledge and abilities related to the product's production.
- This contributes to the preservation of the area's cultural legacy.

### A brief overview of the seven products –

- **Kapdaganda shawl** : The shawl is a representation of the rich tribal heritage of the Dongria Kondh tribe. It was spun and beaded by the women of the tribe. The Dongria Kondh tribe is one of the particularly vulnerable tribal groups (PVTG).
- **Lanjia Saura Painting**: Also referred to as Idital, this painting is among the earliest examples of tribal art. The artworks are renowned for their symbolism, ritual associations, beauty, and elegance. The Lanjia Saura community, a PVTG that primarily resides in the Rayagada district, is the owner of the art form.
- **Koraput Kala Jeera Rice**: Known as the "Prince of Rice," this black-colored rice type is renowned for its flavour, texture, scent, and nutritional content. This rice variety has been conserved for over a millennium by tribal farmers in the Koraput region.
- **Similipal Kai Chutney**: In the Mayurbhanj region of Odisha, tribal households have an ancestral delicacy created from red weaver ants. The Similipal forests are home to the ants in the Mayurbhanj forests.
- **Kanteimundi Brinjal** : The entire plant, as well as the stems, of the Kanteimundi brinjal are re-

nowned for their sharp thorns. The plants may be cultivated with little pesticide because they are resistant to large insects.

- **Khajuri Guda**: Originating in the Gajapati area of Odisha, "Khajuri Guda" or jaggery is a natural sweetener made from date palm trees. Since jaggery is organic by nature, it is traditionally made in a trapezoidal form known as "Patali Gur."

### Although India is confronted with the following GI-Tag challenges:

- **State Conflicts**: As evidenced by the Rasogolla case, state-level disagreements persist on GI ownership.
- **Absence of Commercial Strategy**: Inadequate plans for utilising GIs in international trade.
- **Unauthorised Use**: When GIs are misused by unapproved parties, they deceive customers and harm legitimate producers.
- **IP Controversy Still Alive**: The topic of GI protection in intellectual property rights is still quite controversial.
- **Limited Organised activities**: Not much in the way of organised activities other than defining uniqueness.
- **Neglecting Quality Control**: Pay more attention to source indication than to quality control, as demonstrated by Alphonso Mango.
- **Marketing and Branding Gaps**: Poor branding, advertising, and promotion—Basmati rice is one example of this.

## PRELIMS QUESTIONS

### Q1. Consider the following statements regarding the Nagara style of Temple Architecture?

1. Vimana is the term for the assembly hall in front of the sanctum.
2. Amalaka in Nagar temple architecture is for the decorative ornamentation.
3. Gupta dynasty is often associated with the pro-

motion of Nagara temple architecture.

**How many of the above statements is/are correct?**

- (a) One
- (b) Two
- (c) Three
- (d) None

**Q2. Consider the following statements regarding Dravidian temple architecture:**

1. Vimana is the term for the assembly hall in front of the sanctum.
2. Amalaka in Dravidian temple architecture serves the purpose of decorative ornamentation.
3. Pallava dynasty is often associated with the promotion of Dravidian temple architecture.

**How many of the above statements is/are correct?**

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

**Q3. Consider the following pairs regarding various Tribal artforms found in India:**

1. Kalamkari paintings : Tamil Nadu
2. Kavad paintings : Rajasthan
3. Khovar paintings : Odisha
4. Saura paintings : Jharkhand

**How many of the above pairs is/are correctly matched?**

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All of the above

**Q4. A Geographical Indication (GI) tag ensures that:**

- (a) Products are available worldwide without restrictions
- (b) Only products from a specific region can use the designated name
- (c) Any producer can use the GI tag without permission
- (d) Consumers are not aware of the product's origin

**Q5. Consider the following statements about Geographical Indication (GI) Tags:**

1. GI Tags are exclusively granted to agricultural products.
2. The primary purpose of a GI Tag is to signify that a product has certain qualities, reputation, or characteristics unique to its place of origin.
3. Only individuals can apply for a GI Tag, not organizations or communities.
4. Once a product receives a GI Tag, it is protected only within the borders of the country that issued the tag.

**Which of the statements above is/are correct?**

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

**Q6: The Kings of which of the following dynasties in ancient India assumed pompous titles such as Konkanadhipati, Saptakotisha Varaveera, Gopakapura varadhishva, and Panchamahashabda?**

- (a) Vakatakas
- (b) Pallavas
- (c) Chalukyas
- (d) Kadambas

**Q7: Consider the following statements regarding the Chalukyas architecture & identify the incorrect statement:**

(a) The Badami caves were built under King Mangalesha in 6th century CE

(b) The Lad Khan temples was built by King Pulakesin 2 who was contemporary of Chinese traveller Xuanzang

(c) The Virupaksha temple at Pattadakal was built by Queen Loka Mahadevi in 8th century to commemorate victory of King Vikramaditya 2 over Palavas of Kanchi

(d) The Virupaksha temples are situated at the bank of the Godavari river

### ANSWERS

S. No.	Answers
1.	B
2.	B
3.	A
4.	B
5.	B

6.	D
7.	D

### MAINS QUESTIONS

**Q1.** Compare and contrast Nagara style temples with Dravidian style temples in terms of architecture, layout, and symbolism. Discuss the regional variations and the religious significance associated with each.

**Q2.** Analyze the role of the Gupta dynasty in the development and patronage of Nagara style architecture. How did the political and cultural milieu of the Gupta period contribute to architectural innovations?

**Q3.** Explain the role of the World Intellectual Property Organization (WIPO) in the protection of Geographical Indications (GIs). How does WIPO contribute to the global framework for safeguarding the rights associated with GIs?

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कोर्स की अवधि **1 वर्ष**

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