

# **UPSC MONTHLY CURRENT AFFAIRS MAGAZINE**

EDITION : JANUARY - 2024

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# Online Classroom Program

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Monday to Friday - 6:00 AM to 9:30 AM

Slots	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5	Batch 6	Batch 7
1st Feb to 6th March, 2023	Polity	Polity					
7th March to 10th April, 2023	Economics	Economics					
11th April to 15th May, 2023	Modern History + Post Independent India	Modern History + Post Independent India	Modern History + Post Independent India				
16th May to 16th June, 2023	Geography	Geography	Geography	Geography			
19th June to 21st July, 2023	Ethics + Governance	Polity	Polity	Polity	Polity		
24th July to 25th August, 2023	Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	Economics	Economics	Economics	Economics	
28th August to 3rd October, 2023	Environment & Ecology + Science & Technology + Compulsory Language Paper	Environment & Ecology + Science & Technology + Compulsory Language Paper	Environment & Ecology + Science & Technology + Compulsory Language Paper	Modern History + Post Independent India			
4th October to 7th November, 2023	International Relations + World History	Polity	Polity				
8th November to 12th December, 2023	Ancient India + Medieval India + Art & Culture	Geography	Geography	Geography			
13th December to 17th January, 2024	Internal Security + CSAT	Economics					
18th January to 21st February, 2024	Focus Prelims	Ethics + Governance	Ethics + Governance	Environment & Ecology + Science & Technology + Compulsory Language Paper			
22nd February to 27th March, 2024	Focus Prelims	Focus Prelims	Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	Ancient India + Medieval India + Art & Culture	Ancient India + Medieval India + Art & Culture	Ancient India + Medieval India + Art & Culture
28th March to 2nd May, 2024	Focus Prelims	International Relations + World History	International Relations + World History				
3rd May to 22nd May, 2024	Focus Prelims	CSAT					
23rd May to 2nd June, 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024
3rd June to 5th July, 2024	Ethics + Ethics + Ethics + Ethics + Governance Governance						Ethics + Governance
8th July to 9th August, 2024	Social Issues & Social Justice + Essay + Disaster Management Management					Social Issues & Social Justice + Essay + Disaster Management	
12th August to 27th August, 2024							Internal Security
1st September to 30th September, 2024	MAIN 2024						



# Online Classroom Program

# YEAR LONG TIMETABLE

(Evening Batch)

Monday to Friday - 5:00 PM to 8:30 PM

Slots	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5	Batch 6	Batch 7
1st Feb to 6th March, 2023	Modern History + Post Independent India						
7th March to 10th April, 2023	Geography	Geography					
11th April to 15th May, 2023	Polity	Polity	Polity				
16th May to 16th June, 2023	Economics	Economics	Economics	Economics			
19th June to 21st July, 2023	Ethics + Governance	Modern History + Post Independent India					
24th July to 25th August, 2023	Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	Geography	Geography	Geography	Geography	
28th August to 3rd October, 2023	International Relations + World History	International Relations + World History	International Relations + World History	Polity	Polity	Polity	Polity
4th October to 7th November, 2023	Internal Security + CSAT	Internal Security + CSAT	Internal Security + CSAT	Internal Security + CSAT	Economics	Economics	Economics
8th November to 12th December, 2023	Environment & Ecology + Science & Technology + Compulsory Language Paper	Modern History + Post Independent India	Modern History + Post Independent India				
13th December to 17th January, 2024	Ancient India + Medieval India + Art & Culture	Geography					
18th January to 21st February, 2024	Focus Prelims	Ethics + Governance	Ethics + Governance	Ethics + Governance	Internal Security + CSAT	Internal Security + CSAT	Internal Security + CSAT
22nd February to 27th March, 2024	Focus Prelims	Focus Prelims	Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	Environment & Ecology + Science & Technology + Compulsory Language Paper	Environment & Ecology + Science & Technology + Compulsory Language Paper
28th March to 2nd May, 2024	Focus Prelims	Ancient India + Medieval India + Art & Culture					
3rd May to 22nd May, 2024	Focus Prelims	Focus Prelims	Focus Prelims	International Relations	International Relations	International Relations	International Relations
23rd May to 2nd June, 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024	PRELIMS 2024
3rd June to 14th June, 2024				World History	World History	World History	World History
18th June to 22nd July, 2024	Ethics + Governance				Ethics + Governance	Ethics + Governance	
23rd July to 27th August, 2024					Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	
1st September to 30th September, 2024	MAIN 2024						

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# Online Classroom Program

# YEAR LONG TIMETABLE

(Weekend Batch)

Saturday - 12:00 PM to 8:00 PM | Sunday - 10 AM to 8 PM)

Slots	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5
February (04, 05, 11, 12, 18, 19, 25 & 26) + March (04, 05 & 11)	Economics				
March (12, 18, 19, 25 & 26) + April (01, 02, 08, 09, 15 &16)	Polity	Polity			
April (23, 29 & 30) + May (06, 07, 13, 14, 20, 21, 27 & 28)	Geography	Geography	Geography		
June (03, 04, 10, 11, 17, 18, 24 & 25) + July (01, 02 & 08)	Modern History + Post Independent				
July (09, 15, 16, 22, 23 & 30) + August (05, 06, 12, 13 & 19)	Environment & Ecology + Science & Technology + Compulsory Language Paper	Economics	Economics	Economics	Economics
August (20, 26 & 27) + September (02, 03, 09, 10, 16, 17, 23 & 24)	Ancient India + Medieval India + Art & Culture	Ancient India + Medieval India + Art & Culture	Polity	Polity	Polity
September (30) + October (01, 07, 08, 14, 15, 21, 22, 28 & 29) + November (04)	Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management	Geography	Geography
November (05, 11, 18, 19, 25 & 26) + December (02, 03, 09, 10 & 16)	Ethics + Governance	Ethics + Governance	Ethics + Governance	Ethics + Governance	Modern History + Post Independent
December (17, 23, 24, 30 & 31) + January '24 (06, 07, 13, 14, 20 & 21)	Internal Security + CSAT				
January '24 (27 & 28) + February '24 (03, 04, 10, 11, 17, 18, 24 & 25) + March '24 (02)	Focus Prelims	Environment & Ecology + Science & Technology + Compulsory Language Paper	Environment & Ecology + Science & Technology + Compulsory Language Paper	Environment & Ecology + Science & Technology + Compulsory Language Paper	Environment & Ecology + Science & Technology + Compulsory Language Paper
March '24 (03, 09, 10, 16, 17, 23, 24, 30 & 31) + April '24 (06 & 07)	Focus Prelims	Focus Prelims	Ancient India + Medieval India + Art & Culture	Ancient India + Medieval India + Art & Culture	Ancient India + Medieval India + Art & Culture
April '24 (13, 14, 20, 21, 27 & 28) + May '24 (04, 05, 11, 12 & 18)	International Relations + World History				
31st May to 11th June, 2024	PRELIMS 2024				
June '24 (01, 02, 08, 09, 15, 16, 22, 23, 29 & 30) + July (06)				Social Issues & Social Justice + Essay + Disaster Management	Social Issues & Social Justice + Essay + Disaster Management
July '24 (07, 13, 14, 20, 21, 27 & 28) + Aug '24 (03, 04, 10 & 11)					Ethics + Governance
1st September to 30th September, 2024	MAIN 2024	MAIN 2024	MAIN 2024	MAIN 2024	MAIN 2024

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# POLITY

#### 1. Indian Secularism

Syllabus: GS-2, Indian Constitution, Features of Indian Constitution

Mains: Indian Secularism and European Secularism

**Context:** Secularism is analyzed in the context of India by experts, drawing parallels with European secularism.

#### Three Commitments of Secularism

- Freedom of Religious Belief and Practice: Individuals are entitled to the freedom of religious beliefs and practices.
- Constitutional Principles: The principles embedded in the Constitution, devoid of religious references, such as equality, freedom of speech, and gender equality.
- Meta-commitment: In case of a conflict between the freedom of religious belief and constitutional principles, the latter should take precedence.

#### Gandhi's Notion of Secularism

- Mahatma Gandhi's perspective on secularism is explored as a remedy to the problems arising from religious majoritarianism in Europe.
- He viewed nationalism as synonymous with anti-imperialism and promoted an inclusive form of nationalism that rejected European models.

#### Secularisation vs. Secularism

- A distinction is drawn between secularisation, a social process involving the loss of belief in religious doctrines, and secularism, a political doctrine advocating the separation of religion from political influence.
- Secularism is not about societal changes but is concerned with keeping religious practices outside the direct realm of politics.

#### **Rejection of "Indian" Secularism**

- Experts challenge the commonly accepted notion of "Indian" secularism as an acceptance of all religions.
- They contend that what is often referred to as secularism is actually pluralism, highlighting the need for a nuanced understanding of these terms.

#### Issues

- Lack of clarity on the definition of secularism in the Indian context.
- Misconceptions surrounding the idea of "Indian" secularism.
- Potential conflicts between religious beliefs and constitutional principles.

#### Way Forward:

- Fostering educational initiatives to clarify the principles of secularism.
- Promoting open discussions and debates on the interpretation of secularism in the Indian context.
- Encouraging scholars to contribute diverse perspectives on the topic.

**Nut Graf:** The above insights on secularism in India provide a thought-provoking analysis, challenging prevalent notions and emphasizing the importance of understanding secularism as a political doctrine.

2. Remission



Syllabus: GS-2, Functioning of the Executive and the Judiciary

Mains: Bilkis Bano case and need for unbiased Remission policy

#### Introduction:

- The Bilkis Bano case witnessed the grant of remission to 11 gang-rape and murder convicts, leading to controversy and legal scrutiny.
- A recent Supreme Court judgment highlighted irregularities, including fraudulent behaviour by a petitioner and collusion with the Gujarat government, leading to the cancellation of remission orders for the convicts.

#### The Concept of Remission:

- Prison rules vary among states, determining reformative activities for prisoners to earn remission.
- Remission deducts earned days from the sentence, rooted in the idea that prisons should rehabilitate, not just punish.
- Life convicts must serve a minimum of 14 years before applying for remission, subject to committee evaluation based on specific factors outlined by the Supreme Court in the Laxman Naskar vs State of West Bengal case.

#### A Resilience That Prevailed:

- Legal Triumph: The recent Supreme Court decision is applauded for upholding the rule of law, acknowledging Bilkis Bano's struggle for justice.
- Impact: The decision stands as a deterrent against illegalities and collusion between authorities and convicts.

#### **Unchecked Discretion:**

- Transparency Concerns: Lack of transparency in committee formations and decision-making process.
- Arbitrary Power: Remission decisions prone to arbitrary exercise of power.
- Judicial Review Limitation: Limited grounds for challenging remission orders, due to lack of reasons guiding decisions.

#### Way Forward:

- Acknowledgement of the need to address normative questions surrounding remission policies.
- Exploration of whether certain offenders should be ineligible for remission based on crime categories or if conditions for remission should be strengthened.
- A call for meaningful and fair compliance with remission conditions instead of blanket denials, aiming to avoid a retributive punishment framework.

**Nut Graf:** The Bilkis Bano case, marked by controversial remission orders for 11 convicts, revealed unchecked discretion and transparency issues. The Supreme Court's intervention highlighted these concerns, sparking discussions on the concept of remission and the need for policy reforms.

#### 3. Speaker's disqualification powers

**Syllabus:** GS-2, Parliament and State Legislatures—Structure, Functioning, Conduct of Business, Powers & Privileges and Issues Arising out of these.

Mains: Politicisation of Speaker post in the context of Anti-defection

#### Context:

- Maharashtra Assembly Speaker Rahul Narwekar recently made a ruling on disqualification petitions within the Shiv Sena party.
- The petitions were filed by rival factions, raising concerns about the survival of the Eknath Shinde regime.

#### Supreme Court Judgement:

- A Constitution Bench of the Supreme Court delivered a final verdict on May 11, 2023.
- The Court criticized the Governor for calling a floor test and the Speaker for recognizing the Shinde faction's appointee as the party's whip.
- The court emphasized that no faction or group can claim to be the original political party to avoid disqualification on the grounds of defection.
- The Court highlighted the irrelevance of the percentage of members in each faction in determining the defence against disqualification.

#### **Speaker's Decision:**

- Speaker Narwekar's ruling contradicts key conclusions of the Supreme Court Bench.
- He found no grounds to disqualify members of the Eknath Shinde faction or the Uddhav B. Thackeray group.
- The ruling is primarily based on the argument that Shinde loyalists constituted the 'real political party' when the factions emerged.
- The Speaker declared Sunil Prabhu of the UBT faction as no longer the authorized whip and recognized Bharat Gogawale of the Shinde group as validly appointed.

#### Way Forward:

- There is a possibility that the Uddhav Thackeray group may approach the Supreme Court again to challenge the Speaker's ruling.
- The Speaker's reliance on political considerations and interpretations of the party constitution highlights the need for an independent authority in adjudicating defection disputes.
- As long as Speakers, with potential political affiliations, handle such disputes, there will always be concerns about biased rulings.
- The way forward may involve exploring reforms to ensure an impartial and independent process for adjudicating matters related to defection within political parties.

**Nut Graf:** The Maharashtra Assembly Speaker's recent ruling on Shiv Sena factions' disqualification petitions raises concerns about political influence. Contradicting a Supreme Court verdict, it underscores the need for an impartial process, emphasizing the potential impact of political considerations on such decisions.

#### 4. The long wait for Indian citizenship



Syllabus: GS-2, Government policies and interventions for the development of various sectors

Mains: Indian citizenship and the issue of refugees

**Context:** The Government of India considers all refugees in India "illegal migrants" and India does not have a law governing refugees. This means that Sri Lankan refugees, who came to India fearing violence and persecution during the civil war, which lasted from 1983 to 2009, are ineligible for Indian citizenship even if they have lived in India for over 30 years.

#### **Details:**

- Camps in Tamil Nadu house 58,457 refugees (as of March 31, 2023). There are also 33,375 refugees living outside these camps.
- Though not Indian citizens, they are beneficiaries of several welfare measures.
- The Tamil Nadu government has been giving them monetary benefits that are higher than what is allowed by the Centre.
- The refugees are also covered under the public distribution system and their children are given educational assistance. The present DMK government, which renamed the refugee camps as rehabilitation camps, has also undertaken a project to renovate them.
- The Central government favours voluntary repatriation and follows the principle of non-refoulement, the practice of not forcing refugees or asylum seekers to return to a country in which they are liable to be persecuted.
- Many Sri Lankan refugees are said to be eligible to acquire citizenship by naturalisation or registration. But a circular issued by the Union Ministry of Home Affairs to the Tamil Nadu government in 1986 advises the latter not to entertain applications from them for citizenship.
- In multiple treaties, India had promised citizenship to Indian-Origin Tamils (IOT) ~ 6 lakh people from Sri Lanka, along with their natural progeny. As many as 4,61,639 IOTs were repatriated to India from Sri Lanka after being given citizenship by the Indian High Commission in Sri Lanka, according to the Central government in February 2020.
- According to the provisional figures of a survey carried out by an official panel of the Tamil Nadu government among camp refugees in the State, there are 148 people, born in India before July 1, 1987, to parents of Sri Lankan nationality or mixed parentage; 566 persons born before December 3, 2004, to refugee-local couples in Tamil Nadu; and 35 persons born after December 3, 2004, to refugee-local couples in Tamil Nadu.

#### **Judicial stand**

#### • Ulaganathan vs Government of India (2019):

- Continuous period of statelessness of Indian-origin Tamils affects their fundamental right under Article 21.
- The Union Government has the power to grant relaxation in conferring citizenship.
- Abirami S. vs The Union of India (2022):
  - Principles of the CAA, 2019, would also apply to Sri Lankan Tamil refugees.

**Nut Graf:** The Citizenship (Amendment) Act, 2019, grants Indian citizenship to non-Muslims from Bangladesh, Pakistan and Afghanistan who came to India on or before December 31, 2014, but leaves out refugees from Sri Lanka, many of whom came to the country decades ago. "This is why the Union government should revisit the matter." There must be a comprehensive survey among the refugees about their ancestry, with a particular reference to IOTs or hill country Tamils.

#### 5. Understanding the Tenth Schedule



**Syllabus:** Indian Constitution—Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

#### Mains: Tenth Schedule

**Introduction:** The recent developments in the Maharashtra Assembly have once again brought attention to the Tenth Schedule, or the Anti-Defection Law, enacted in 1985. The law aimed to curb the destabilizing impact of legislators defecting from their parent parties, leading to political turmoil.

#### **Ambiguities Post Amendment:**

The deletion of para 3 in 2003, which allowed one-third of members to split without facing disqualification, has given rise to challenges. Instances of two-thirds of members practically defecting while claiming to be the original political party have created loopholes in the application of the law.

#### **Recent Case of Maharashtra Assembly:**

In Maharashtra, a faction led by Eknath Shinde claimed to be the legitimate Shiv Sena, challenging the Uddhav Balasaheb Thackeray (UBT) group. The Speaker's recognition of the Shinde faction as the real Shiv Sena, and subsequent refusal to disqualify its members, has raised questions about the neutrality of such decisions.

#### **Reforms Needed:**

- To address the complexities and ambiguities, substantial reforms are necessary.
- The Supreme Court's three-test formula, considering party aims, adherence to the constitution reflecting inner-party democracy, and majority in legislative and organizational wings, should be rigorously implemented.
- Given concerns about the Speaker's neutrality, there is a growing consensus for transferring the authority to decide on disqualifications to an independent tribunal.
- The Supreme Court's recommendation in K. M. Singh versus Speaker of Manipur (2020) emphasizes the need for an impartial body to handle such matters.
- Fundamental reform requires the institutionalization of internal democracy within political parties.
- Regular inner-party elections, monitored by the Election Commission, would bring transparency and accountability, addressing the root causes of defections.

**Conclusion:** As India grapples with the challenges posed by political defections, a comprehensive overhaul of the Anti-Defection Law is essential. The focus should be on strengthening democratic principles within political parties and ensuring impartial adjudication in cases of defection.

**Nut Graf:** The recent challenges in the Maharashtra Assembly have emphasized the need for substantial reforms in the Anti-Defection Law. It calls for measures such as implementing the Supreme Court's three-test formula and transferring disqualification authority to an independent tribunal to enhance democratic principles and impartial decision-making.

#### 6. Judicial contradiction in Delhi Chief Secretary's extension

Syllabus: GS-2, Issues and Challenges Pertaining to the Federal Structure

Mains: Issues with the Delhi Chief Secretary's extension and Supreme Court Judgement related to it

#### Introduction: Judicial Contradiction in Delhi Chief Secretary's Extension

- Overview of the Supreme Court's decision in November 2023 to extend Delhi Chief Secretary Naresh Kumar's tenure.
- Critique of the Court's approach as a form of judicial self-abnegation.

#### **Background: Chief Secretary's Allegations and Retirement**

- Chief Secretary Naresh Kumar is facing corruption and favouritism charges.
- Delhi Chief Minister Arvind Kejriwal's request for removal and the Chief Secretary's impending retirement on November 30, 2023.

#### Legal Context: Government of NCT of Delhi (Amendment) Act 2023

- The challenge to the Amendment Act by the Delhi government.
- The Act's purpose is to counter the Services judgment, giving control over Delhi's services to the elected government.

#### Supreme Court's Reversal: Carving an Exception for Chief Secretary

- Court's earlier stance in the Services judgment and the requirement of the Delhi government's recommendation for the Chief Secretary's extension.
- Court's reversal in the November 29, 2023 order allowing the Union Government to extend the Chief Secretary's tenure unilaterally.

#### Alleged Conflict of Interest: Ignoring Pre-conditions for Extension

- The Chief Secretary's tenure extension requires "full justification" and must be "in the public interest."
- Serious allegations of conflict of interest and the Chief Minister's recommendation for immediate removal.

#### Role of Chief Secretary: Evading Royappa Case

- The importance of the Chief Secretary's role is established in the Royappa case.
- Court's evasion of Royappa's application in the Chief Secretary matter and its cherry-picking of observations.

#### **Delhi Government's Point on Appointment: Collaborative Process**

- Delhi government's request for a collaborative process in the Chief Secretary's appointment.
- Supreme Court's erroneous interpretation of the Lt. Governor's sole discretion in making a reference to the Union Government.

#### Inconsistency with Services Judgment: Breakage of Accountability Chain

- Court's recognition in the Services judgment of Delhi government's control over services for democratic functioning.
- Failure to acknowledge the breakdown in accountability when the Chief Secretary loses the elected government's confidence.

**Nut Graf:** The Supreme Court's contradictory decision to extend Delhi Chief Secretary Naresh Kumar's tenure, amidst corruption allegations, raises concerns about judicial consistency and constitutional logic. The ruling diverges from prior judgments, compromising accountability and setting a precedent for future challenges to the court's stance.

#### 7. Post Office Act, its unbridled powers of interception

**Syllabus:** Functions and Responsibilities of the Union and the States

Mains: Provision of Post Office Bill and concern related to this

#### Introduction:

- President of India assents to the Post Office Bill, 2023 replacing the Indian Post Office Act, 1898.
- Opposition expresses concerns about unchecked interception powers in the new Act.

#### Interception under Central Acts:

- Telecommunications Bill, 2023 replaces the Indian Telegraph Act, 1885 and the Indian Wireless Telegraphy Act, 1933.
- Section 20(2) of the Telecommunication Act allows interception, similar to Section 5(2) of the Telegraph Act.
- Procedural safeguards in Section 7(2)(b) of the Act of 1885 now included in Section 20(2).
- Information Technology (IT) Act, 2000 (Section 69(1)) provides for a wider interception scope, not limited by 'public emergency' or 'public safety.'
- Procedural safeguards in the IT Act were notified in October 2009.

#### Historical Perspective on Phone Interception:

- Supreme Court lays down procedural safeguards in PUCL vs Union of India (1996) due to lack of rules under the Telegraph Act.
- Rule 419A notified in March 2007 replaces Court's directives and allows interception in emergent cases for a maximum of seven days.
- Similar safeguards were prescribed for interception under the IT Act in 2009.

#### **Concerns about Interception in Post Office Act:**

- Post Office Act lacks procedural safeguards, raising fears of misuse of interception powers.
- Post office deals with confidential items; the right to privacy is acknowledged by the Supreme Court.
- The right to communication is deemed a part of the right to privacy (Puttaswamy case, 2017).
- International conventions, including the International Covenant on Civil and Political Rights, 1966, emphasize privacy rights.

#### Need for Safeguards in Post Office Act:

- Removal of major conditions ('public emergency' and 'public safety') from the new Act increases interception powers.
- The lack of provision for procedural safeguards demands a fair and reasonable procedure.
- The vague term 'emergency' requires clarification based on existing rules.

#### **Consequences of Unauthorized Interception:**

- Telegraph Act (Section 26) and Telecommunication Act punish unauthorized interception.
- Lack of provisions for action against competent authorities exceeding or misusing interception powers.
- Destruction of interception documents after a period poses challenges in holding authorities accountable.
- Review committees are not bound to recommend disciplinary action for misuse, emphasizing the need for accountability.

#### **Conclusion:**

- Government intervention is needed to allay fears of misuse of the Post Office Act.
- Accountability of competent authorities is crucial for preventing unauthorised interception and safeguarding privacy rights.
- Constitutional courts may be the recourse for seeking relief, including compensation, in case of privacy rights violations.

**Nut Graf:** The Post Office Act, 2023, replacing the 1898 law, grants unbridled interception powers without procedural safeguards. Concerns arise over potential misuse, especially given the sensitive nature of post content. Accountability and clarity are crucial to protect privacy rights amid this legislative change.

8. The idea of one nation, one election is against federalism

Syllabus: GS-2, Issues and Challenges Pertaining to the Federal Structure

Mains: 'One Nation, One Election ' and concern with Federalism

#### Introduction:

- In September 2023, the Union Government formed the 'High-Level Committee on One Nation, One Election' under the leadership of former President Ramnath Kovind.
- The committee has met thrice, seeking opinions from national and State political parties and the public.
- Despite no fixed timeline, concerns arise due to its coincidence with the 2024 general elections.

#### **Potential Impact on Federalism:**

- The High-Level Committee's recommendations may impact the democratic setup and federal structure of India.
- Legal scrutiny becomes crucial, reminiscent of the U.S. Supreme Court's role in the Baker v. Carr case.

#### Feasibility and Expenditure:

- Proponents argue for cost reduction, citing the 2014 elections' ₹3,870 crore expenditure.
- Opponents question the logical and factual basis, emphasizing the value of free and fair elections.

#### Governance Downtime and Model Code of Conduct:

- Supporters claim reduced governance downtime by having elections once in five years.
- Critics argue that democratic processes and the Model Code of Conduct ensure a level playing field during elections.

#### Legal Concerns:

- S.R. Bommai v. Union of India (1994) asserted the States' independent constitutional existence, emphasizing their vital role.
- Altering the tenure of State Legislatures for a common election contradicts the Constitution and the Supreme Court's stance.

#### Language Bias and Consultation Process:

- The High-Level Committee's website, intended for stakeholder interaction, is available only in English and Hindi.
- This language bias raises concerns about bias, exclusion, and inequality in the consultation process.

#### Independence of the Election Commission:

- The Election Commission's apparent silence on the committee's process raises questions about its independence.
- Similar to the demonetization scenario, where the Reserve Bank of India was kept uninformed, the Election Commission appears to be a passive observer.

#### Possibility of Halting One Nation, One Election:

- Unlike the U.K. where Parliament is supreme, India's constitutional structure grants broad judicial review powers to higher courts.
- A constitutional showdown is anticipated, questioning whether the Supreme Court will intervene to preserve the constitutional architecture.

**Conclusion:** The stage is set for a constitutional showdown, and the Supreme Court's involvement appears inevitable to preserve India's constitutional framework.

**Nut Graf:** The Union Government's push for 'One Nation, One Election' faces scrutiny for potential impacts on federalism and legal concerns. The debate over feasibility, governance downtime, language bias, and the Election Commission's role sets the stage for a constitutional showdown, with the Supreme Court expected to play a crucial role.

#### 9. Limits and borders

Syllabus: GS-2, Issues and Challenges Pertaining to the Federal Structure

Mains: Reason of Federal dispute and possible remedies

#### Introduction: Lack of Effective Consultation

- **Litigation origin:** The territorial jurisdiction dispute involving the Border Security Force (BSF) in Punjab results from insufficient consultation between central and state governments.
- **Constitutional challenge:** Punjab files a suit under Article 131, challenging the Union government's decision to expand the BSF's operational jurisdiction from 15 km to 50 km.
- **Federal principles:** Punjab views the move as breaching federal principles and encroaching on the law and order powers of the state police.
- **Similar stance:** West Bengal shares Punjab's concerns, passing resolutions in their Assemblies against the BSF's expansion.

#### Supreme Court's Intervention:

- **Significance:** The Supreme Court's decision to examine issues arising from the BSF's expanded operations gains importance.
- October 2021 notification: The Centre issues a notification under the BSF Act, standardizing operational jurisdiction across states.
- **Varying changes:** Operational distance increased to 50 km in Punjab, West Bengal, and Assam; reduced from 80 km to 50 km in Gujarat; unchanged at 50 km in Rajasthan.
- **Government rationale:** The Union government cites increased jurisdiction as aiding the BSF in effectively carrying out border patrol duties.

#### **Constitutional Responsibilities:**

- **State powers:** State governments are constitutionally responsible for maintaining public order and exercising police powers.
- Limited BSF role: BSF focuses on preventing trans-border crimes, lacking powers for investigation or prosecution; it hands over offenders and seized contraband to local police.
- **Coordination:** BSF and police typically work in close coordination to avoid jurisdictional conflicts.
- **Expanded jurisdiction:** Questions were raised about whether the Centre's notification encroaches upon the state government's domain.

#### Justification for Expanded Jurisdiction:

- Border patrol duty: BSF's primary role is preventing unauthorized entry or exit from Indian territory.
- Search and seizures: Expanded jurisdiction argued to authorise BSF for more effective searches and seizures, particularly for offenders entering deep into the country.
- **Requirement for justification:** Emphasis on the need for strong reasons supporting the expansion of jurisdiction for any central force.

## Supreme Court Questions:

- **Encroachment concerns:** Supreme Court to examine if the Centre's notification encroaches upon the State government's domain.
- **Factors for consideration:** Exploration of the factors determining the "local limits of areas adjoining the borders of India" in the context of expanded BSF jurisdiction.

**Nut Graf:** The dispute over Border Security Force (BSF) jurisdiction in Punjab, triggering litigation, underscores the importance of effective central-state consultation. The Supreme Court's intervention raises questions on constitutional encroachment and the justification for expanding BSF's operational boundaries amid concerns about federal principles.

#### 10. Opposition MPs, parliamentary disruptions

**Syllabus:** Parliament and State Legislatures, Structure, Functioning, Conduct of Business, Powers & Privileges

#### Mains: Issue of parliamentary disruptions

**Context:** The winter session of Parliament in 2023 witnessed a significant development as a considerable number of Opposition Members of Parliament (MPs) were suspended. The suspension, amounting to 141 lawmakers, raised concerns about the role of the Opposition and the impact on parliamentary proceedings. This incident sheds light on the delicate balance between protests, democratic governance, and the need for healthy debates in the political landscape.

#### Importance of Protests in Democratic Governance

- **Democratic Values:** Protests and dissent are integral to democratic governance, reflecting the vibrancy of political discourse and the exercise of individual and collective rights.
- **Opposition's Collaborative Role:** Former Prime Minister Atal Bihari Vajpayee's emphasis on the collaborative role of the Opposition underscores the importance of healthy debates and dissent in shaping informed decision-making and inclusive legislation.

#### Track Record of Suspended MPs

- Shashi Tharoor: A three-time Lok Sabha MP, Tharoor's notable contributions include a high attendance record, active participation in debates, and the introduction of crucial Private Member's Bills.
- **S. Jothimani:** As a Lok Sabha member from Tamil Nadu, Jothimani has actively addressed various topics, raised numerous questions, and introduced Bills on significant issues despite being a newcomer.
- Manoj Kumar Jha: The Rajya Sabha MP from Bihar boasts a high participation rate, significant contributions through questions and Private Member's Bills, and recognition as the best debutant parliamentarian.
- **Supriya Sule:** With a high attendance record, Sule, a Nationalist Congress Party MP from Maharashtra, has actively engaged in debates and introduced Bills on important issues like census amendment and rights of widows.
- Gaurav Gogoi: The Lok Sabha MP from Assam, awarded the Best Parliamentarian Award, has actively participated in debates and presented Private Member's Bills on environmental concerns and company regulations.
- Vandana Hemant Chavan: A Rajya Sabha MP from Maharashtra, Chavan's active involvement in debates, extensive questioning, and introduction of Private Member's Bills on social issues highlight her commitment.
- **Derek O'Brien:** The Rajya Sabha MP from West Bengal, with a focus on education, digital literacy, and public health, exemplifies active parliamentary engagement through debates and Private Member Bills.



• **Kunwar Danish Ali:** Despite a recent suspension, the Lok Sabha MP from Uttar Pradesh has shown high attendance, active participation in debates, and the introduction of Bills, showcasing commitment to legislative duties.

#### Issues

- **Suppression of Dissent:** The suspension of MPs for causing disruptions raises concerns about the suppression of dissent, potentially hindering the Opposition's crucial role in shaping legislative discourse.
- **Impact on Governance:** Stifling dissent challenges democratic norms, prompting a reevaluation of the delicate balance between government and Opposition collaboration for effective governance.

#### Significance of Opposition's Role

- Shaping Legislative Discourse: Committed MPs underscore the indispensable role of the Opposition in shaping India's legislative discourse through active participation, questions, and Bills.
- **Need for Diverse Voices:** Dissent highlights the importance of diverse voices in the political landscape, contributing to the nation's future through meaningful parliamentary engagement.

#### Solutions

- Reevaluation of Democratic Norms: The suspension incident prompts a reevaluation of democratic norms, emphasizing the need for an inclusive and open political environment that accommodates dissent.
- **Government-Opposition Collaboration:** Effective governance requires collaborative efforts between the government and the Opposition, transcending political divides for the greater good of the nation.

**Nut Graf:** The suspension of Opposition MPs during the winter session of Parliament raises pertinent questions about democratic values, the role of dissent, and the delicate balance needed for effective governance. The track record of committed MPs highlights their significant contributions to legislative discourse.

#### 11. What is Ladakh's demand on Gilgit-Baltistan?

Syllabus: Formal & Informal associations and their role in the polity

Prelims: Places in Ladakh

Mains: Issues in Ladakh's demand on Gilgit-Baltistan

**Context:** Ladakh's socio-political conglomerates, the Leh Apex Body (LAB) and the Kargil Democratic Alliance (KDA) have presented fresh demands to the Ministry of Home Affairs (MHA) as part of an ongoing dialogue with the Centre. Among these demands is the extension of Ladakh's territorial control up to Gilgit-Baltistan in Pakistan Occupied Kashmir. This move has historical and strategic implications, and it adds to the broader demands for Statehood, special status, and exclusive rights.

#### Issues

- 1. Territorial Control Extension
  - **Historical Perspective:** Ladakh's demand to extend territorial control up to Gilgit-Baltistan stems from the fact that prior to 1947, the Ladakh district included the Gilgit-Baltistan area, now occupied by Pakistan.
  - **Strategic Importance:** Ladakh argues that extending control to Gilgit-Baltistan would enhance stability in the region and strengthen foreign policy, leveraging local knowledge of the harsh terrain in military and logistic operations.

- 2. Statehood and Legislative Representation
  - Absence of Legislature: Ladakh, as a Union Territory without a legislature, seeks the restoration of Statehood and legislative representation, emphasizing its historical participation in the J&K Assembly and legislative council.
  - **Special Status:** The demand for special status under the Sixth Schedule and Article 371 aims to protect Ladakh's ecology and maintain control over recruitment.
- 3. Exclusive Rights and Recruitment
  - Ladakh Public Service Commission: Proposing the establishment of a Ladakh Public Service Commission for gazetted job recruitment.
  - Local Residency Criterion: Insisting that Ladakh resident certificates should be the sole basis for applying for jobs in the region, safeguarding exclusive rights over recruitment.

#### Significance

- 1. Historical Context
  - **Pre-Partition Legacy:** Ladakh's connection with Gilgit-Baltistan has historical roots, and this demand reflects a desire to reclaim lost territories.
- 2. Strategic and Security Implications
  - Line of Actual Control (LAC): Ladakh shares a long and volatile LAC with China, and the demand to include Gilgit-Baltistan is seen as crucial for regional stability and military operations.
- 3. Political Dynamics
  - Unique Socio-Political Landscape: Ladakh's diverse demographics, with Buddhist dominance in Leh and Shia Muslim majority in Kargil, add complexity to its demands and political aspirations.

#### Solutions

- 1. Structured Talks and Committees
  - **Engagement:** The Centre formed committees in 2022 and 2024 to engage with LAB and KDA, acknowledging the need for a comprehensive solution.
  - Holistic Approach: Addressing language, culture, and land conservation issues in Ladakh to provide a balanced resolution.
- 2. Incorporation of Local Feedback
  - **Local Involvement:** Inclusion of the Ladakh Lieutenant Governor and members from KDA and LAB in high-powered committees ensures the incorporation of local perspectives.
- 3. Consideration of Strategic and Historical Factors
  - Strategic Balance: Recognizing Ladakh's importance in India's strategic interests and considering the historical context of its demands.

#### Strategic importance of G-B

- GB is home to some of the world's most important and contentious strategic points capable of creating unremitting wars.
- The region holds extreme volatility and if subjected to desuetude can cause a ruckus in the entire regions of South Asia, Central Asia and China, ultimately affecting the entire world.
- The mountain province consists of 3 core divisions: Gilgit, Baltistan and Diamer.
- This region is further divided into 10 districts along with its Shaksgam valley which was gifted to China by occupier Pakistan in the 1963 border agreement of 5,180 square km.

#### **Economic Potential of G-B**

- Home to valuable earthy resources, GB is rich in mineral deposits.
- These include metallic, non-metallic, energy minerals, precious stones and different rocks of industrial use.
- The southern areas of this region have substantial deposits of nickel, lead, copper and zircon.
- In its northern regions, it contains deposits of iron, silver, gold, garnet and topaz.
- Almost all of its mining potential is untapped and capable of generating ample wealth.

**Nut Graf:** Ladakh's demands, especially the call for territorial control extension up to Gilgit-Baltistan, reflect a complex interplay of historical, strategic, and socio-political factors.

# ECONOMY

#### 1. India's 1991 crisis & RBI Governor's role

**Syllabus:** Effects of liberalisation on the economy (post-1991 changes), changes in industrial policy and their effects on industrial growth.

Mains: Balance of Payments Crisis of 1991 and the Economic Reforms.

Prelims: About Balance of Payments Crisis of 1991

**Context:** S Venkitaramanan, former RBI Governor, passed away. His pivotal role during India's 1990-91 balance of payments crisis, employing gold pledging and import compression, shaped the nation's economic trajectory.

#### Introduction

• S. Venkitaramanan, the former Governor of the Reserve Bank of India (RBI) from December 1990 to December 1992, recently passed away. His tenure witnessed pivotal moments in India's economic history, highlighting his role as a statesman dedicated to the country's welfare.

#### **Balance of Payments Crisis (1990-91)**

- In the late 1990s, India faced a severe balance of payments crisis due to reduced remittances and increased oil prices after the invasion of Kuwait.
- The RBI, under Venkitaramanan's leadership, played a crucial role by pledging India's gold to secure hard currency loans. This move helped India meet external payment obligations and avoid default.
- Gold was sold and pledged, raising funds, and contributing to economic stability during a challenging period.

#### Economic Reforms and Import Compression

- S Venkitaramanan initiated a program of import compression, increasing cash margins on imports to address the balance of payments crisis.
- The cash margin was raised fourfold between October 1990 and April 1991, coupled with other measures to control imports.
- This strategy, implemented before the economic reforms of 1991, significantly reduced the current account deficit from 3 percent of GDP in 1990-91 to 0.3 percent in 1991-92.

#### **Role in Navigating the Crisis**

- The RBI's official history acknowledges Venkitaramanan's leadership during the troubled times, describing the crisis as "successfully resolved."
- The immediate improvement in the balance of payments, largely attributed to import compression, laid the groundwork for subsequent economic reforms.

#### **Post-Crisis Economic Reforms**

- After overcoming the balance of payments crisis, Venkitaramanan's contributions were overshadowed by the economic reforms led by Dr. Manmohan Singh's government.
- The focus on economic restructuring and the rupee devaluation became more visible, relegating the earlier efforts to relative obscurity.

#### Legacy and Openness

- Venkitaramanan's legacy includes his openness to diverse opinions. He invited economists, including critics, to discuss measures taken during the balance of payments crisis.
- His commitment to intellectual resources led to the establishment of the Development Research Group within the RBI, fostering interaction between economists and the central bank.

**NutGraf:** S. Venkitaramanan, the late RBI Governor, navigated India through the 1990-91 balance of payments crisis by pledging gold and implementing import compression, laying the foundation for subsequent economic reforms.

#### 2. The dispute on India's debt burden

**Syllabus:** Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Mains: What impact will the long-term sustainability of India's debts have on the country's growth?

**Context:** The International Monetary Fund (IMF) has recently expressed concerns about the long-term sustainability of India's debts.

#### Key findings:

- The IMF is concerned that India's government debt could reach 100% of GDP by 2028 under certain circumstances. This could be due to the need for significant investment in climate change mitigation and resilience.
- The IMF suggests that India needs to find new and concessional sources of financing, as well as increase private sector investment and implement carbon pricing.
- High debt levels can hinder development by limiting access to financing, raising borrowing costs, and causing currency devaluations.
- Developing countries like India face a higher burden of debt compared to developed countries due to higher interest rates.
- Despite being the fastest-growing major economy, India's credit rating has remained unchanged at 'BBB-' since 2006, primarily attributed to weak fiscal performance and burdensome debt.
- India's public debt-to-GDP ratio is higher than the targets set by the Fiscal Responsibility and Budget Management Act.
- There are concerns about fiscal slippage in FY24 due to higher expenditure on subsidies and employment guarantee schemes.

According to the **Fiscal Responsibility and Budget Management Act**, debt to GDP targets for the Centre, States and their combined accounts at 40%, 20% and 60%, respectively. The Union government's debt was ₹155.6 trillion, or 57.1% of GDP, at the end of March 2023 and the debt of State governments was about 28% of GDP.

#### **Issues:**

- Managing public debt effectively
- Enhancing credit ratings
- Sticking to the fiscal correction path, especially in an election year

#### Way Forward

The way forward for India involves a multi-faceted approach to address the challenges highlighted in the article. Here are some key considerations:

#### • Prudent Debt Management:

- Implement measures for prudent debt management to ensure the long-term sustainability of India's debts.
- Explore concessional sources of financing and encourage private sector investment.
- Develop and implement carbon pricing mechanisms to support climate change mitigation efforts.

#### • Enhancing Credit Ratings:

- Focus on improving fiscal performance to enhance India's credit ratings.
- Work on reducing the debt-to-GDP ratio to align with the targets specified by the Fiscal Responsibility and Budget Management Act.

 Strengthen economic fundamentals and address concerns raised by rating agencies regarding weak fiscal performance and low per capita income.

#### • Fiscal Responsibility:

- Exercise caution in managing fiscal policies, especially during election years, to avoid fiscal slippage.
- Prioritize efficient and targeted spending to prevent unnecessary strain on public finances.

#### • Transparent Reporting:

- Maintain transparency in reporting government finances, ensuring accurate and timely disclosure of fiscal information.
- Address any concerns or discrepancies raised by international organizations to build credibility in financial reporting.
- Diversification of Funding Sources:
  - Explore diverse funding sources beyond traditional borrowing to reduce reliance on debt.
  - Encourage investments in key sectors, fostering economic growth and reducing the need for excessive borrowing.

#### • Social Welfare Programs:

• Evaluate the efficiency of social welfare programs, such as employment guarantee schemes and subsidies, to ensure they are cost-effective and contribute to sustainable development.

#### • Economic Reforms:

- Continue with economic reforms that promote inclusive growth, job creation, and improved livelihoods.
- Address structural issues that may hinder economic progress, contributing to a more favourable environment for investment.

#### International Collaboration:

- Collaborate with international organizations, such as the IMF, to explore potential solutions and best practices for managing debt and promoting economic stability.
- Leverage global partnerships for financial assistance and expertise in addressing specific challenges.

#### • Climate Change Mitigation:

- Develop comprehensive strategies for achieving climate change mitigation targets, ensuring alignment with sustainable development goals.
- Seek international support and funding for climate-related initiatives.

By addressing these aspects, India can work towards ensuring fiscal sustainability, enhancing creditworthiness, and fostering economic resilience in the face of global challenges.

**Nut Gruf:** The IMF expresses concerns about India's long-term debt sustainability and reclassifies its exchange rate regime. The challenges include managing public debt, improving credit ratings, and navigating fiscal concerns, particularly in an election year, to avoid worst-case scenarios. The article emphasizes prudent debt management, transparent reporting, and a diversified approach to funding for economic stability.

#### 3. Understanding the EU's carbon border tax

Syllabus: Development and Employment

Mains: EU's Carbon Border Adjustment Mechanism and Impact on India

**Context:** EU's policy taxing carbon-intensive imports starting from 2026, aims to reduce emissions by 55% by 2030.

#### About Carbon Border Adjustment Mechanism (CBAM):

- **Objective:** To prevent carbon leakage, where EU industries move to countries with lax environmental regulations, by imposing import duties on carbon-intensive products.
- **Mechanism:** Similar to the EU's Emission Trading System (ETS), tracking and taxing embedded GHG emissions in imports.

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- **Phases:** Transitional phase (Oct 2023-Dec 2025) for reporting emissions without financial obligations. The definitive phase (from Jan 2026) requires importers to surrender CBAM certificates corresponding to emissions.

#### India's Step to Tackle Carbon:

- **CCTS Introduction:** India amended the Energy Conservation Act in 2022, introducing the Carbon Credit Trading System (CCTS) to incentivize emission reduction and boost clean energy investments.
- **Green Credit Programme:** A voluntary market-based mechanism to encourage actions exceeding carbon reduction mandates, notified by the Ministry of Environment in 2023.

#### India's Options:

- **Challenges Faced:** Potential adverse impact on key sectors like steel, with 27% of exports to the EU in 2022.
- Possible Actions:
  - Challenge CBAM's violation of differentiated responsibilities under the Paris Agreement.
  - Suggest the EU reinvest collected tax funds into green technologies in affected countries.
  - Actively negotiate with the EU, already initiating a challenge before the World Trade Organization under special treatment provisions.
- Considerations: EU's oversight of other factors affecting production shift, like labour availability and production expansion in other regions.
- **U.K.'s Influence:** The U.K.'s plan to enforce its own CBAM by 2027 poses a significant challenge to India's exports, urging swift formulation of India's carbon taxation measures aligning with the Paris Agreement principles.

**Nut Graf:** The European Union's Carbon Border Adjustment Mechanism (CBAM) aims to tax carbonintensive imports by 2026, impacting India's key sectors. India introduced the Carbon Credit Trading System (CCTS) and faces challenges while exploring options to align with global environmental standards.

#### 4. Exploring India's diverse cultural heritage through GI tags

Syllabus: Inclusive Growth and issues arising from it; Growth, Development and Employment

Mains: GI tags and their importance in Economic Development

#### Introduction:

- Over 500 products across all States have received Geographical Indications (GI) tags.
- GI tags signify specific geographical origins and unique qualities or reputations.

#### What is a GI tag?

- A sign used on products with a specific geographical origin and distinctive qualities.
- Examples include Tirupati laddus and Nagpur oranges, both having GI tags.
  - Tirumala Tirupati Devsthanam emphasised the highest quality raw materials for laddu production.
    - Nagpur orange farmers benefited from branding under the GI tag.

#### **Application Process:**

- Any trader's body, association, or organization can apply for a GI tag.
- Applicants must prove the uniqueness of the item with historical records and detailed production processes.
- GI tags are not limited to popular products; there are numerous tags across various States.

## **Diversity in GI Tags:**

- Raw materials for products do not necessarily come from the region unless it's an agricultural tag.
- Examples include Banarasi paan leaves from Bihar, West Bengal, or Odisha, and Kancheepuram saree silk from Karnataka.
- Over 500 GI tags cover 34 classes of products, ranging from chemicals to handicrafts.

# **Categories and Dominance:**

- GI registry classifies products into five major categories.
- Handicrafts dominate with over half the GI tags, showcasing skilled artisans' craftsmanship.
- Classes include chemicals, foodstuff, handicrafts, musical instruments, firearms, and locomotives.

# **GI Tags Across States:**

- Every Indian state has at least one GI tag, representing unique cultural items.
- GI tags are not indicative of cultural richness; more registrations might be due to a higher number of items.

# State-wise Breakdown:

- Tamil Nadu excels with 61 GI tags, covering diverse products.
- Uttar Pradesh follows with 56 GI tags, including Agra's leather footwear, Kanpur's saddles, and Lucknow's Chikankari.
- Karnataka ranks third with 48 GI tags, Kerala fourth with 39, and Maharashtra fifth with 35.

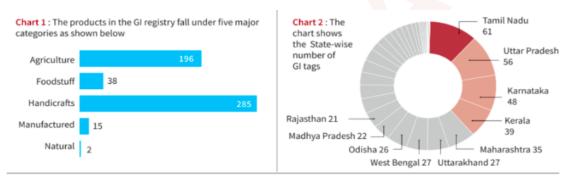
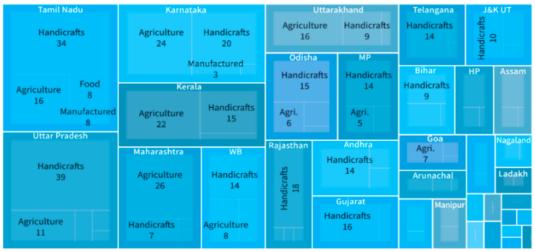


Chart 3 : The State-wise number of GI tags across the five major categories



# Source: The Hindu

# **Unique Cultural Centres:**

- Banaras offers 11 unique crafts and agricultural items, including the famous Banarasi paan.
- Mysuru, historically ruled by the Wodeyars, presents 10 unique items, including Mysore mallige (jasmine) and sandalwood soap.
- Thanjavur in Tamil Nadu boasts five GI tags, featuring paintings and iconic bobblehead dolls.



**Nut Graf:** India's rich cultural tapestry is unveiled through over 500 Geographical Indication (GI) tags, recognizing unique products across states. From iconic handicrafts to agricultural gems, the tags spotlight diverse traditions, showcasing the nation's heritage.

#### 5. Why is aviation safety under scrutiny

GS-;Categories: GS-III, Economy

Syllabus: Infrastructure- Airports

Mains: Issues in aviation safety

**Context:** Recent aviation incidents, particularly involving a Japan Airlines Airbus A350-900 and an Alaska Airlines Boeing 737 MAX 9, have brought the issue of aviation safety under intense media scrutiny. These incidents have triggered a renewed focus on safety measures, advances in aircraft manufacturing technology, crew responses, and a specific examination of the Boeing 737 MAX 9.

#### Issues

#### Japan Airlines Airbus A350-900 Incident:

- **Date and Details:** January 2, collision with a Japan Coast Guard De Havilland Canada Dash 8 after landing, resulting in a fire.
- **Casualties:** Five fatalities on the Coast Guard plane; all 367 passengers and 12 crew on the JAL aircraft escaped.
- Alaska Airlines Boeing 737 MAX 9 Incident:
  - **Date and Details:** January 5, mid-air depressurization caused by a blown-out window panel 'door plug.'
  - **Casualties:** No major passenger injuries reported.
- Boeing 737 MAX 9 Worldwide Scrutiny:
  - **FAA Oversight:** On January 12, the Federal Aviation Administration (FAA) announced increased oversight on Boeing, focusing on the cabin pressure control system.
- Boeing CEO's Response: Boeing CEO Dave Calhoun acknowledged mistakes and committed to addressing the issues.
- **Grounding Decision:** The FAA grounded every Boeing 737 MAX 9 with a plug door pending a thorough review.

#### Significance

- Advances in Aircraft Manufacturing Technology:
  - **Composite Materials:** Airbus A350 and Boeing 787 and 777 incorporate advanced composite materials for durability, strength, and reduced weight.
  - **Real-world Test:** The JAL Airbus fire served as a real-world test for the A350's composite structure, providing valuable technical insights.
- Crew Training and Response:
  - JAL Airbus Incident: Despite malfunctioning public announcement systems, the crew successfully evacuated all passengers through emergency exits, highlighting the importance of crew training.
  - **Boeing CEO's Commitment:** Boeing's commitment to addressing mistakes and the FAA's increased oversight emphasize the role of crew training in addressing safety concerns.
- Safety Improvements and Standards:
  - FAA-Governed Improvements: Improved flammability of seat cushions, emergency escape path marking, lavatory safety measures, and improved interior materials are part of safety improvements overseen by the FAA.
  - **Aircraft Certification:** Stringent aircraft certification requirements ensure safety standards are met, and evacuation tests, such as the 90-second rule, apply to all aircraft.

# Wayforward:

• **Regulatory Vigilance:** Continued vigilance and oversight by aviation regulatory bodies, such as the FAA, are crucial for identifying and addressing potential safety concerns promptly.

## Crew Training and Emergency Preparedness:

- **Regular Exercises:** Airlines should prioritize stringent crew emergency training, including written tests and regular exercises, as demonstrated by Japan Airlines.
- **Response Time:** Crews must be well-prepared to handle emergency situations promptly, ensuring the safety of passengers.
- Technological Advancements and Research:
  - **Ongoing Research:** Continued research into materials and technologies used in aircraft manufacturing is essential for enhancing safety measures.
  - **Industry Collaboration:** Collaboration between aircraft manufacturers, regulators, and researchers can contribute to advancements in safety technologies.

## International Civil Aviation Organisation

- ICAO is a United Nations (UN) specialized agency, established in 1944, which laid the foundation for the standards and procedures for peaceful global air navigation.
- The Convention on International Civil Aviation was signed on 7th December 1944 in Chicago (hence called Chicago Convention 1944).
- It established the core principles permitting international transport by air, and also led to the creation of the ICAO.
- It covers a wide range of issues, including the rights of aircraft in international airspace, the registration of aircraft, safety standards, air traffic control, and environmental protection.
- One of the objectives of ICAO is to foster the planning and development of international air transport so as to ensure the safe and orderly growth of international civil aviation throughout the world. India is among its 193 members.
- It is headquartered in Montreal, Canada.

**Nut Graf:** The recent aviation incidents underscore the critical importance of maintaining and advancing aviation safety standards. Advances in aircraft manufacturing technology, crew training, and regulatory oversight play pivotal roles in ensuring the safety of air travel.

#### 6. Prohibitive Gains

Syllabus: Transport and Marketing of Agricultural Produce and Issues and Related Constraints

Mains: Recent rise of Food Prices: Causes, consequences and way forward

#### Introduction: Prohibitive Gains in Food Prices

- In December, inflation measured by the Consumer Price Index reached a four-month high, impacting the already weak consumption of goods.
- Consumer Food Price Index recorded an 83 basis points acceleration from the previous month, reaching 9.53%.
- Cereal prices, especially rice, wheat, and coarser cereals, contributed significantly to the surge in food prices.

## **Cereal-Driven Inflation:**

- Cereal prices, the largest component in the 'food and beverages' group, saw a 9.93% inflation rate in December.
- Despite a marginal slowdown from November, key sub-groups like Jowar and Bajra continued to experience notable month-on-month inflation.
- The persistence of high inflation in these staples poses challenges, particularly for households already grappling with various degrees of precarity.

#### Pulses: Surging to 43-Month High

- Pulses, a vital protein source for vegetarian households, witnessed a 20.7% inflation rate, marking a 43-month high.
- Concerns arise with the current Rabi season's pulse sowing, which is almost 8% lower than the corresponding period in 2023, indicating an unsettling outlook for Pulse prices in the coming months.

#### **Vegetables: Fluctuating Prices**

- Year-on-year inflation in vegetable prices soared by almost 10 percentage points, reaching a fivemonth high of 27.6%.
- Tomatoes and Onions led the charge with price increases exceeding 33% and 74%, respectively, from December 2022.
- However, reflecting seasonal volatility, both kitchen staples and the broader subgroup experienced month-on-month deflation.

#### **Concerns for Policymakers: Rising Costs and Global Uncertainty**

- Despite sequential deflation in some vegetable prices, the average retail price of monitored food items remains higher than the previous year.
- As households allocate larger shares of their income to rising food costs, there is a genuine risk of exacerbating already weak consumption, potentially derailing broader economic growth.
- The escalating crisis in West Asia adds a new layer of uncertainty to global trade and energy costs, presenting an additional challenge for policymakers.

**Nut Graf:** In December, the Consumer Price Index hit a four-month high with a notable 83 basis points increase in Consumer Food Price Index, led by surging cereal and pulse prices. This poses a significant threat to household consumption and broader economic growth, compounded by global uncertainties.

#### 7. Taxpayers can withdraw court cases and approach GST Tribunal for speedier outcomes

**Context:** Taxpayers can withdraw their GST-related cases filed in High Courts and the Supreme Court and lodge them with the upcoming GST appellate tribunals so as to speed up their outcomes, Finance Minister Nirmala Sitharaman said in the Lok Sabha.

• The Parliament's Lower House subsequently passed amendments to the central GST law aimed at operationalising the tribunals at the earliest.

#### **Benefits:**

- Will enhance ease of doing business
- Will reduce the pendency and faster disposal of cases
- This will give clarity to the GST law and further reduce the future litigation
- GSTAT will indeed be beneficial for taxpayers as filing appeals in the high court was a timeconsuming and costly process. This will now be expected to become cost-effective for a taxpayer.

#### 8. Sovereign Credit Rating Issues

Context: 'Rating firms' biases raise developing nations' funding costs'.

#### Government's arguments

- Between 2006 and 2022, India's GDP has risen 3.6 times from \$940 bn to \$3.4 tn and has progressed from world's 14th to 5th largest
- Forex reserves have gone up from \$177 bn at the end of 2006 to \$616 bn now
- India has never defaulted on its external debt obligations
- The methods followed by the CRAs are opaque
- US, UK, China the debt levels are pegged at 160%, 140% and 200% respectively
- India's general govt debt has declined sharply from 88% in FY21 to 81% in FY23

- The last upgrade was done by S&P in 2007 and Fitch in 2006 to BBB- and Moody's upgraded it to Baa2 in November 2017 and restored it to Baa3 in 2020. Opaqueness and non-transparency are fertile grounds for sowing suspicion about the discriminatory intent
- Between 2020 to 2022, over 56% of the African countries that are rated by at least one of the 3 CRAs were downgraded
- On the other hand, only 9% of European countries were downgraded

#### 9. Kerala drags central govt to Supreme Court

**Context:** The Kerala government moved the Supreme Court (SC) against the Centre's interference in the state's finances.

#### Arguments put forward by Kerala Government

- There are unconstitutional limits imposed by the centre and these are undermining the state's right to borrow and regulate its own finances
- Centre is inflicting severe damage to its economy by interfering in the state's finances
- Because of centre's policies the state is not able to fulfil the promises it has made in its budget
- Has urged the SC to restore the net borrowing ceiling under the Kerala Fiscal Responsibility Act 2003
- The tax revenue share for Kerala has fallen from 3.88% of total devolution in 10th FC to 1.93% in the 15th FC (Kerala's share in total population is 2.6%)
- Not having enough resources is impairing the growth prospects of the state state capex is 1.87% of GSDP
- FRBM Act 2003 Fiscal Responsibility and Budget Management Act 2003
- The state borrowings to be restricted at 3% of GSDP
- During pandemic relaxation was provided
- As per the recommendations of the 15th FC
- 4% of GSDP (2021-22)
- 3.5% of GSDP (2022-23)
- 3% of GSDP (2023-24 to 2025-26)
- Accordingly, the state has been allowed to borrow ₹ 32442 Cr in FY23

#### Arguments put forward by Central Government

- The state's finances are in disarray because of the state government's mismanagement
- All the funds that the centre owes have been transferred.
- Instances where the funds have been held.
- The state is not meeting the conditions imposed by the finance commission
- The state is rebranding the schemes.
- Many critics also have pointed to the pay revision implemented in 2021 (salaries account for around 48% of revenue expenditure).
- Centre has rejected Kerala's plan to borrow more on the grounds that its debt to GDP ratio (38.6% of SDP) is already high.

#### 10. What are the RBI's guidelines on State 'guarantees'?

**Syllabus:** Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Mains: RBI Interventions and roles

#### Introduction:

In response to concerns regarding the management of guarantees provided by State governments, the Reserve Bank of India (RBI) has issued a set of recommendations aimed at bolstering fiscal oversight and mitigating potential risks.



#### **Overview of State Government Guarantees:**

- State government guarantees, which serve as contingent liabilities, are critical instruments that protect lenders and investors from borrower defaults.
- However, their indiscriminate use can strain state finances and escalate debt burdens.

#### **RBI's Working Group Recommendations: Addressing Regulatory Gaps**

- The RBI's working group has proposed comprehensive reforms to address these challenges. One key aspect involves broadening the definition of guarantees to encompass all instruments creating obligations on the guarantor, irrespective of their nature or conditions.
- By adopting a more inclusive approach, regulators aim to enhance transparency and consistency in reporting.
- The recommendations emphasize prudent usage of guarantees by state-owned entities.
- These entities should refrain from substituting state budgetary resources with guarantees and adhere to strict guidelines when seeking financial assistance.
- Limits on the issuance of guarantees and adherence to risk management strategies, including assigning appropriate risk weights, are integral components of the proposed reforms.
- The RBI advocates for enhanced disclosure practices, urging financial institutions to provide comprehensive data on credit extended to state-owned entities backed by government guarantees.
- This initiative aims to improve accountability and facilitate informed decision-making processes.

#### Significance:

- Implementing these recommendations is crucial for strengthening fiscal governance and promoting financial stability.
- By safeguarding state finances and investor interests, regulators seek to instill confidence in financial markets and facilitate sustainable economic growth.

#### **Conclusion:**

- The RBI's recommendations mark a significant step towards fortifying fiscal oversight and ensuring responsible financial management at the state level.
- Collaboration between regulatory authorities and state governments is essential to effectively implement these reforms and safeguard the long-term financial health of the economy.

**Nut graf:** The Reserve Bank of India (RBI) has proposed comprehensive reforms to enhance oversight and management of state government guarantees, addressing fiscal risks and promoting transparency. These recommendations aim to strengthen financial stability, accountability, and prudent fiscal management across state entities

#### 11. Centre starts survey on participation of women in workforce

**Syllabus:** Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Mains: Women's participation in the workforce

**Introduction:** The joint survey launched by the Union Ministries of Labour & Employment and Women & Child Development marks a significant step towards understanding and enhancing women's participation in the workforce.

• Announced during the "Women in the Workforce for Viksit Bharat" event, the survey aims to assess the prevalence of women-friendly practices in workplaces across India.

## Present Trends in Participation:

- International organizations like the International Labour Organization have expressed concerns over the declining participation of women in the workforce, making this collaborative effort timely and essential.
- The latest data from the Periodic Labour Force Survey (PLFS) highlights a promising trend, with women's participation increasing from 23.3% in 2017-18 to 37% in 2022-23.

# **Objective of the survey:**

- The survey seeks to gather insights from government scheme subscribers about various policies and initiatives implemented by their employers to support women in the workforce. These include the establishment of internal complaint committees, provision of childcare facilities, ensuring equal pay for equal work, offering flexible or remote working arrangements, and providing safe transportation during late hours.
- The focus remains on gathering valuable insights without compromising individuals' privacy.
- By examining the implementation of women-friendly practices at workplaces, the survey aims to identify areas for improvement and formulate strategies to enhance women's participation in the workforce.

**Significance:** The joint survey reflects a commitment to promoting gender equality and creating inclusive work environments where women can thrive professionally. It represents a collaborative effort between government ministries, international organizations, and stakeholders to address the challenges hindering women's full participation in the workforce and pave the way for a more equitable future.

**Nut graf:** The joint survey by the Ministries of Labour & Employment and Women & Child Development aims to assess women-friendly practices in Indian workplaces, addressing concerns over declining workforce participation. It reflects a collaborative effort to promote gender equality and formulate strategies for enhancing women's professional participation, focusing on privacy and inclusivity.



#### 1. India – South Korea Defence Cooperation

**Syllabus:** GS-2, Effect of policies and politics of developed and developing countries on India's interests.

Mains: India – South Korea defence cooperation

**Context:** The recent diplomatic overture during the visit of General Manoj Pande, Chief of the Army Staff of India, in November 2023, to the Republic of Korea, signifies a critical juncture in the trajectory of India-Korea defence relations.

#### Issues

#### • Absence of Comprehensive Defence Framework

- Lack of a shared vision for a new comprehensive defence framework.
- Need for a robust structure to align policies and operations for a sustainable emerging regional order.
- Korean View of India's Regional Role
  - Korean government's resistance to reassess India's role in the region.
  - Paradigm shift needed in Korean strategic thinking to forge a deeper partnership with India.
- Overemphasis on Weapons Acquisition
  - Indian focus on weapons acquisition and technology transfer overshadows broader strategic considerations.
  - Korean defence establishment's profit-driven approach to weapons sales may hinder longterm strategic goals.
- Coalition of North Korea, China, and Russia
  - Emerging coalition poses a new serious challenge to collaborative efforts.
  - Divergent stances may arise, necessitating nuanced appraisal of each party's strategic imperatives.

#### Significance

- **High-Level Interactions:** Gen. Pande's interactions with top Korean military leadership and defence institutions strengthen ties.
- **Technological Collaborations:** Leveraging technological capabilities for advanced defence systems propels both countries to the forefront of innovation and self-reliance.
- **Space Warfare and Cybersecurity:** Opportunities for cooperation in space warfare, information warfare, and cybersecurity to counter emerging threats in the digital domain.
- **Counterterrorism and Maritime Security:** Collaborative efforts in counterterrorism, joint patrolling, and information sharing enhance regional security, particularly in the Indian Ocean.
- **Peacekeeping and Exercises:** Utilising UN peacekeeping expertise for collaborative efforts enhances regional and global stability.
- Humanitarian Assistance and Disaster Relief (HADR): Joint exercises and best practice exchanges in HADR demonstrate shared responsibility in addressing vulnerabilities to natural disasters.

#### Way forward:

- Shared Vision for Defence Framework: Develop a shared vision for a comprehensive defence framework to provide a robust structure for cooperation.
- **Paradigm Shift in Korean Strategic Thinking:** Overcome Cold War mentalities and recognize India as a regional power for meaningful engagement.
- **Balanced Approach to Weapons Acquisition:** Prioritize long-term strategic goals over short-term gains in weapons acquisition.
- Adaptability to Geopolitical Dynamics: Stay adaptable to evolving geopolitical dynamics to navigate challenges effectively.



**Nut Graf:** While the recent visit of Gen. Pande has reignited the flame of India-Korea defence cooperation, the path forward necessitates meticulous navigation through the challenges and the wholehearted embrace of opportunities.

#### 2. The global nuclear order is under strain

**Syllabus:** GS-2, Effect of policies and politics of developed and developing countries on India's interests.

Mains: Issues in global nuclear order

**Context:** The global nuclear order (GNO), established in the aftermath of the Cold War, is facing unprecedented challenges. The GNO, crucial for preventing nuclear conflict and proliferation, is currently under strain.

#### Lessons of the Cold War

- The GNO originated during the Cold War, with the U.S. and U.S.S.R. recognizing the need for bilateral mechanisms to prevent nuclear escalation.
- The Cuban Missile Crisis underscored the dangers of nuclear weapons, leading to the creation of the GNO.
- The Nuclear Non-Proliferation Treaty (NPT) and the Nuclear Suppliers Group were integral elements, in addressing proliferation concerns.

#### Significance of the GNO

#### Taboo against Nuclear Weapons

- The taboo against nuclear weapons has held since 1945.
- Arms control processes and the NPT contributed to preserving this taboo.

#### • Success in Non-Proliferation

- Despite predictions, only four countries (India, Israel, North Korea, and Pakistan) have developed nuclear weapons since the Cold War.
- Successful denuclearization efforts, particularly in Belarus, Ukraine, and Kazakhstan.

Mixed Record in Arms Control

- Arms control did not end the U.S.-U.S.S.R. nuclear race.
- Reduction in arsenals since the late 1980s due to the end of the Cold War rivalry.

#### **Changing Geopolitics**

#### 1. Shift from Bipolar to Multipolar World

- Rise of China as a global power challenging the U.S.
- Economic and technological rivalry between the U.S. and China.

#### 2. Strain on U.S.-Russia Treaties

- Withdrawal from the ABM and INF Treaties.
- New START agreement lapsing in 2026, strategic stability talks collapsing.

#### 3. Emergence of Nuclear Peer Rivals

- U.S. faces nuclear peer rivals in China and Russia.
- Exploration of new roles for more usable weapons, raising concerns.

#### 4. Evolution of U.S. Policy

- Pragmatic U.S. policy regarding nuclear proliferation.
- Concerns raised by the AUKUS deal with Australia.

#### The GNO's Increasing Shaky Ground

#### 2. Changing Nuclear Dynamics

- Shift in attitudes towards nuclear weapons in South Korea and Japan.
- Questions about U.S. 'extended deterrence' guarantees.

#### 3. Uncertain Future

- Domestic compulsions leading the U.S. to turn inward.
- Allies considering independent nuclear deterrent capabilities.

**Nut Graf:** The GNO, rooted in Cold War dynamics, is facing unprecedented challenges in the current geopolitical landscape. Shifting power dynamics, changing attitudes towards nuclear weapons, and the emergence of nuclear peer rivals are straining the foundations of the GNO.

#### 3. How has Red Sea trouble impacted India?

**Syllabus:** Effect of policies and politics of developed and developing countries on India's interests Prelims: Red sea

Mains: Impact of Red Sea trouble on India

**Context:** The Red Sea has become a hotspot of insecurity due to a series of attacks on cargo ships by the Houthi militia of Yemen since November. The resultant instability has compelled cargo ships to avoid the Red Sea route, opting instead for the longer journey around the Cape of Good Hope.

#### Issues

#### • Unsafe Red Sea Route

- Attacks by the Houthi militia in the Red Sea have rendered the traditional marine route through the Suez Canal unsafe.
- Cargo ships are diverting to the longer Cape of Good Hope route, increasing shipping costs and delivery times.

#### • Impact on Indian Trade

- Nearly 90% of India's cargo to the western hemisphere, destined for Europe, the U.S. East Coast, and North Africa, is rerouted via the Cape of Good Hope.
- Different buyer-seller contracts (FOB, CIF, C&F) influence the distribution of freight burden, affecting consignment movement.
- Roughly 20-25% of consignments are being held back, primarily impacting low-value, high-volume cargo and perishables.

#### **Operation Prosperity Guardian**

- US Defense Secretary Lloyd Austin announced the creation of Operation Prosperity Guardian 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.

#### Way Forward:

#### International Cooperation

- The UN condemns Houthi attacks on freedom of navigation, emphasizing the need for global support.
- The U.S. urges backing for 'Operation Prosperity Guardian' to ensure open and threat-free sea lanes.

#### National Response

 India is closely monitoring the situation, with discussions held at the official and trade body levels.

 Exploration of diplomatic solutions and collaboration with affected nations to safeguard maritime security.

**Nut Graf:** The Red Sea crisis has far-reaching consequences for India's trade, creating challenges in terms of increased shipping costs, delayed deliveries, and potential disruptions to critical imports.

#### 4. The larger message to New Delhi from the Red Sea

Syllabus: GS-2, India and its Neighbourhood – Relations.

Mains: Two front challenges in the wake of unfolding new era of Geopolitics

#### Indo-Pacific Breakout:

#### • The shift from Continental to Maritime Focus

- The Indo-Pacific represents India's strategic shift from the continental theatre, surrounded by China and Pakistan, to a maritime focus.
- Challenges at land borders prompt a move towards maritime opportunities.

#### Houthi Terror Attacks

- Recent Houthi attacks on commercial ships in the Red Sea raise concerns.
- India's External Affairs Minister engaged with Houthi sponsors to cease attacks.
- Indian Navy deployed guided missile destroyers in response to the Red Sea situation.

#### **Two-Front Challenge:**

#### **Evolving Security Landscape:**

- India faces a new two-front challenge, combining continental and maritime threats.
- Shift in focus from the Pakistan-China nutcracker situation to a combination of continental and maritime challenges.

#### • China's Dual Strategy:

- China, with a growing navy, exerts pressure on the Line of Actual Control and increases its presence in the Indian Ocean.
- China's overseas military bases in Djibouti, activities in Gwadar, Hambantota, Kyaukpyu port in Myanmar, and strategic partnerships across the Indo-Pacific encircle India.

#### • Maritime Containment:

- China's actions from Djibouti to the Indian Ocean indicate a strategy to contain India in the Indo-Pacific.
- Expansion of influence from the Horn of Africa to the Far East challenges India's traditional sphere of influence.

#### Crafting a Response

#### • Global Attention on Indo-Pacific:

- Growing global interest in the Indo-Pacific provides an opportunity for India.
- The Indian Ocean's significance prompts major countries, including the U.S., to be concerned about China's actions.

#### Coalition Building

- India should form coalitions with like-minded countries to counter China's influence.
- Partnerships are crucial for India, given its pivotal role in the Indo-Pacific.

#### Indo-Pacific Strategy

- India needs a well-thought-out Indo-Pacific strategy beyond ad-hoc responses.
- Initiatives like the Quad and Exercise Malabar are steps but insufficient to address the grand challenge unfolding quickly.

#### • Long-term Considerations

- The Red Sea situation is temporary, but India's two-front challenge will persist.
- India's decision not to join 'Operation Prosperity Guardian' may be appropriate for now, but long-term strategies must be developed to effectively meet the China challenge.

**Nut Graf:** India's strategic shift from a continental to a maritime focus faces challenges, highlighted by recent Houthi attacks in the Red Sea. China's dual strategy, combining continental and maritime pressure, poses a significant two-front challenge, urging India to craft a comprehensive Indo-Pacific strategy and build international coalitions.

#### 5. Why international law matters?

Syllabus: GS-2, Important International Institutions, agencies and fora – their Structure and mandate.

**Mains:** Why does International law matter irrespective of the fact that many times they are getting violated

#### Introduction:

- Israel's war in Gaza and Russia's invasion of Ukraine have sparked debates about the effectiveness
  of international law.
- The rule prohibiting the use of force in international relations (Article 2(4) of the UN Charter) has been challenged.
- Past declarations of the death of international law, including Thomas Franck's 50-year-old argument, have resurfaced.

## Moving beyond compliance:

- Critics emphasize poor compliance as evidence of international law's inconsequence.
- Compliance alone is an insufficient metric; international law's normative interaction with different actors is crucial.
- National courts often use international law to interpret domestic law, expanding its content without domestic legislation.

#### Accountability:

- International law's significance extends beyond material outcomes, according to Monica Hakimi.
- The ability to distinguish between public power and legitimate authority is a fundamental attribute of any legal system.
- The International Court of Justice (ICJ) case where South Africa alleges Israel's violation of the Genocide Convention exemplifies accountability.

#### Way forward:

- Harold Hongju Koh argues that a complex transnational legal process leads states to comply with international law.
- International law should be seen as a tool to hold those in power accountable for their conduct.
- While not perfect, the system encourages countries and actors to explain their actions, fostering transparency.
- The world would be worse off without international law structures; there is a universal aspiration towards compliance.
- The call is for moulding and accentuating international law to be an instrument that holds the powerful accountable and constrains expansionist tendencies.

**Nut Graf:** Amidst crises like Israel's Gaza war and Russia's Ukraine invasion, doubts arise about international law's efficacy. Beyond compliance, it fosters normative interaction, holds power accountable, and, despite imperfections, remains crucial for global accountability and constraints on power.

#### 6. Wedge in India-Maldives ties



Syllabus: GS-2, India and its Neighbourhood – Relations

Mains: Strained India-Maldives relations and the road ahead

## Context:

- The decline in India-Maldives ties a month after PM Modi's meeting with President Mohamed Muizzu.
- Triggered by derogatory tweets from Maldivian Ministers, criticizing Modi's actions during his Lakshadweep visit and his ties with Israel.

## **Recent Chain of Events in Bilateral Relations:**

- The decline in India-Maldives ties within a month of PM Modi's meeting with President Mohamed Muizzu.
- Ministers got suspended, tweets deleted, and both Ambassadors summoned in damage control efforts.
- President Muizzu's choice of Turkey and China as early bilateral destinations, broke the tradition
  of India being the first priority for Maldivian Presidents.
- Continued pressure on India for the withdrawal of military personnel despite clarifications on their role.

## India as Indispensable for Maldives:

- President Muizzu, despite riding to power on an "India Out" campaign, faces challenges by choosing Turkey and China over India for his first bilateral visits.
- The historical significance of India as a neighbour, economic powerhouse, and net security provider in the Indian Ocean makes it crucial for the Maldives.
- India's positive influence during the Solih government, marked by infrastructure projects, strategic partnership, and support during COVID-19, underscores the benefits of a strong relationship.

## Way Forward to Build Relations:

- Both Delhi and Male need to step back from hypernationalistic rhetoric and consider the broader impact on regional stability.
- President Muizzu should recognize India's importance and avoid actions that may strain ties.
- India should acknowledge the need to handle smaller neighbours delicately, ensuring domestic political changes do not undermine the basic structure of bilateral ties.
- Reflect on the positive outcomes of the Solih government's ties with India, including infrastructure projects, strategic partnerships, and cooperation during the COVID-19 pandemic.
- Emphasize the paramount importance of maintaining a strong relationship, especially in a region facing several elections, to ensure stability and cooperation.

**Nut Graf:** In the wake of strained India-Maldives ties due to derogatory tweets by Maldivian Ministers, the evolving relationship under President Muizzu raises concerns. Recognising India's indispensable role is crucial, urging both nations to navigate the diplomatic challenges for sustained regional stability and cooperation.

#### 7. India doesn't need wolf warriors



Syllabus: GS-2, India and its Neighbourhood – Relations

Mains: Boycott of the Maldives tourism and its impact on bilateral relations

## Background: Lakshadweep Tourism Campaign and Maldivian Reaction

- After Prime Minister Narendra Modi visited Lakshadweep, a tourism campaign emerged on social media encouraging a boycott of the Maldives.
- Maldivian officials, including deputy ministers, responded with distasteful remarks about Mr. Modi and India.
- The Maldives later suspended the deputy ministers, emphasizing that their views were not official government positions.

## Shifting Alliances: Maldives' Pro-China Stance

- Maldivian President Mohamed Muizzu has taken a significant pro-China stance, particularly evident before his visit to China.
- During his election campaign, Muizzu criticized India, promising to remove Indian troops and balance trade relations.
- The visit to China resulted in elevated bilateral ties to a 'comprehensive strategic cooperative partnership,' indicating a move away from India.

## China's Influence: Economic and Diplomatic Shifts

- Muizzu highlighted China as the Maldives' pre-COVID-19 top market and sought increased efforts from China to regain that position.
- China and the Maldives aim to strengthen their ties, with President Xi Jinping expressing support for the Maldives to pursue a development path independent of India's influence.
- New agreements may enhance China's presence, both digitally and physically, in the Maldives, impacting regional dynamics.

## Bold Moves: Maldives' Request for Indian Military Withdrawal

- President Muizzu, emboldened by closer ties with China, requested India to remove its military personnel from the Maldives by March 15.
- The Maldives emphasized that its small size doesn't grant others the right to bully the nation.

## India's Dilemma: Diplomatic Challenges and Aspirations

- India's relationship with the Maldives is vital, given its strategic location and historical ties.
- However, India faces challenges in its diplomatic efforts, with recent instances, such as its stance on Russia's invasion of Ukraine and the Israel-Hamas conflict, affecting its global image.
- India aspires to be a norm-builder in the new world order but must reconcile its national interests with global expectations.

## Neighbourhood Dynamics: Wolf-Warrior Diplomacy Comparison

- India's approach towards the Maldives reflects a tendency to adopt a 'wolf-warrior' stance on social media, resembling China's combative and assertive diplomacy.
- The 'Neighbourhood First' policy has yielded mixed results, and India's domestic sentiments often clash with a globalist diplomatic approach.
- Recent incidents highlight the challenge for India to counter China while avoiding behaviour similar to that of its rival.

## **Balancing Act: Foreign Policy Challenges and Domestic Sentiments**

- Domestic sentiments, especially on social media, shape India's foreign policy decisions, posing challenges in managing relationships with smaller neighbours.
- The diplomatic row with the Maldives underscores the complexity of India's strategic goals in a region already fraught with various issues.

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- India must navigate a delicate balance between projecting strength and maintaining a cooperative approach to secure its interests in the evolving global landscape.

**Nut Graf:** India's diplomatic challenges with the Maldives reveal a delicate balance between regional influence and global aspirations. The shift in Maldives' stance towards China, coupled with India's domestic sentiments, highlights the complexities of projecting strength while maintaining cooperative relationships in the evolving international order.

## 8. Choppy waters

**Syllabus:** GS-2, India and its Neighbourhood – Relations.

Mains: Future of India-Maldives relationship

## **Recent Controversies:**

- Derogatory Remarks and Boycott Call:
  - Tensions between India and the Maldives arose due to offensive comments made by Maldivian Ministers.
  - Additionally, there was a call for Indian tourists to boycott the Maldives.
- Troop Stationing Dispute:
  - A significant point of contention involved the dispute over Indian troops stationed in the Maldives.
- Chinese Ship Controversy:
  - Apprehensions were raised over the expected arrival of the Chinese ship Xiang Yang Hong 03 in Male.
  - India expressed objections to the presence of Chinese research vessels in the Indian Ocean.

## **Previous Setbacks and Developments:**

- Scrapping of India-Maldives Hydrography Agreement:
  - President Muizzu's government decided to cancel the hydrography agreement with India.
- Shift in Foreign Policy:
  - President Muizzu's "India Out" campaign slogan marked a shift in the Maldives' foreign policy.
  - There was a noticeable prioritization of visits to Türkiye, the UAE, and China.

## • Welcoming U.S. Indo-Pacific Command:

• The Maldives warmly received the commander of the U.S. Indo-Pacific Command, who also presented equipment during the visit.

## India's Response and Engagement:

## • Continued Diplomacy:

- Despite existing tensions, India has chosen to continue engaging with the Muizzu government.
- High-Level Meetings:
  - In December 2023, Prime Minister Narendra Modi met with President Muizzu, establishing a high-level core group for bilateral negotiations.
  - External Affairs Minister S. Jaishankar also held a meeting with his Maldivian counterpart, focusing on resolving complex issues.

## • Diplomatic Efforts:

 Diplomatic efforts have been ongoing, reflecting the recognition of the need for dialogue on tricky issues.

## **Concerns and Considerations:**

## • Symptomatic Tensions:

- Both parties acknowledge that current tensions are symptomatic of larger, underlying issues.
- Balancing regional power aspirations with the Maldives' dependency on external support remains a challenge.

## • Impact on Elections:

- There is a recognition of the potential impact of strained relations on the upcoming Majlis elections.
- $\circ$   $\,$  Consideration is given to the effect of animosity on public sentiment.

## Importance of Détente:

## • Sovereignty vs. Diplomacy:

- The importance of balancing sovereignty concerns with the benefits of diplomatic solutions is emphasized.
- India's neighbourhood-first policy underscores the necessity of respectful engagement.

## • Humanitarian Focus:

 Concerns arise over India being perceived as imposing its military presence, given its history of humanitarian operations in the Maldives.

## Signs of Progress:

## • Xiang Yang Hong 03 Invitation:

• The decision by the Maldives to invite the Chinese ship with restrictions is seen as a potential sign that quiet diplomacy is making headway.

## Hope for Rational Approach:

## • Need for Détente:

• Emphasis is placed on the need for a rational approach over confrontation to ensure a more stable bilateral relationship through diplomatic means.

**Nut Graf:** Amidst diplomatic challenges between India and the Maldives, including disputes over derogatory remarks, troop stationing, and Chinese ship visits, both nations engage in high-level talks. Despite setbacks, hopes rest on continued diplomacy to navigate complex issues and foster a stable relationship.

## 9. Maldives-China sign 20 MoUs

**Syllabus:** Bilateral, regional and global groupings and agreements involving India and/or affecting India's Interests.Effect of policies and politics of developed and developing countries on India's interests.

Mains: Maldives – China relationship and the impact on India

## Introduction:

China and the Maldives have decided to elevate their bilateral relations to a comprehensive strategic cooperative partnership. This move underscores the growing strategic significance of their alliance. The leaders expressed their intention to deepen political engagement and expand practical collaboration in various fields.

## Key Initiatives:

 Amidst the diplomatic backdrop, both countries announced several key initiatives, including Maldives's participation in the Global Security Initiative (GSI). The governments agreed to draft an "action plan" aimed at building a robust China-Maldives Comprehensive Strategic Cooperative Partnership from 2024 to 2028.

- The signing of 20 Memoranda of Understanding (MoUs) marked agreements in blue economy, digital economy, disaster and risk mitigation, and news corporations.
- Both leaders discussed expanding channels of cooperation and fostering a high-quality partnership in BRI projects.
- The joint communiqué emphasized not only the immediate collaborative efforts but also the longterm vision of establishing a China-Maldives community with a shared future.

## Way Forward:

Against the backdrop of a diplomatic row with India, President Muizzu's visit to China has assumed increased diplomatic significance. The decisions made during the visit underscore the Maldives' intent to diversify its strategic partnerships. The strategic implications of this evolving relationship are likely to shape geopolitical dynamics in the Indian Ocean region, marking a new chapter in China's growing influence in South Asia.

**Nut graf:** China and the Maldives have upgraded their bilateral ties to a comprehensive strategic cooperative partnership, highlighting the increasing strategic importance of their alliance. The diplomatic significance of this move, amid a diplomatic row with India, suggests a strategic shift in the Maldives' partnerships and signifies China's expanding influence in the Indian Ocean region.

## 10. Why has South Africa dragged Israel to the ICJ?

Syllabus: Important International institutions, agencies and fora-Structure and Mandate

Prelims: ICJ

Mains: Why has South Africa dragged Israel to the ICJ?

**Context:** The International Court of Justice (ICJ) has been a focal point of global attention as South Africa accuses Israel of committing genocide during its ongoing military campaign in Gaza. The proceedings invoke the Genocide Convention of 1948, raising questions about the jurisdiction of the ICJ, the nature of the allegations, and the significance of the Genocide Convention in this context.

## Issues

## **ICJ Jurisdiction:**

- The ICJ, as the principal judicial organ of the United Nations, only allows states as parties in cases before the Court.
- Both South Africa and Israel, signatories to the Genocide Convention, are involved in the proceedings.

## Allegations Against Israel:

- South Africa accuses Israel of genocide during its military campaign in Gaza, invoking the Genocide Convention of 1948.
- The allegations include intentional killing, causing bodily and mental harm, and deliberately inflicting conditions leading to physical destruction of the Palestinian people.

## **Genocide Convention:**

- Adopted in 1948, the Genocide Convention aims to prevent and punish acts of genocide.
- South Africa's case relies on Article II, defining genocide as acts causing harm or destruction to specific national, racial, ethnic, or religious groups.

## Significance

- ICJ's Role:
  - The ICJ is the principal judicial organ of the UN, and its jurisdiction is invoked to address alleged violations of the Genocide Convention.
  - Provisional measures sought by South Africa aim to prevent irreparable harm while the main case is under consideration.

• South Africa's case underscores the Convention's role in holding states accountable for genocidal acts.

## • Allegations and Impact:

- South Africa accuses Israel of causing hunger, dehydration, and starvation in Gaza, impeding humanitarian assistance, and endangering civilians.
- The death toll, as claimed by South Africa, and the focus on intent to commit genocide heighten the severity of the allegations.

## Why has South Africa taken this route?

- South African sympathy for the Palestinian fight for an independent state goes back to the days of late anti-apartheid icon Nelson Mandela.
- He famously said in 1997, three years after he became the country's first democratically elected president after decades of struggle against white-minority rule: "We know too well that our freedom is incomplete without the freedom of the Palestinians."
- Notably, two South African nationals were among the dead in Hamas' attack and another is among the more than 230 people taken hostage. President Ramaphosa has pledged the ANC's solidarity with the Palestinians, saying their history had echoes of apartheid – and South Africa's struggle against white-minority rule.
- Famous Palestinian leader Yasir Arafat was one of the first leaders Mandela met after being released from prison on 11 February 1990. The late PLO leader was among a group of leaders from South Africa's neighbours who had helped in the fight against apartheid who met Mandela in Zambia just two weeks after his release from 27 years in prison.
- The ICJ referral is not the first step South Africa has taken to hold Israel to account for its attacks on Gaza; the country has repeatedly condemned Israel's actions against Palestinians. The parliament also voted to close the Israeli embassy and withdrew its diplomatic staff from Israel, while the foreign ministry delivered a referral to the International Criminal Court to investigate alleged crimes, including the crime of genocide, in the Palestinian territories in November.

## Wayforward

## • Provisional Measures:

- South Africa seeks immediate suspension of Israel's military operations in Gaza and cessation of acts within the scope of the Genocide Convention.
- Provisional measures, if granted, prevent irreparable harm pending the resolution of the main case.

## International Response:

- The international community plays a crucial role in responding to ICJ rulings, especially if provisional measures are issued.
- The UN Security Council has the authority to take measures, but enforcement depends on member states, subject to potential vetoes.

**Nut Graf:** The ICJ proceedings between South Africa and Israel highlight the gravity of allegations, with potential implications for international law and accountability. As the ICJ considers provisional measures, the case underscores the Genocide Convention's significance in addressing alleged genocidal acts and the role of international institutions in promoting justice and preventing atrocities.

#### 11. The issue of genocide and the world court



Syllabus: GS-2, Important International Institutions

Mains: Does International law and Institutions matter or is it a tool to pursue dominant power interests?

## **Background:**

- Initiation of Proceedings (December 29, 2023):
  - The Republic of South Africa filed a case against Israel in the International Court of Justice (ICJ).
  - Allegation: Israeli military operations in Gaza violate the Genocide Convention.
- Hearing on Provisional Measures (January 11-12, 2024):
  - ICJ held a hearing to determine provisional measures.
  - South Africa and Israel had three hours each to present their cases.

## Legal Context:

- Genocide as the Most Serious International Crime:
  - Genocide involves actions intending to destroy a defined group.
  - Every state has an "erga omnes obligation" to prevent genocide globally.
- Previous Cases and the Plausibility Requirement:
  - Reference to The Gambia versus Myanmar case and obtaining provisional measures.
  - Demonstrating specific intent ("dolus specialis") for genocide is challenging.

## South Africa's Argument for Provisional Measures:

• Plausible case based on Palestinian suffering, death toll, infrastructure destruction, and genocidal statements by Israeli leaders.

## Israel's Defense:

- Denial of a dispute and interpretation variations of alleged genocidal statements.
- Limited military operation scope focused on countering Hamas attacks.

## **Next Stage:**

## ICJ's Potential Provisional Measures:

- Question on the nature of measures if South Africa fulfils the plausibility requirement.
- Suggestions range from a ceasefire to directing Israeli leaders and ensuring the entry of resources into Gaza.

## • Role of ICJ and ICC:

- ICJ focuses on state actors; ICC handles non-state actors like Hamas.
- ICC referral for investigation in Palestine/Israel conflict already done.

## International Response:

## • Intervening States:

- Bangladesh and Jordan support South Africa; Germany supports Israel.
- Germany's position was questioned vis-a-vis its stance in the 'The Gambia versus Myanmar' case.

## Global Split and Historical Context:

- Divide among countries, resembling the colonial or imperial power division.
- Perception of the case as a test for the legitimacy of the "rules-based international order."

## • Significant Implications:

- Beyond Gaza, it is seen as a test of the legitimacy of international law.
- Impact of ICJ's decisions and responses of other nation-states on the "rules-based international order."

**Nut Graf:** In a pivotal case at the International Court of Justice, South Africa accuses Israel of genocide in Gaza. The debate, highlighting historical divides and testing the legitimacy of international law, unfolds amidst global interventions and opposition, shaping the fate of a "rules-based international order."

## 12. Justice without power



Syllabus: Important International institutions, agencies and fora- Structure and Mandate

**Prelims:** International Court of Justice (ICJ)

Mains: International Court of Justice (ICJ) mandate and structure

**Context:** The International Court of Justice (ICJ) is in the spotlight due to hearings on a case filed by South Africa, accusing Israel of genocide in Gaza. The conflict, triggered by an October 7 Hamas attack, has resulted in significant casualties and displacements.

## **ICJ Establishment and Powers:**

 Founded in June 1945 by the UN Charter, the ICJ operates with advisory and contentious jurisdiction. It replaced the Permanent Court of International Justice, focusing on settling disputes and determining state responsibility for crimes against international law.

## **Judicial Structure:**

 Comprising 15 judges with nine-year terms, appointed through UN General Assembly and Security Council elections, the ICJ emphasizes impartiality. However, past instances reveal voting aligned with national politics.

#### **Enforcement Challenges:**

• While ICJ decisions are binding, enforcement relies on the UN Security Council (UNSC). Veto powers of permanent members, like the U.S. in the case against Israel, hinder enforcement. Non-participation of powerful states further complicates efficacy.

#### **Procedural Criticisms:**

• The ICJ's slow, bureaucratic procedures draw criticism, with rulings taking years. The delay raises concerns about the practical redressal of injustice, as seen in the Gambia vs. Myanmar case.

#### **Relevance and Achievements:**

 Over the years, states have approached the ICJ for diverse international law matters. It has played a significant role in human rights, environmental issues, and dispute settlement. Major rulings, like the DRC vs. Uganda, demonstrated compliance.

#### **Advisory Role and Ongoing Cases:**

• The ICJ's advisory role has contributed to peaceful conflict resolutions. Current proceedings on Israel-Palestine, initiated by South Africa, align with the UN General Assembly's call for an advisory opinion on Israel's illegal occupation.

#### Niche Position Amid Challenges:

 Despite the emergence of new tribunals, the ICJ maintains a niche in international judicial adjudication. However, concerns exist about potential contradictions in rulings among various judicial bodies.

**Nut Graf:** The ICJ, though impactful, faces challenges related to enforcement, procedural delays, and political biases. Its role as a last resort for justice underscores the importance of international law in safeguarding global interests.

#### 13. Bangladesh elections



Syllabus: GS-2, India and its Neighbourhood – Relations

Mains: Recent Bangladesh election and impacts on bilateral relation

**Context:** The January 7 elections saw Awami League win 222 seats, while the main opposition party boycotted, resulting in controversy.

#### The Outcome of the Recent Election:

- Awami League, led by Sheikh Hasina, secured 222 seats in the 300-member Parliament.
- Jatiya Party, a smaller opposition, won 11 seats, and independents took the majority of the remaining seats.
- Bangladesh Nationalist Party (BNP) called for a general strike, alleging a "sham" election, leading to protests and crackdowns.

#### Achievements of Sheikh Hasina:

- Hasina, a survivor of family massacres, fought against Ershad's dictatorship, restoring democracy in the 1980s.
- In her second term (2009), she stabilized civilian rule, addressed Islamist extremism, and facilitated economic growth.
- Accusations of dismantling the BNP through state institutions, house arrest of Khaleda Zia, and opposition crackdown.
- Independent polls show widespread approval for Hasina's governance, particularly for her efforts in accountability and economic development.

#### **Challenges Ahead:**

- Post-COVID-19, Bangladesh faces economic challenges, including high inflation, falling foreign reserves, and a doubled debt.
- Accusations of turning the country into a one-party state and allegations of high-handedness pose political challenges.
- Opposition's non-cooperation and protests, coupled with a significant drop in voter turnout, add to the complexity.
- To build a democratic and prosperous Bangladesh, Sheikh Hasina, in her fourth term, needs to adopt a more conciliatory and accommodative approach.

**Nut Graf:** In the aftermath of Bangladesh's recent elections, where Prime Minister Sheikh Hasina secured a commanding victory, the nation grapples with allegations of a one-party state. Despite Hasina's past achievements, mounting economic challenges post-COVID-19 necessitate a more inclusive and conciliatory leadership approach.

#### 14. The geopolitics in the Bangladesh election results

Syllabus: GS-2, India and its Neighbourhood – Relations

Mains: Bangladesh election and its geopolitical impact

#### Introduction: Election Results and Political Context

- Bangladesh's national elections on January 7, 2024, saw the ruling Awami League securing a significant victory with 225 out of 300 seats.
- The main opposition, the Bangladesh Nationalist Party (BNP), boycotted the polls, demanding elections under a neutral caretaker government.

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## **Historical Electoral Issues:**

- Allegations of electoral manipulation, irregularities, and violence have surrounded previous elections in 2014 and 2018 under the Awami League, drawing international criticism.
- The constitutional provision for a neutral caretaker government was abolished by the Awami League in 2009.

# Regional and Global Geopolitical Dynamics:

- Bangladesh has become a rising economic powerhouse with strategic importance in South Asia.
- Global powers such as China, India, Russia, and the United States are vying for influence in the region.

# India's Strategic Interests:

- India, with deep historical and economic ties to Bangladesh, views it as a crucial partner for balancing China's growing regional influence.
- Bilateral trade and various agreements underscore a close relationship, with India congratulating Sheikh Hasina after her win.

# U.S. Critique and Dilemma:

- The U.S. has criticized the Bangladesh government for democratic shortcomings, human rights issues, and press freedom suppression.
- There is a tension between advancing core strategic interests and upholding democratic values, as reflected in visa restrictions threats.

# China's Perspective:

- China, Bangladesh's top trading partner, views the election as an internal matter and congratulates the Awami League on its victory.
- China's Belt and Road Initiative (BRI) has significant investments in Bangladesh's critical infrastructure.

# **Russia's Interests and Collaboration:**

- Russia, investing in Bangladesh's infrastructure projects, has drawn closer ties, particularly through the Rooppur nuclear power plant.
- Russia congratulated Sheikh Hasina on her election victory, highlighting a unique act of collaboration with India.

# **Geopolitical Battleground:**

- Bangladesh's economic and strategic importance has turned the 2024 election results into a geopolitical battleground.
- The U.S. and its allies may find it challenging to conduct business as geopolitical considerations complicate relations.

# Potential Impact on the Economy:

- The readymade garment industry, a significant source of foreign exchange, could be affected if the U.S. and EU impose restrictions.
- The International Monetary Fund warns of economic challenges, including energy import prices, diminishing dollar reserves, and a weakening local currency.

# UN's Role and Possible Consequences:

- In 2007, the UN issued a warning to Bangladesh during the opposition BNP's attempt to manipulate elections.
- The UN's stance this time, beyond criticism, remains uncertain, affecting Bangladesh's involvement in peacekeeping operations.

## **Domestic Challenges for Hasina's Government:**

- Surging living costs have triggered protests, compounded by the challenges of dealing with soaring energy import prices, diminishing dollar reserves, and a weakening local currency.
- The post-COVID-19 recovery presents multiple economic shocks, requiring the delicate balancing of geopolitics with national interests.

**Nut Graf:** Bangladesh's 2024 elections, marked by controversy, geopolitical tensions, and economic significance, reveal the Awami League's resounding victory and global powers' varied responses. Amidst critiques, the nation grapples with potential impacts on trade, geopolitics, and domestic challenges, shaping its uncertain path ahead.

#### 15. The growth of India-Bangladesh ties

Syllabus: India and its Neighborhood- Relations

Mains: India Bangladesh Relations

## Introduction:

Prime Minister Sheikh Hasina's recent victory securing her fourth consecutive term underscores the enduring relationship between India and Bangladesh.

## Flourishing Ties with Bangladesh in Recent times:

- The foundation of this relationship was laid during the 1971 Bangladesh Liberation War, where India played a pivotal role in assisting Bangladesh's fight for independence.
- Despite occasional strains, bilateral relations significantly improved when Sheikh Hasina came to power in 1996. The subsequent decades witnessed collaboration in trade, energy, infrastructure, connectivity, and defense.

## Cooperation in various fields:

## **Economic Cooperation:**

- Bilateral trade has seen substantial growth, making Bangladesh India's largest trade partner in South Asia.
- Both nations are exploring a Comprehensive Economic Partnership Agreement (CEPA), a significant step toward deeper economic integration.
- However, concerns arise as Bangladesh is set to lose its Least Developed Country (LDC) status after 2026, affecting its duty-free access to the Indian market.

## Infrastructure Development:

- India's role as a "major development partner" is evident in the funding of various infrastructure and connectivity projects in Bangladesh.
- The Akhaura-Agartala rail link, inaugurated in 2022, provides a crucial connection between Bangladesh and India's northeast, enhancing trade and connectivity.
- The Matarbari Port development signifies a strategic industrial corridor linking Dhaka and northeastern India.

## **Points of Tension:**

- The looming Teesta water dispute remains a central concern, with Bangladesh seeking equitable water distribution. The Rohingya issue adds complexity, with Bangladesh aiming for peaceful repatriation while facing challenges with the Myanmar junta.
- Cross-border terrorism and the rise of majoritarian forces pose additional threats.

## **Global Ties:**

- Global dynamics play a role, with the U.S. expressing concerns over democratic backsliding in Bangladesh.
- Sanctions on a Bangladeshi anti-crime and anti-terrorism task force reflect international scrutiny. Additionally, the deepening relationship between Bangladesh and China raises eyebrows, given China's substantial investments in Bangladeshi infrastructure.

## Way Forward:

As India and Bangladesh navigate these multifaceted challenges, the trajectory of their relationship holds significance for regional stability. Diplomatic finesse is essential to address tensions and foster deeper cooperation in a rapidly evolving geopolitical landscape. The future of India-Bangladesh relations remains pivotal for South Asian dynamics.

**Nut graf:** The enduring India-Bangladesh relationship, rooted in historical ties and recent collaborative efforts, faces challenges like the Teesta water dispute and Rohingya issue. Navigating these complexities is crucial for regional stability and the evolving dynamics of South Asia.

## 16. Iran strikes in Iraq, Syria & Pakistan

Syllabus: India and its Neighbourhood – Relations.

Effect of Policies and Politics of Developed and Developing Countries on India's Interests.

## Mains: Recent international events and their implications

**Introduction:** In recent times, Iran has faced mounting security challenges, prompting a robust response from the nation. The geopolitical landscape in the Middle East, marked by conflicts in Gaza and heightened tensions with Israel, has created a complex scenario for Iran.

## **Recent events of escalation:**

- The sequence of events unfolded with an attack on a police station in Rask, Sistan Baluchestan, leading to casualties among Iranian security personnel.
- Subsequent strikes targeted Iranian officials, including the assassination of Brigadier General Sayyed Razi Mousavi in Damascus. These incidents raised concerns about Iran's vulnerability to security threats.

## **Complex Regional Dynamics:**

- The Gaza war, involving Hamas (supported by Iran) and Israel, added a layer of complexity to the regional dynamics.
- Israel's strikes in Lebanon and Syria intensified, affecting Iranian commanders. The Houthi
  rebels, another Iranian-backed group, faced U.S. and U.K. attacks in the Red Sea after targeting
  commercial vessels.

## Iran's Strategic Messaging:

- Amid these challenges, Iran employed a multi-faceted military response, signalling its willingness to defend its interests aggressively.
- The attacks conveyed a message to both Sunni militants and conventional rivals, emphasizing Iran's readiness to take military action if its security red lines are crossed.

## **Global Implications:**

- Internally, the Iranian government aimed to reassure its citizens that it could assertively ensure the nation's security and avenge the killing of its commanders.
- However, the repercussions of these military moves on the broader regional security landscape remain uncertain.



#### Conclusion:

As Iran navigates through this ring of fire, the strategic implications of its responses will likely shape the future security dynamics in the Middle East. The region watches closely to discern whether Iran's assertive military actions will lead to improved internal and external security or contribute to the escalation of an already volatile situation.

**Nut graf:** Iran's recent response to mounting security challenges amid conflicts in Gaza, tensions with Israel, and internal incidents, highlights the complex regional dynamics, global implications, and Iran's strategic messaging through military actions. The uncertain outcomes of these assertive moves and their impact on the Middle East's security landscape are highlighted.

## 17. China-Taiwan Relations

Syllabus: Effect of Policies and Politics of Developed and Developing Countries on India's Interests

Mains: China-Taiwan conflict

## **Taiwan's Democratic Elections:**

- Lai Ching-te, from the Democratic Progressive Party (DPP), wins the presidential election in Taiwan.
- The third term for the DPP is perceived as a setback for China.

## Diplomatic Shift: Nauru Moves from Taipei to Beijing

- Nauru's decision follows a pattern of smaller nations shifting diplomatic ties from Taipei to Beijing.
- Beijing's strategy involves financial incentives and infrastructure promises.
- Taiwan's diplomatic space has shrunk from 22 to 11 recognitions since 2016.

## China-Taiwan Ties and the '1992 Consensus':

- China's assertiveness is linked to Taiwan President Tsai Ing-wen's refusal to accept the '1992 consensus.'
- The consensus recognizes 'One China,' agreed upon by Kuomintang (KMT) and the Communist Party of China (CPC).
- Tsai's opposition stems from a 'Taiwanese consensus' and a rise in 'Taiwanisation.'
- Younger generations in Taiwan identify as Taiwanese, not sharing historical ties with China.

## **Chinese President Xi Jinping's Goals:**

- Xi emphasizes rejuvenation of the Chinese nation and reunification with Taiwan.
- Taiwan's pro-independence stance intensifies China's aggressiveness.
- Xi's New Year's address asserts reunification as 'inevitable' and Taiwan as 'sacred territory.'
- DPP's electoral victory signals Taiwanese resistance to rapid reunification.

## **Democracy in Taiwan:**

- Taiwan's democratic elections started in 1996, marked by Chinese missile firings across the Taiwan Straits.
- Democracy in Taiwan has strengthened and regularized since then.
- Beijing's discomfort with Taiwanese democracy challenges the notion of the CPC as the sole political option.

## Implications of DPP's Victory:

- Lai's presidency signifies a tougher path for Taiwan's future.
- A win for Taiwan's democratic future and a challenge to China's reunification aspirations.
- Despite Xi's denial of a set timeline, pressure on Taiwan is expected to increase.
- The situation is complicated by escalating nationalism on both sides of the straits.

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## Future Diplomatic Challenges for President Lai

- Lai must navigate diplomatic challenges resulting from China's pressure and Taiwan's proindependence stance.
- Intensifying nationalisms on both sides add complexity to the diplomatic landscape.
- The DPP government faces the task of maintaining Taiwan's democratic identity amid external pressures.

**Nut Graf:** Taiwan's recent democratic election, resulting in Lai Ching-te's victory, poses a challenge to China's reunification aspirations. Despite diplomatic setbacks, Taiwan's resilient democracy and proindependence stance signal a complex future under President Lai, navigating heightened tensions and nationalism.

## 18. Pakistan retaliates against Iran

Syllabus: Effect of Policies and Politics of Developed and Developing Countries on India's Interests

Mains: Geopolitical implication of the recent Pakistan-Iran conflict

## Context:

- Pakistan's Air Force launches retaliatory air strikes in Iran against alleged militant hideouts.
- The attack took place early on 18 January, escalating tensions between the two neighbouring countries.

## **Previous Iranian Attack:**

- Iran had conducted a similar attack inside Pakistan on 16 January, targeting Baloch militant groups with separatist goals.
- Both nations accuse each other of providing safe haven to these groups within their territories.

## Pakistan's Justification:

- Pakistan's Foreign Ministry describes the strikes as "highly coordinated and specifically targeted precision military strikes."
- The action was taken based on credible intelligence indicating an impending large-scale terrorist threat.
- Emphasis on protecting and defending national security against all threats.

## **Casualties and Iranian Response:**

- At least nine people were killed in the strikes on the 18th, including three women, four children, and two men near Saravan along the border.
- Iran summoned Pakistan's charge d'affaires in response to the attack, further straining diplomatic ties.
- Pakistan had already withdrawn its Ambassador over the previous Iranian attack.

## **Risk of Escalation:**

- Ongoing risk of escalation as Iran begins an annual air defence drill, named "Velayat 1402," from Chabahar to Iraq.
- The drill involves live fire from aircraft, drones, and air defence systems.

## **Political Response:**

• Pakistan's caretaker Prime Minister cut short his trip to Davos, Switzerland, to address the situation at home.

## **Military Details:**

- Pakistan's military employed "killer drones, rockets, loitering munitions, and standoff weapons" in the attack.
- Standoff weapons indicate missiles fired from a distance, suggesting Pakistani fighter jets did not enter Iranian airspace.

**Nut Graf:** Pakistan launched retaliatory air strikes in Iran following an Iranian attack. Tensions rise as both nations accuse each other of harbouring militants. Casualties are reported, diplomatic strain ensued, and the risk of escalation persists amidst military drills.

#### **19. India-UK defence ties**

**Syllabus:** GS-2, Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Mains: India-UK defence relation in the backdrop of the rise of China

## Introduction:

- Defence Minister Rajnath Singh's recent visit to the U.K. after a 22-year gap signifies a new phase in India-U.K. defence ties.
- Changing geopolitical dynamics, especially China's military expansion in the Indian Ocean, prompt a reorientation of strategic priorities for both countries.

## **Technological Collaboration:**

- The Indian Navy faces capability shortfalls compared to the People's Liberation Army Navy (PLAN) and seeks technological advancements.
- There is a key focus on electrical propulsion technology for aircraft carriers, an area where the U.K. possesses expertise.
- The Royal Navy's Queen Elizabeth Class aircraft carriers use electric propulsion, providing a model for India's naval advancement.
- Establishment of the "India-UK Electric Propulsion Capability Partnership" to address technological gaps.
- A joint working group was initiated in February 2023, followed by a delegation-level discussion on HMS Lancaster in Kochi in March 2023.
- Detailed discussions on technical know-how transfer and the Royal Navy's experience in maritime electric propulsion.

## Strategic Advantages of Electric Propulsion:

- Electric propulsion reduces acoustic signatures, enhancing stealth capabilities for warships.
- An additional benefit of improved electrical power generation for subsystems in major warships of the Indian Navy's surface fleet.

## Timeline of Collaborative Efforts:

- November 2023 meeting to discuss the integration of electric propulsion technology into the Indian Navy's future warships.
- U.K. commitment to train, equip, and establish the necessary infrastructure for developing an electric propulsion system.
- Initial testing on landing platforms docks, followed by surface vessels like guided missile destroyers with a displacement of over 6,000 tonnes.

## Challenges in India-U.K. Defence Relationship:

- Legacy issues, including the historical balancing act of U.K. ties between India and Pakistan, pose challenges.
- Concerns regarding British motives arise from simultaneous weapons supply to both India and Pakistan or curbing exports.
- Difficult issues related to Khalistan and Sikh separatism may impact the relationship.

## **Shifting Strategic Realities:**

- Changing geopolitical landscape with the emergence of China as a major naval power in the Indian Ocean Region (IOR).
- The rationale for closer defence ties between the U.K. and India is to counterbalance China's expanding naval deployments.
- Joint military exercises and deepening defence-industrial cooperation are underway.
- British commitment to deploying a littoral response group in 2024 and a carrier strike group in 2025 to enhance interoperability with the Indian Navy.

**Nut Graf:** Defense Minister Rajnath Singh's recent U.K. visit after 22 years marks a pivotal moment in India-U.K. defence ties. Focused on addressing India's naval shortcomings, the collaboration centres on electric propulsion technology. Despite historical challenges, the strategic partnership gains momentum amid evolving geopolitical dynamics in the Indo-Pacific.

## 20.Why are conflicts spreading in West Asia?

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

Mains: Spreading Conflicts in West Asia

**Context:** The ongoing conflicts in West Asia, sparked by the Israel-Hamas war, have escalated into a regional security crisis involving various actors. The situation is marked by a complex web of military actions, retaliations, and geopolitical dynamics.

## Israel-Hamas War Spillover:

- Originating from a cross-border attack by Hamas, the Israel-Gaza conflict has spilt over into a wider regional crisis.
- Hezbollah's involvement, firing rockets in solidarity, triggered exchanges with Israel, avoiding a full-scale war.
- Iran-backed militias, including the Houthis, have opened new fronts, attacking commercial vessels in the Red Sea.

## **Multiple Fronts and Players:**

- The conflict involves Hezbollah, Kataib Hezbollah, Hashad al-Shabi, Houthis, Iran, Pakistan, and the United States.
- Hashad al-Shabi attacks against U.S. troops led to U.S. airstrikes in Yemen, while Israel targeted multiple locations in Syria and Lebanon.

## **Key Players:**

- Israel asserts its right to attack Gaza with U.S. support, aiming to dismantle Hamas and secure the release of hostages.
- Iran supports anti-Israel non-state actors like Hamas, Hezbollah, Islamic Jihad, Houthis, and Shia militias in Iraq and Syria.
- The U.S. aims to ensure Israel's security, protect American interests in the region, and maintain the U.S.-led order.

## Widespread Security Crisis:

- Unlike past conflicts, the current crisis involves both powerful states and non-state actors, destabilizing the entire region.
- The old order, where the U.S. held a dominant presence, is disrupted, with Iran-backed proxies directly challenging Israeli and American positions.

## Shift in Geopolitical Dynamics:

• The crisis signals a departure from the historical U.S.-led order, with Iran actively engaging in cross-border attacks and challenging red lines.

## Way Forward

- **Current Unstable Situation:** The conflict, lasting more than 100 days, shows no signs of deescalation, posing a challenge to regional stability.
- Unclear Resolution Path: Israel's objectives in Gaza remain unmet, and a clear resolution path is elusive. U.S. airstrikes and attacks on Shia units have not deterred attacks, contributing to the overall instability.

**Conclusion:** Despite the ongoing crisis, the Saudi-Iran detente and the Saudi-Houthi peace offer a slight silver lining amid the escalating chaos. However, the overall outlook remains uncertain, and the future trajectory of the crisis is unpredictable.

**Nut Graf:** The polycentric crisis in West Asia, triggered by the Israel-Hamas war, has evolved into a regional security challenge with far-reaching consequences. The absence of a clear resolution path, coupled with the involvement of major players, poses a threat to stability.

## **21. A** revival of the IMEC idea amid choppy geopolitics

Syllabus: Effect of Policies and Politics of Developed and Developing Countries on India's interests

Mains: Hindrance in the success of IMEC and possible solution

## **Background: Yemen Conflict and Suez Canal Concerns**

- The Yemen conflict has raised doubts about the reliability of the Suez Canal for east-west trade.
- Shippers are considering alternative routes, favouring the India-Middle East-Europe Economic Corridor (IMEC).

## IMEC's Resurgence Amid Geopolitical Challenges:

- Seshadri Vasan, Director-General of the Chennai Centre for China Studies, sees the Yemen conflict strengthening the case for IMEC.
- Critics argue that political complexities, especially post-Gaza war, may hinder major trade links between Saudi Arabia and Israel.

## IMEC Core Route: Al Haditha to Haifa

- IMEC's central objective is connecting Al Haditha in Saudi Arabia to Haifa in Israel.
- Ongoing rail projects in UAE and Saudi Arabia, such as Etihad Rail and GCC Railway, align with IMEC's goals.

## Geopolitical Hurdles and Shifting Dynamics in West Asia:

- Harsh Pant, Vice-President of Studies at the Observer Research Foundation, anticipates a transformed West Asia post-Gaza war.
- Turkey expresses displeasure at being excluded from IMEC, proposing an alternative route through Iraq.

## Trump's Potential Influence and Hydrogen Integration:

- Harsh Pant notes that IMEC could align with a business-focused Trump presidency.
- IMEC aims to carry hydrogen pipelines, positioning Gulf nations in the evolving hydrogen economy.

## Containerisation and Economic Benefits for India:

- IMEC's inclusion of containerisation through rail and road is advantageous for India's trade goals.
- India's National Logistics Policy targets reducing logistics costs to global levels by 2030.

## **Optimizing Container Movement in India:**

- Ennarasu Karunesan suggests an optimal split of container movement: 30% road, 30% rail, and the rest via coastal and inland shipping.
- Dedicated rail freight corridors linking to Mundra and JNPT will support IMEC's objectives.

## Southern India's Role and Potential Leveraging of IMEC:

- IMEC could benefit southern India by cutting delivery schedules by 40% with dedicated freight corridors.
- Haifa's capacity expansion, synced with Adani-owned Mundra, is crucial for IMEC's success.

## Financing and Implementation: A Global Partnership

- Ammar Malik, leading the Chinese development finance program for the Belt & Road Initiative, envisions U.S., European, and Saudi financing for IMEC.
- The U.S. International Development Finance Corporation funding for the Adani Ports-owned Colombo terminal could serve as a template for Haifa.

**Nut Graf:** The Yemen conflict prompts a reconsideration of the Suez Canal's reliability, boosting the case for the India-Middle East-Europe Economic Corridor (IMEC). Geopolitical challenges, potential Trump influence, containerization benefits, and global financing underscore IMEC's significance amid shifting dynamics in West Asia.

## 22.Argentina rejects BRICS membership

**Context:** Argentine President Javier Milei has formally rejected an invitation for Argentina to join the BRICS group, consisting of Brazil, Russia, India, China, and South Africa. The rejection comes amid the bloc's expansion, admitting six new members, including Argentina, with membership scheduled to commence on January 1, 2024. President Milei, known for his libertarian stance, expressed that the current time is not suitable for Argentina's participation in BRICS.

## **Issues at Hand:**

- **BRICS Expansion:** The BRICS bloc, seeking to counter the Western-led global order, announced the admission of six new members, including Argentina. However, President Milei's rejection raises questions about the alignment and priorities of Argentina's foreign policy.
- **Resounding Political Shift:** President Milei's recent electoral victory marked a significant departure from Argentina's traditional political parties. The rejection of BRICS membership underscores a shift in the country's geopolitical stance.
- **Differing Foreign Policy:** President Milei's letters to BRICS leaders emphasize that Argentina's foreign policy under his administration differs significantly from the previous government. This indicates a reassessment of decisions made by the previous administration.
- Alignment with the U.S. and Israel: During his election campaign, President Milei asserted that Argentina's geopolitical alignment is with the United States and Israel, expressing a reluctance to ally with communist nations.

## Solutions and Future Steps:

- **Clarity in Foreign Policy:** President Milei's administration should provide clarity on the specific aspects of Argentina's foreign policy that differ from the previous government. Clear communication will help manage international expectations.
- **Diplomatic Engagement:** Despite ideological differences, engaging diplomatically with BRICS nations on common interests and concerns can ensure that Argentina maintains cordial relations and explores opportunities for collaboration.
- **Balancing Alliances:** While expressing alignment with the U.S. and Israel, President Milei should carefully balance diplomatic relationships with other nations, acknowledging the importance of diverse partnerships in international affairs.

#### 23.A closer look at Myanmar's discontent

Syllabus: Effect of Policies and Politics of Developed and Developing Countries on India's Interests

Mains: India needs to reassess its Myanmar policy in the backdrop of continuing Military Rule

Introduction: The Aftermath of the 2019 Coup

- February marks three years since the Myanmar military seized power, overthrowing the democratically elected government led by Aung San Suu Kyi.
- The coup triggered a massive civil disobedience movement and the formation of a National Unity Government with the People's Defence Forces (PDFs).

## **Escalation of Armed Resistance:**

- Ethnic armed organizations, including the Arakan Army, Myanmar National Democratic Alliance Army, and Ta'ang National Liberation Army, launched coordinated attacks last October.
- Significant losses were inflicted on the military, leading to territorial control shifts in regions like Shan State and Paletwa Town.

## National Unity Failure: Military's Inability to Strengthen Unity

- The military's objective to strengthen national unity has backfired, evidenced by the significant territorial concessions to ethnic armed groups and PDFs.
- Historical context: The military has previously lost and regained ground, but the current situation is different due to widespread popular discontent.

## **Reasons for Territorial Loss: Beyond Military Incapacity**

- The military's loss of territory is not solely due to incapacity; reports indicate challenges in recruiting from Bamar-dominated regions.
- Sporadic reports of government officials, doctors, and police supporting the resistance, while military personnel surrender to armed groups.

## **China's Strategy to Protect Interests**

- China defends the Myanmar military internationally, while ethnic armed organizations on the northern border maintain close relations with China.
- Rumours suggest China used the ethnic alliance to address online scams, leading to a ceasefire agreement between rebels and the Myanmar army.

## **ASEAN's Response and Regional Dynamics:**

- ASEAN's five-point consensus and exclusion of Myanmar's military from summits.
- Limited impact: ASEAN's special envoy faces challenges in engaging with relevant stakeholders, and some ASEAN members are becoming more critical of the coup.

## **Thailand's Influence and Engagement:**

- Thailand, with a significant border, wields influence in Myanmar.
- Engagement with both military leadership and Aung San Suu Kyi, along with efforts to assist displaced communities and engage with exile organisations.

## India's Role and Potential Policy Shift:

- India's proactive humanitarian approach could provide relief to displaced communities and reduce refugee inflow.
- Recognition of three political realities: persistent discontent, resilient resistance to the coup, and a politically fragmented Myanmar.
- Suggestion for India to re-calibrate its Myanmar policy in consultation with relevant stakeholders.

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**Nut Graf:** Three years post-coup, Myanmar grapples with escalating armed resistance, territorial losses, and deepening discontent. China employs a multi-layered strategy, ASEAN's response is limited, while India is urged to consider a proactive humanitarian approach and reassess its Myanmar policy.

## 24. Analysing China's ties with Africa

Syllabus: Effect of Policies and Politics of Developed and Developing Countries on India's Interests

Mains: Rising China's influence in Africa

## Chinese Minister of Foreign Affairs Wang Yi's Africa Trip:

- Countries Visited: Egypt, Tunisia, Togo, Ivory Coast.
- **Purpose:** Implementation of China-Africa Leaders Dialogue outcomes, fostering economic and security cooperation, and preparing for the Forum on China-Africa Cooperation 2024 (FOCAC).
- **Key Initiatives:** Support for Africa's industrialization, agricultural modernization, and talent development.

## **Historical Context of China-Africa Relations:**

- Origin: Dating back to the 1950s, with Chinese support for African liberation movements during the Cold War.
- UN Security Council Seat: Africa played a crucial role in China acquiring its seat in the UN Security Council in the 1970s.
- Shift in Focus: From ideological support to investment in 1999 under the "Go Out Policy."
- FOCAC: First held in 2000, marking the evolution from trade to aid to mutual security assistance under Xi Jinping.
- Belt and Road Initiative (BRI): Launched in 2013, enhancing connectivity with 52 African countries.

## China's Objectives in Africa:

- **Resource Access:** Securing key resources such as Cobalt, Platinum, and Coltan, is vital for China's tech industry.
- **Geopolitical Influence:** Leveraging Africa's position as the largest bloc in the UN General Assembly for support on international issues.
- **Currency Promotion:** Encouraging the use of the Chinese Yuan (RMB) in trade and investments, offering financial incentives.
- **Commercial Opportunities:** Tapping into Africa's markets for finished goods, exploiting a young population and affordable labour.

## Implications for Africa:

- **Economic Benefits:** Significant investment, trade, and development aid from China in exchange for natural resources.
- Foreign Direct Investment (FDI): China emerges as a major source, contributing to infrastructure development and industrial parks.
- Agricultural Advancements: Chinese support in advancing hybrid crops aids Africa's agricultural sector.
- 'Win-Win' Partnership: Perceived as a mutually beneficial relationship with high levels of trust.
- **Non-Interference Policy:** China's approach contrasts with the West, offering African countries opportunities without political conditionality.
- **Debt Concerns:** Western countries fear of Chinese investments being predatory and leading to debt traps, although some countries have manageable debt arrangements.
- **Authoritarian Regimes:** Chinese non-interference rhetoric provides space for certain authoritarian regimes to maintain power.



**Nut Graf:** Chinese Foreign Minister Wang Yi's recent African tour aimed at implementing outcomes from the China-Africa Leaders Dialogue, emphasizing economic and security cooperation. Rooted in a historic relationship, China seeks resources, geopolitical influence, currency promotion, and commercial opportunities in Africa, fostering economic development and facing scrutiny over debt concerns.



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# **SCIENCE AND TECHNOLOGY**

#### 1. Radiocarbon dating

Syllabus: GS 3, Science and Technology

Prelims: About Radiocarbon dating

## Radiocarbon Dating: Unveiling the Technique

- Radiocarbon dating, introduced by Willard Libby in the 1940s, utilises carbon-14, created in the Earth's atmosphere by cosmic rays interacting with nitrogen-14, with a half-life of around 5,000 years.
- Libby suggested dating organic materials, assuming a steady atmospheric concentration and diffusion into ecosystems.

## **Operational Mechanism: How Radiocarbon Dating Works**

- Living organisms exchange carbon, maintaining a carbon-14 equilibrium with their surroundings.
- When these activities cease upon death, the predictable decay of carbon-14 enables scientists to estimate the time since death.
- Libby and James Arnold validated this technique in the late 1940s by accurately dating knownage objects such as redwood trees and an Egyptian pharaoh's funerary boat.

## Tools of the Trade: Geiger Counters to Accelerator Mass Spectrometry

- Libby initially utilised Geiger counters for radioactive decay research, and the 'anti-coincidence counter' increased precision by reducing background radiation.
- Modern radiocarbon dating employs advanced tools like Accelerator Mass Spectrometry (AMS) for enhanced sensitivity, allowing the dating of samples as small as 50 mg.

## **Evolution of Radiocarbon Dating: Impact on Science**

- Radiocarbon dating, labelled the "radiocarbon revolution" by the American Chemical Society, introduced the first objective dating method for organic remains.
- This technique transformed archaeology and geology, offering scholars a measurable view of the past.
- Its impact extends to shaping insights into human migration, civilizations, languages, religions, human-animal interactions, and Earth's climate fluctuations.

## **Political and Scientific Significance in India**

- In India, radiocarbon dating holds political significance, often invoked to date objects from temples and mosques.
- Ongoing research and advancements contribute to the technique's reliability and applicability in diverse contexts.

## 2. The blood management system needs a fresh infusion

**Syllabus:** Science and Technology – developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and development of new technology.

Mains: India's Health Infrastructure – Public-Private Partnership in Health Sector

**Context:** The COVID-19 pandemic has highlighted global health disparities, prompting a call for improved international health structures. The article emphasizes the significance of prioritizing access to blood and its products for building a resilient global health architecture.

## Issues:

- The World Health Organization (WHO) reports global disparities in blood collection, with certain regions, particularly in Africa and low-income countries, facing significant shortages.
- Despite progress, India still grapples with a chronic shortage of blood units, impacting crucial healthcare services and putting lives at risk.
- Inefficient blood management contributes to wastage, with millions of blood units discarded due to expiration or contamination over a three-year period.

## Significance:

- Blood plays a crucial role in medical scenarios such as surgeries, emergency procedures, and treatment for conditions like cancer and thalassemia.
- Addressing blood shortages is essential for the functioning of healthcare systems and can significantly contribute to saving lives, impacting accident victims, heart surgeries, and bone marrow transplants.
- Public-private partnerships and innovative models, like the hub-and-spoke approach, can enhance blood availability and distribution, particularly in resource-constrained settings.

## Way Forward:

- Establish robust public-private partnerships to introduce innovative blood collection and distribution models, addressing existing challenges.
- Implement the hub-and-spoke model to optimize blood utilization, streamline distribution, and improve accessibility, especially in geographically challenging areas.
- Dispel myths and misinformation around voluntary blood donation through targeted awareness campaigns, leveraging social media and creative tools.
- Encourage proactive industry engagement and citizen participation to strengthen the overall blood management ecosystem.

**Nut Gruf:** Prioritizing access to blood and its products is fundamental for building a resilient global health architecture. Addressing global disparities, implementing innovative models, dispelling myths, and fostering collaboration are crucial steps to strengthen the blood management system, ensuring its effectiveness in saving lives and supporting healthcare needs.

## Anti-microbial resistance – 55% of patients given antibiotics only as a preventive measure, says survey

**Syllabus:** Science and Technology – developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and development of new technology.

**Mains:** Issues relating to the development and management of Social Sector/Services relating to Health

**Context:** A Health Ministry survey reveals that 55% of nearly 10,000 patients were given antibiotics as a preventive measure rather than for treatment, raising concerns about the growing resistance to antibiotics. The survey, conducted by the National Centre for Disease Control (NCDC) at 20 tertiary-care institutes across 15 States and two Union Territories, took place between November 2021 and April 2022.

## What is Antimicrobial Resistance (AMR)?

Antimicrobials – including antibiotics, antivirals, antifungals, and antiparasitics – are medicines used to prevent and treat infectious diseases in humans, animals and plants.

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites no longer respond to antimicrobial medicines. As a result of drug resistance, antibiotics and other antimicrobial medicines



become ineffective and infections become difficult or impossible to treat, increasing the risk of disease spread, severe illness, disability and death.

AMR is a natural process that happens over time through genetic changes in pathogens. Its emergence and spread are accelerated by human activity, mainly the misuse and overuse of antimicrobials to treat, prevent or control infections in humans, animals and plants.

Antimicrobial resistance (AMR) is among the top ten public health threats according to WHO.

## Issues:

- **Preventive Antibiotic Use:** Over half of the surveyed patients received antibiotics for prevention rather than treatment, contributing to concerns about antimicrobial resistance (AMR).
- Lack of Confirmatory Diagnosis: 94% of patients were prescribed antibiotics before a definitive medical diagnosis of the infection's cause, leading to empirical therapy based on the doctor's clinical experience.
- Wide Variations in Prescription Practices: The survey reveals significant variations between hospitals, with antibiotics prescribed to 37-100% of patients.
- Inappropriate Antibiotic Classes: A significant portion of antibiotic prescriptions falls under the Watch group, prone to antibiotic resistance, while only 2% are from the Reserve group, classified as a last resort.

## Alarming Statistics from Antibiotic Use Survey

- **Overprescription in Tertiary-Care Hospitals:** More than 70% of patients in tertiary-care hospitals across 15 States and two Union Territories were prescribed antibiotics.
- **Potential for AMR:** Over 50% of the prescribed antibiotics have the potential to cause Antimicrobial Resistance (AMR).
- Preventive Prescription Practices: 55% of patients were prescribed antibiotics as prophylaxis, while only 45% received antibiotics for treating infections, with a mere 6% based on specific bacterial identification.

## Understanding Antimicrobial Resistance (AMR)

- **Pathogen Evolution:** AMR occurs as pathogens evolve and become resistant to antimicrobial drugs.
- **Contributing Factors:** Unsound medical practices and misuse of antimicrobials in medical and animal husbandry exacerbate the development of drug-resistant pathogens.
- **Global Impact:** According to the World Health Organization (WHO), bacterial AMR directly caused 1.27 million global deaths in 2019 and contributed to 4.95 million deaths.

The National Centre for Disease Control (NCDC) is the nodal agency for India's national programme on AMR containment, of which one of the key components is the surveillance of antibiotic usage. The institute is under the administrative control of the Director General of Health Services, Ministry of Health and Family Welfare, Govt. of India.

## India's effort:

India launched the National Programme on AMR Containment in 2013 and the National Action Plan on Antimicrobial Resistance in 2017. One of the strategic priorities has been to optimise the use of antimicrobials. To achieve this objective, the National Centre for Disease Control coordinates antibiotic surveillance through the National Antimicrobial Consumption Network (NAC-NET) comprising 35 tertiary healthcare institutions.

## **Urgent Measures Required**

- **Rational Prescription Practices:** Infectious disease specialists and critical-care experts emphasize the need for rational prescription of antibiotics.
- **Curbing Unnecessary Use:** Strict regulations on the use of drugs to promote growth in animals and plants are essential.

- **Research and Development Crisis:** Acknowledging the antibiotic research and development pipeline crisis, urgent measures are required to develop new drug candidates.
- Equitable Access: Ensuring more equitable access to new antibiotics is crucial in the fight against AMR.

# Role of Stakeholders

- **Government Regulation:** The government plays a crucial role in regulating the use of antimicrobials and implementing policies to address AMR.
- **Doctor's Responsibility:** Healthcare professionals, especially doctors, must adhere to rational prescription practices.
- **Patient Awareness:** Patients need to be educated about the consequences of demanding immediate relief and the importance of following prescribed treatment plans.

# Way Forward:

- **Global Point Prevalence Surveys:** Adopt global point prevalence survey methodology to understand and monitor antibiotic prescribing patterns in hospitals over time.
- National Antibiotic Consumption Network (NAC-NET): Strengthen the surveillance of antibiotic usage through the NCDC's NAC-NET to compile data on antibiotic consumption and identify areas of concern.
- Education and Awareness: Launch targeted awareness campaigns to educate healthcare professionals and the public about appropriate antibiotic use, emphasizing the risks of resistance.
- **Guidelines and Regulations:** Develop and implement guidelines and regulations to ensure the judicious use of antibiotics, particularly addressing preventive prescriptions.
- Regular Monitoring and Feedback: Establish a systematic monitoring and feedback mechanism for hospitals to track and improve antibiotic prescribing practices.

**Nut Gruf:** The survey underscores the prevalence of preventive antibiotic use, lack of confirmatory diagnosis, and wide variations in prescription practices, contributing to concerns about antibiotic resistance. The need for global surveys strengthened by national networks, education, guidelines, and monitoring emerges as essential for addressing the critical issue of antimicrobial resistance and preserving the efficacy of antibiotics.

## 4. The problem with India's science management

**Syllabus:** GS-3, Developments in Science and Technology, Applications of scientific developments in everyday life

## Mains: Issues with India's science management

**Context:** India's pursuit of sustained economic progress relies heavily on scientific advances translated into deployable technologies. Recognizing this, the government is revamping the science establishment, with initiatives like the National Research Foundation (NRF) and restructuring the Defence Research and Development Organisation (DRDO). However, a critical examination of the current administrative capabilities is crucial to optimize efficiency and resilience in Indian science.

## Low Expenditure on Research and Development

- **Inadequate Funding:** India's low research and development expenditure (0.7% of GDP) hampers scientific outcomes.
- **Need for Wise Allocation:** Given the low budget, prioritizing high-impact projects becomes pivotal for scientific progress.

#### Failures in Space Program and Nuclear Energy

- **Diminished Space Program:** ISRO ranks eighth globally in launch numbers, indicating a decline in technological leadership.
- **Missed Opportunities in Nuclear Energy:** Lagging in small modular reactors and unrealized thorium ambitions showcase setbacks in nuclear energy.

#### **Challenges in Critical Science and Technology Themes**

- **Alarming Situation:** Genomics, robotics, and artificial intelligence lack strategic direction and organizational efficiency.
- Inconsistent Management: The administration's inconsistency is inappropriate for the crucial role science must play.

## **Dominance of Public Sector and Administrative Issues**

- **Bureaucratic Hurdles:** Government bureaucracy causes delays in crucial funding and equitable decision-making.
- Lack of Long-Term Commitment: The inability to commit to long-term funding for critical projects poses a significant challenge.

#### **Outsized Role of Senior Scientists**

- **Centrality of Scientists:** Senior scientists play a defining role in India's science administration.
- **Mismatched Skill Sets:** Good scientists may not possess the necessary administrative skills required for effective science management.
- **Conflicts of Interest:** Academic roles within administrative positions lead to conflicts of interest, affecting the overall quality of science administration.

#### **Historical Context and Institutional Capture**

- **Gatekeepers and Monopoly:** Historical concentration of equipment led to gatekeepers controlling power, patronage, and appointments.
- **Oppressive Network:** Scientists indebted to gatekeepers perpetuate conflicts and hinder genuine scientific outcomes.
- **Need for Change:** As India remoulds its scientific establishment, a reassessment of the role of scientists in administration is essential.

#### Way forward

- **Separation of Roles:** Advocate for the separation of administrative and scientific roles within science establishments.
- All-India Science Administration Central Service: Consider adopting a system similar to the U.S., where scientists are selected and trained in a dedicated science administration central service.
- **Training Programs:** Establish training programs to groom administrators separately, emphasizing skills like tact, realism, flexibility, and firmness.

**Nut Graf:** The current state of India's science management demands a paradigm shift. The separation of administrative and scientific roles, along with dedicated training programs, can foster a more efficient and resilient science establishment. Without addressing these core concerns, India's aspirations in economic and strategic domains through scientific progress will face ongoing challenges.

#### 5. Can malaria vaccine rollout be scaled up?

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**Syllabus:** Developments in Science and Technology, Applications of scientific developments in everyday life

Prelims: Malaria vaccine

Mains: Issues in scaling up of malaria vaccine

**Context:** The global effort to combat malaria has taken a significant step with Cameroon becoming the first country to include the RTS, S malaria vaccine in routine immunization for children. This milestone follows pilot programs in Ghana, Kenya, and Malawi, with plans for twenty more countries to implement the vaccine this year. However, challenges such as the highest malaria burden in certain regions, India's substantial contribution to malaria cases, and the impact of climate change on disease transmission pose critical considerations.

#### Issues

## 1. Global Malaria Burden

- High Incidence: Malaria remains a significant threat globally, especially to children under five, with over 30 countries facing moderate to high transmission.
- Regional Disparities: Africa accounts for 94% of cases and 95% of global malaria deaths, while India, within the WHO South-East Asia Region, contributes 66% of malaria cases.

## 2. RTS, S Malaria Vaccine

- UNICEF Initiative: The vaccine rollout is part of a UNICEF initiative, with British multinational GSK receiving the contract for the first-ever supply.
- Funding: UNICEF's initiative is funded with a contract value of up to \$170 million, leading to the availability of 18 million doses over three years.

## 3. Manufacturing and Supply

- Serum Institute of India: The anticipated rollout of a second jab (R21) by Oxford University will be manufactured by the Serum Institute of India, targeting 100 million doses annually.
- Dose Schedule: The vaccine requires a four-dose schedule for children around five months of age, with a potential fifth dose after one year in areas with persistent malaria risk.

## 4. Challenges and Climate Change

- Malaria and Climate Change: Climate change emerges as a major driver affecting malaria transmission and burden.
- Regional Vulnerabilities: Regions like eastern India, hill tracts of Bangladesh, parts of Myanmar, and Indonesian Papua face heightened vulnerability due to rising temperatures and changing climate conditions.

## Significance

## 1. Global Health Impact

- Lifesaving Potential: The vaccine marks a crucial step in preventing and mitigating the impact of malaria, particularly in high-risk areas.
- Equal Access: GAVI and other organizations aim to provide equal access to the vaccine for children in the world's poorest countries.

## 2. India's Malaria Strategy

- Contribution to Global Burden: Despite a 55% reduction in cases since 2015, India remains a substantial contributor to the global malaria burden.
- National Vision: India envisions a malaria-free country by 2027 and elimination by 2030, necessitating comprehensive strategies.

## Solutions

## 1. Structured Vaccine Rollout

- Prioritization: The rollout should prioritize areas with highly seasonal or perennial malaria transmission, considering age-based or seasonal administration approaches.
- Collaborative Efforts: Cooperation between countries and international organizations is crucial for effective vaccine distribution and implementation.

## 2. Climate-Resilient Responses

- Sustainable Approaches: Climate change poses challenges and responses to malaria need to be sustainable and resilient.
- Regional Adaptation: Regions vulnerable to climate change impacts on malaria should adapt prevention and treatment strategies accordingly.

## 3. Global Collaboration

- Research and Development: Continued investment in research and development for improved vaccines and malaria control interventions.
- Knowledge Sharing: Collaboration on best practices, data sharing, and joint efforts to combat climate change-driven challenges.

## **Global Initiatives Against Malaria**

## WHO's Global Malaria Program(GMP):

- The WHO's GMP is responsible for coordinating WHO's global efforts to control and eliminate malaria.
- Its work is guided by the "Global Technical Strategy for Malaria 2016–2030" adopted by the World Health Assembly in May 2015 and updated in 2021.
- The strategy sets the target of reducing global malaria incidence and mortality rates by at least 90% by 2030.

## Malaria Elimination Initiative:

- Spearheaded by the Bill and Melinda Gates Foundation, this initiative focuses on eradicating malaria through diverse strategies such as treatment accessibility, mosquito population reduction, and technology development.
- E-2025 Initiative: The WHO launched the E-2025 initiative in 2021. The initiative aims to stop the transmission of malaria in 25 countries by 2025.
- The WHO has identified 25 countries that have the potential to eradicate malaria by 2025.

## Indian Initiatives Against Malaria

- National Framework for Malaria Elimination 2016-2030: Aligned with WHO's strategy, aims to eliminate malaria across India by 2030 and maintain malaria-free zones.
- National Vector-Borne Disease Control Programme: Addresses various vector-borne diseases, including malaria, through prevention and control measures.
- National Malaria Control Programme (NMCP): To combat the devastating effects of Malaria, the NMCP was launched in 1953 and built around three key activities – insecticidal residual spray (IRS) with DDT; monitoring and surveillance of cases; and treatment of patients.
- **High Burden to High Impact (HBHI) Initiative:** Initiated in four states (West Bengal, Jharkhand, Chhattisgarh, and Madhya Pradesh) in 2019, focusing on malaria reduction through insecticidal net distribution.

**Nut Graf:** The introduction of the malaria vaccine into routine immunization programs is a significant stride in global health. While countries like Cameroon pioneer the rollout, the challenges of high malaria burden, regional vulnerabilities, and the impact of climate change necessitate a comprehensive and collaborative approach.

#### 6. Minimal radioactive discharges from Indian nuclear plants: study

**Syllabus:** Developments in Science and Technology, Applications of scientific developments in everyday life

Mains: Radioactive discharges from Indian nuclear plants

**Context:** A recent study conducted by researchers at the Bhabha Atomic Research Centre (BARC), Mumbai, has analyzed radiological data from six Indian nuclear power plants over two decades (2000-2020). The study concludes that radioactive discharges from these plants have been minimal, prompting discussions about India's commitment to advancing its nuclear power program.

## Issues

## 1. Radiological Data Analysis

- Study Scope: The research covers a 20-year period (2000-2020) and focuses on six nuclear power plants, including Kudankulam, Tarapur, Madras, Kaiga, Rajasthan, Narora, and Kakrapar.
- Concentration Levels: Radioactive discharges beyond a 5 km radius were found to be below the minimum detectable activity, rendering them insignificant for analysis.

## 2. Discharge Components

- Gaseous and Liquid Waste: Nuclear plants release gaseous waste containing fission product noble gases, Argon 41, radioiodine, and particulate radionuclides. Liquid discharge consists of fission product radionuclides and activation products.
- Dilution and Dispersion: Radioactive discharges undergo dilution and dispersion, adhering to strict radiological and environmental regulatory regimes.

## 3. Measurement Parameters

- Alpha Activity in Air Particulates: The average gross alpha activity in air particulates at all plants was less than 0.1 mega becquerel per cubic meter.
- Specific Markers: Radionuclides (iodine-131, caesium-137, and strontium-90) concentrations were below regulatory limits in air particulates, rivers, lakes, and seawater.

## 4. Tritium Detection

Tritium Presence: Tritium was detectable at all sites except the Kudankulam Nuclear Power Station, with relatively higher concentrations at the Rajasthan Atomic Power Station.



## Source: The Hindu

## Significance

- 1. Reinforcing India's Commitment
  - **Potential Significance:** The findings hold potential significance for reinforcing India's commitment to advancing its nuclear power program, showcasing minimal environmental impact.
- 2. Safety and Compliance
  - **Regulatory Compliance:** The total doses from the nuclear power plants are reported to be below regulatory limits, ensuring safety for the public.
  - ALARA Principle: Efforts are underway at specific sites to keep doses "as low as reasonably achievable" (ALARA), even though they remain within regulatory limits.
- 3. Environmental Impact Assessment
  - **Environmental Monitoring:** The study emphasizes the importance of continuous monitoring to assess environmental impact and adherence to regulatory standards.

## Solutions

- 1. Continuous Monitoring
  - **Periodic Assessments:** Regular radiological assessments and monitoring should continue to ensure ongoing compliance with safety standards.
  - Advanced Monitoring Techniques: Invest in advanced monitoring techniques to enhance the precision and reliability of environmental impact assessments.
- 2. Technology Upgradation
  - Adopting Advanced Reactor Technologies: Consider adopting advanced reactor technologies that may reduce specific emissions and further enhance safety.
  - **Research and Development:** Invest in research and development for technologies that minimize radioactive discharges.
- 3. Public Awareness and Engagement
  - **Transparent Communication:** Maintain transparent communication with the public regarding the safety measures and low environmental impact of nuclear power plants.
  - **Community Engagement:** Involve local communities in the monitoring and assessment processes to build trust and ensure collective well-being.

**Nut Graf:** The study's conclusion that radioactive discharges from Indian nuclear plants have been minimal is a positive affirmation of India's commitment to nuclear power. The significance lies in the continuous adherence to regulatory standards and the ongoing efforts to keep doses as low as reasonably achievable.

## 7. Improving battery technologies for speedy EV adoption

**Syllabus:** Developments and their Applications and Effects in Everyday Life; Indigenization of Technology and Developing New Technology.

Mains: Emerging Technologies and applications

**Introduction:** The surge in Electric Vehicles (EVs) in India marks a pivotal moment in the country's automotive landscape. In 2023, EV sales skyrocketed by 50% compared to the previous year, albeit constituting only 6% of total vehicle registrations.

Despite modest current volumes, the Indian EV market is poised for extraordinary growth, projected to reach a staggering \$100 billion valuation by 2030.

## Critical role of battery technology in the EVs:

- At the heart of this transformative shift lies the critical role of battery technology, constituting 40% of an EV's total cost.
- Lithium-ion batteries reign supreme in the EV domain, harnessing lithium's lightweight nature and high electron release capacity.
- However, while Li-ion batteries offer numerous advantages, they also present challenges.

- Their energy density falls short of petrol, and charging times remain relatively slow.
- Addressing these limitations requires innovative approaches spanning electrode optimization, battery management system (BMS) enhancements, and paradigm-shifting innovations like Solid-State Lithium Batteries (SSBs).

## India's commitment towards greener future and role of battery technology:

The quest for better battery technology mirrors India's broader commitment to sustainable mobility and environmental stewardship. As the nation seeks to reduce its carbon footprint and mitigate air pollution, the transition to EVs emerges as a pivotal strategy. In this context, advancing battery technology assumes paramount importance, enabling EVs to offer longer ranges, faster charging, and enhanced safety features.

## India's conducive ecosystem for EV innovation:

- It fosters collaboration among industry players, government bodies, and research institutions. The supportive regulatory framework, coupled with incentives and subsidies, incentivizes investment and innovation in EV battery technology.
- Moreover, homegrown EV companies like Ather and Ola Electric exemplify India's burgeoning EV ecosystem, driving adoption and innovation in the sector.
- The semiconductor industry, including major players like Texas Instruments, contributes advanced sensors and processors crucial for powering next-generation BMS solutions. Additionally, premier research institutions and government labs engage in fundamental research, fostering breakthroughs in battery technology.

## Way forward:

For entrepreneurs and researchers alike, battery technology emerges as a promising frontier ripe with opportunities. The pursuit of cutting-edge advancements in battery technology not only accelerates India's transition to sustainable mobility but also positions the nation as a global leader in the EV revolution. As stakeholders across industries collaborate to propel the EV ecosystem forward, the future of mobility in India appears increasingly electrifying.

# **DEFENCE AND INTERNAL SECURITY**

## 1. Understanding the peace pact with ULFA

Syllabus: GS-3, Role of state and non-state actors in creating challenges to internal security

Mains: The peace pact with ULFA

**Context:** The United Liberation Front of Asom (ULFA) has been a prominent insurgent group in Assam, born out of the Assam Agitation in 1979. The pro-talks faction recently signed a peace deal with the Centre and the Assam government on December 29, 2023. However, challenges persist with the anti-talks faction led by Paresh Baruah, raising concerns about lasting peace in the region.

## Formation of ULFA

- The ULFA emerged as a response to the Assam Agitation, expressing concerns about the potential displacement of indigenous communities by "illegal immigrants" from Bangladesh.
- Formed on April 7, 1979, the group, led by radicals like Arabinda Rajkhowa, Anup Chetia, and Paresh Baruah, aimed to establish a sovereign Assam.
- The organization underwent training in Myanmar, China, and Pakistan before engaging in armed struggle, marked by abductions and executions.

## India's Response

- In 1990, the government launched Operation Bajrang, officially banning ULFA and declaring Assam a disturbed area under the Armed Forces (Special Powers) Act.
- Counter-insurgency operations led to the arrest of numerous ULFA members in the early 1990s. Despite setbacks, ULFA persisted with support from external terror groups and intelligence agencies.

## **Peace Process Initiation**

- Efforts towards peace began with the formation of an 11-member People's Consultative Group in 2005. However, the group's commitment wavered, leading to renewed violence.
- The Rajkhowa-led faction eventually signed a ceasefire agreement with the Centre in September 2011.
- Paresh Baruah, opposed to talks, expelled Rajkhowa in 2012, leading to the formation of the antitalks ULFA (Independent) in April 2013.

## Issues

## Factional Divide

- The pro-talks faction signed a peace accord in 2023, focusing on renouncing violence, disarmament, and participation in democratic processes.
- However, the anti-talks faction, led by Paresh Baruah, remains a significant challenge, operating from hideouts in Myanmar's Sagaing Division.

## • Sovereignty Concerns

- Baruah insists that talks must address the sovereignty of Assam, making negotiations challenging.
- The government emphasizes that secession is not a desire in Assam, but convincing Baruah to engage in meaningful negotiations remains a hurdle.

## Significance

## Comprehensive Peace Accord

• The peace accord outlines a comprehensive plan for the development of Assam, addressing political demands and ensuring territorial integrity. It offers a significant investment of ₹1.5 lakh crore and legislative safeguards to protect indigenous communities.

## Potential for Lasting Peace

• The accord, if effectively implemented, could signify a major step towards peace in Assam. Chief Minister Himanta Biswa Sarma claimed a 90% reduction in extremism post-accord.

## Solution:

#### • Dialogue with Anti-Talks Faction

 Efforts must be intensified to engage Paresh Baruah and the ULFA (I) group in meaningful dialogue. Addressing sovereignty concerns without compromising the unity of the nation is crucial for successful negotiations.

#### Implementation of Accord

• The government needs to demonstrate commitment to implementing the clauses of the accord, ensuring development, safeguarding indigenous rights, and resolving boundary disputes.

**Nut Graf:** The peace pact with ULFA represents a significant development in the quest for peace in Assam. However, challenges persist with the anti-talks faction, and sustained efforts, both in dialogue and implementation, are essential to achieve lasting stability in the region.

## 2. Autumn of the militants

Syllabus: Role of state and non-state actors in creating challenges to internal security

Mains: Significance of United Liberation Front of Asom (ULFA) peace accord

**Context:** The recent developments surrounding the United Liberation Front of Asom (ULFA) reflect an important juncture in the history of Assam. While the pro-talks faction has signed a peace accord with the Union government, another faction remains committed to the 'armed struggle.'

#### Issues

#### • Genesis of ULFA

- Formed in 1979 with the goal of establishing a "sovereign socialist Assam" in response to concerns about the large-scale enrolment of "illegal immigrants" in the electoral rolls.
- ULFA initially recruited individuals with revolutionary zeal during the Assam agitation (1979-1985).

#### • Expansion and Activities

- Established connections with the National Socialist Council of Nagaland (NSCN) and the Kachin Independence Army of Myanmar for training and arms.
- Set up camps in Bangladesh and Bhutan, becoming instrumental in arms shipment.
- Carried out subversive activities, triggering counter-insurgency measures and the imposition of President's Rule in 1990.

## • Shifts and Setbacks

- ULFA's reign of terror continued despite counter-insurgency operations and arrests in the early 1990s.
- Formation of the Surrendered ULFA (SULFA) led to alleged state-sponsored secret killings (1998-2001).
- Ejection from Bhutan in 2003 and subsequent relocation to Bangladesh marked a significant setback.

#### • Attempts at Peace

- Initiatives for peace, including mediation by the People's Consultative Group in 2005, which proved unsuccessful.
- Weakened by the expulsion from Bhutan, ULFA leaders signed a ceasefire agreement in 2011, dividing into pro-talks and hardline factions.
- The pro-talks faction signed a peace accord in 2023, termed "historic" by Assam Chief Minister Himanta Biswa Sarma.

# Significance

- The peace accord is seen as a significant milestone, bringing an end to 90% of extremism in Assam.
- The unresolved conflict with the ULFA (Independent) faction led by Paresh Baruah, operating from the Myanmar-China border, poses challenges to lasting peace.
- Ongoing recruitment and low-intensity blasts by ULFA (I) indicate persistent appeal and potential threats.

## ULFA peace accord

- 1. **Development Measures:** These include provisions for various developmental projects and a commitment to resolving long-standing issues. The government has pledged investment of ₹1.5 lakh crore, staggered through the years.
- 2. Political Inclusion: The agreement addresses the issue of political insecurity among indigenous people, reserving 97 out of 126 seats for them in the recent delimitation exercise. It ensures the continuation of this principle in future delimitation processes, aiming to address political insecurities.
- 3. **Non-Violence:** ULFA has agreed to renounce violence, disarm, disband the armed organization, vacate their occupied camps, and participate in the peaceful democratic process established by law.

**Note:** The agreement was signed with the pro-talks faction of ULFA under Arabinda Rajkhowa while the other faction led by Paresh Baruah (known as ULFA-I) has not joined the peace process.

## Solution:

- Engagement with Paresh Baruah's ULFA (I) is crucial for a comprehensive and lasting peace in Assam.
- Addressing issues related to Assam's sovereignty and incorporating concerns of all stakeholders in the peace process.

**Nut Graf:** The journey of ULFA, from its origins in 1979 to the recent peace accord in 2023, reflects the complex dynamics of insurgency, geopolitical influences, and the challenges of achieving lasting peace. The success of the peace process hinges on inclusive dialogue and addressing the concerns of all factions, especially the ULFA (I), to ensure a stable and harmonious future for Assam.

## 3. A case diary for the Indian police

Syllabus: GS-3, Various Security forces and agencies and their mandates

Mains: Indian police reforms

**Context:** A three-day conference in Jaipur, held in the first week of January 2024, brought together police officers at the Director General of Police level from across India. The conference focused on contemporary issues in Information Technology, indicating the growing importance attached to law enforcement in the country.

## **Public Image and Federal Issues**

## • Public Trust and Confidence

- The police continue to struggle with a dismal public image, even seven decades after India's Independence.
- The lack of a trustworthy guardian organization makes citizens reluctant to seek help from the police unless in extreme distress.

## Federal Discord

- Growing discord between the Centre and Opposition-led States, particularly in the perception of the Indian Police Service (IPS) as a 'permanent irritant.'
- States prefer control over their recruits, leading to potential conflicts with the IPS.

## • Enforcement Directorate (ED)

- The role of the Enforcement Directorate poses challenges for federal governance.
- $\circ~$  Attacks on ED officers in various places create tensions between New Delhi and the States.

# **Technology Integration**

# Tech-Savvy Policing

- Acknowledgement that the police have become more technology-savvy.
- $\circ$   $\;$  Increasing education levels in the lower echelons contribute to this trend.

# Youth Employment and Opportunities

- High unemployment rates drive many to opt for police jobs.
- Concerns about whether constables and sub-inspectors get opportunities to showcase their talent, given the dominance of IPS officers in attention and glory.

# **Restructuring for Quality Policing**

# Hierarchical Restructuring

- Argument against the IPS dominating attention, with a call for restructuring to narrow the gap between higher and lower ranks.
- Emphasis on knowledge, integrity, and empathy for improving the overall image of India's police force.
- Leadership Responsibilities
  - Encouragement for senior police officers to dedicate time to educating and mentoring those at the lowest ranks.
  - Suggestion for DGPs and their subordinates to spend an hour a day teaching lower ranks to expand knowledge and benefit the common man.

## **Politics in Policing**

## Politicization Challenge

- The ongoing challenge of the politicization of the police force.
- The difficulty in resisting illegal political demands while maintaining tactful relations.

## • Autonomy and Independence

 Recognition that ensuring police force autonomy and independence is a complex task tied to broader political changes.

## **Police Reforms in India**

- **The Police Act of 1861:** This Act was brought by the British, following the 1857 revolt and led to a centralised hierarchical structure, mainly to prevent any future revolt.
- National Police Commission (1977-81): The NPC was formed under the Morarji Desai government and recommended measures to improve the efficiency of the police force and bring professionalism. The Commission also recommended that in case of any custodial rape, death due to police firing, or excessive use of force, judicial inquiry should be mandatory.
- **Ribeiro Committee (1998):** This committee recommended setting up Police Performance Accountability Commissions in states and the District Complaints Authority.
- Prakash Singh Guidelines: The Supreme Court of India issued 7 directives to bring police reforms in the Prakash Singh vs. Union of India of 2006. These seven directives included continuing a State Security Commission, fixed tenure of the DGP, a two-year term for SPs and SHOs, separate investigation and L&O functions, setting up of Police Establishment Board, Police Complaints Authority at the state and district level and National Security Commission at the Centre level.
- Model Police Act, 2006: Adhering largely to the precedent established by the Prakash Singh Decision of SC, the Model Police Act was framed by the Soli Sorabjee Committee. The committee submitted its recommendations in 2006, "to enable the police to operate as an efficient, effective, people-friendly, and responsive agency".

**Nut Graf:** The conference in Jaipur reflects the critical need for a comprehensive overhaul of the Indian policing system. Addressing public image issues, federal discord, and the challenges of technology integration, along with hierarchical restructuring and political interference, requires a collaborative effort.

## 4. The delusion of eliminating 'the last terrorist'

Syllabus: Role of External State and Non-state Actors in creating challenges to Internal Security.

Mains: Need for comprehensive efforts to tackle Jammu and Kashmir (J&K) terrorism

#### Introduction:

- The new year in Jammu and Kashmir (J&K) began with a terror strike in Rajouri-Poonch districts, raising concerns.
- The Director General of Police highlighted the increasing numbers of terrorists killed, portraying a positive outlook.
- However, a media report revealed a decline in the number of terrorists killed in 2023, causing worry.
- The Union Home Minister emphasized the need to destroy terror infrastructure, possibly indicating a focus on neutralizing terrorists.

## **Debatable Focus on Eliminating Terrorists:**

- While neutralizing terrorists is crucial, it should not be the sole focus, especially with lower terror indices.
- Obsession with the number of terrorists killed may be debatable in its effectiveness in the mid and long-term.

## Historical Context of Insurgency in Rajouri-Poonch:

- The insurgency peaked in the late 1990s and early 2000s in Rajouri-Poonch, but efforts led to improvement by 2011-12.
- The failure to consolidate gains and a misplaced focus led to a resurgence of instability in the region.

#### The Pitfall of Chasing Numbers:

- The counter-terrorism approach may have won battles by addressing symptoms but at the cost of the overall campaign.
- The focus on numbers persisted despite declining terror-related fatalities, revealing a reluctance to adapt to changing dynamics.

#### **Reluctance to Adapt and People-Centric Approach:**

- Combating insurgencies becomes challenging when terror-related incidents decline.
- The system's reluctance to adapt is driven by factors such as limited tenures, short-term gains, and a desire for recognition.
- Tactical-level operations should be people-centric, winning hearts and minds, but this often takes a backseat to performance imperatives

#### The gap with the Political Process:

- Leadership must bridge the gap between the interests of the people and soldiers, with no contradiction between their requirements.
- Security forces aim to manage conflict and hand over a stable situation for the due political process, but political initiatives have been unprepared and reluctant.

#### Lack of Political Representation in J&K:

- The absence of Assembly representation in J&K since 2018, coupled with a lack of electoral representation at the grassroots level, hampers a whole-of-government approach.
- The objective of eliminating terrorists rather than terrorism may continue to be the ground rule in the absence of comprehensive political initiatives.

## **Conclusion:**

- The need for a balanced approach, adapting to changing dynamics, and incorporating a peoplecentric strategy is essential for long-term stability.
- Political initiatives, along with security measures, are crucial in resolving the complex situation in Jammu and Kashmir.

**Nut Graf:** In Jammu and Kashmir, a recent terror strike prompted security forces to highlight increasing terrorist eliminations. However, a declining trend in such numbers raises concerns, emphasizing the need for a nuanced and adaptable approach beyond a mere focus on eliminating terrorists.

## 5. Delisting Kuki-Zomi Tribes

Syllabus: Role of External State and Non-state Actors in Creating Challenges to Internal Security.

Mains: Reason of Ethnic conflict in Manipur and possible solution

## **Background:**

- The Centre has requested the Manipur Government to examine a representation for delisting certain Kuki and Zomi tribes from the Scheduled Tribes (ST) list.
- Chief Minister N. Biren Singh announced the formation of a special committee to investigate the representation.

## Initiating the Representation:

- Maheshwar Thounaojam, National Secretary of the Republican Party of India (Athawale) in Manipur, submitted the representation.
- The representation seeks the inclusion of Meiteis in the ST list and proposes the exclusion of specific Kuki and Zomi tribes.

## **Ethnic Conflict Context:**

- The move to delist Kuki and Zomi tribes is amid an ongoing ethnic conflict between valley-based Meitei people and hills-based Kuki-Zo (ST) people.
- The conflict began on May 3, 2023, triggered by a Manipur High Court order regarding Meiteis' inclusion in the ST list.

#### Meitei Argument for ST Status:

- Meiteis argue for ST status due to their inability to own land in forested hill districts, reserved for STs.
- This marks the first instance of Meiteis seeking ST inclusion by questioning the legitimacy of certain Kuki and Zomi tribes.

#### **Representation Contents:**

- Thounaojam's representation objects to the inclusion of specific entries in the ST list: "Any Mizo (Lushai) Tribes," "Zou," and "Any Kuki Tribes."
- The primary argument is that these tribes are not indigenous to Manipur, claiming their absence in pre-Independence Censuses.

## Validity of Claims:

- The claim that these communities were not present in Manipur during the 1950 Constitution (Scheduled Tribes) list publication is disputed.
- No empirical evidence supports the assertion that the presence of these tribes aids organised illegal immigration.

#### **Historical Commission Reports:**

- The First Backward Classes Commission in 1955 recommended adding individual tribe names for Assam and Manipur tribes, but "Any Mizo (Lushai) Tribe" was retained in 1956.
- In 1965, the Lokur Commission noted a "splintering tendency" among Kuki tribes and recommended mentioning tribe names in the ST list to address inter-tribe differences.

## **Evolution of Kuki Tribe Classification:**

- Over the years, Kuki tribes exhibited a "splintering tendency," resulting in the establishment of independent tribe names.
- In 2002-2003, "Any Kuki Tribes" was added to the ST list, leading to confusion, as observed by the Bhuria Commission Report in 2002-2004.

#### **Recommendations for Clarity:**

- Historical commission reports recommended mentioning specific tribe names in the ST list to avoid confusion and inter-tribe differences.
- The representation's call for delisting should be examined considering the historical context and the evolving identities of the Kuki and Zomi tribes.

**Nut Graf:** In Manipur, a contentious move to delist certain Kuki and Zomi tribes from the Scheduled Tribes (ST) list sparks ethnic tensions amid an ongoing conflict. The representation, driven by Meitei's demands for ST status, raises historical and identity concerns, risking further community divisions.

6. Reconsidering the free movement regime

Syllabus: GS-3, Security Challenges and their Management in Border Areas

Mains: Time to reconsider the Free Movement Regime

**Introduction:** Home Minister Amit Shah announced the decision to fence the 1,643 km India-Myanmar border and reconsider the Free Movement Regime (FMR) during a passing out parade in Guwahati on January 20, 2024.

#### Historical Background of India-Myanmar Border:

- The boundary between India and Myanmar was established through the Treaty of Yandaboo in 1826 after British forces pushed out Burmese occupiers from the Northeast.
- The border division separated people of the same ethnicity and culture, causing geopolitical challenges.
- The FMR was introduced in 2018 as part of the Act East policy to improve diplomatic ties and counter Chinese influence in Myanmar.

#### Free Movement Regime (FMR):

- The FMR allows people on both sides of the border to travel up to 16 km inside each other's country without a visa.
- Border residents need a border pass valid for a year to stay in the other country for about two weeks per visit.
- FMR aimed to promote localized border trade, and establish customs stations and designated markets while facilitating access to education and healthcare.

#### **Reasons for Reconsideration of FMR:**

- A significant portion of the India-Myanmar border is unfenced, making it susceptible to security challenges.
- Extremist groups operating from clandestine bases in Myanmar have posed security threats to Indian forces.
- Cross-border movement facilitated illegal activities such as drug trafficking and wildlife trafficking.

# **Trigger for Rethink:**

- The conflict between Meitei and Kuki-Zo communities in Manipur in May 2023 intensified concerns over the "influx" of Myanmar nationals.
- Manipur Chief Minister blamed ethnic violence on the free movement of Myanmar nationals and called for an end to FMR.
- The FMR had been suspended during the COVID-19 lockdown in 2020 and extended after the military coup in Myanmar in 2021.

## **Migration Statistics:**

- The civil war in Myanmar led to an increase in people seeking refuge in India, particularly in Manipur.
- Manipur authorities recorded 2,187 Myanmar nationals in 2023, while Mizoram hosted around 40,000 displaced individuals.

## Mizoram and Nagaland's Stance on Fencing and FMR:

- Mizoram's Chief Minister opposes the move to fence the border, emphasising historical ties with the Chin people across the border.
- The Nagaland government has not officially reacted, but the Naga Students' Federation condemned the decision as "regressive," emphasizing the historical claim of Nagas to the territories.

**Conclusion:** The reconsideration of the FMR and the decision to fence the India-Myanmar border is a complex issue with historical, geopolitical, and security implications, leading to varying reactions from different states and communities.

**Nut Graf:** Home Minister Amit Shah's announcement to fence the 1,643 km India-Myanmar border and reconsider the Free Movement Regime (FMR) has sparked controversy. The FMR, introduced in 2018, aimed to enhance ties but faces scrutiny due to security concerns and regional conflicts, especially in Manipur.

## 7. Why is Punjab in court over BSF's powers?

**Syllabus:** Role of state and non-state actors in creating challenges to internal security, Various Security forces and agencies and their mandates

Prelims: BSF powers

Mains: Issues of Border management in India

**Context:** The jurisdictional dispute between the Punjab government and the Centre over the increased powers of the Border Security Force (BSF) has led to a legal battle, with the Punjab government approaching the Supreme Court. The government's decision to extend the BSF's jurisdiction from 15 to 50 kilometres inside the international borders in Punjab, West Bengal, and Assam has ignited controversy, particularly in Punjab.

## Background of the issue

- The Union government passed a notification in October 2021 amending the BSF Act, 1968.
- It extended the jurisdiction of the BSF from 15 km to 50 km from the International Border in Punjab, West Bengal, and Assam.
- In Gujarat, the limit was reduced from 80 km to 50 km. For Rajasthan, it was kept unchanged at 50 km.
- According to the BSF, the decision to extend the jurisdiction of the security force to a 50 km belt along the international border in Punjab, West Bengal, and Assam was taken to 'give uniformity to the jurisdiction' across the states.

#### Issues

- Constitutional Validity Challenge: Punjab has challenged the constitutional validity of the Centre's notification issued in October 2021, invoking Section 139 of the Border Security Force Act, 1968. The notification increased BSF's jurisdiction and is viewed by Punjab as an arbitrary exercise of power by the Centre.
- Violation of Federalism: The Punjab government contends that the notification infringes upon the state's powers as police and law and order are State subjects. The move is seen as a violation of the spirit of federalism enshrined in the Constitution.
- **Geographical Disparity:** Punjab's concerns are unique as its extended jurisdiction area is densely populated and agriculturally fertile. This is in contrast to other states like Gujarat and Rajasthan, where extended areas are sparsely populated or consist of wastelands.
- Impact on Farmers: The 50-km jurisdiction extension poses practical challenges for farmers, including the inconvenience of crossing barbed wire fencing to cultivate their land along the border.

## Significance

- State vs. Centre Dynamics: The case underscores the delicate balance of power between the State and Centre, particularly in matters of law and order.
- Federal Structure Concerns: The dispute raises questions about the federal structure enshrined in the Constitution and the need for consultation between the Centre and the States on matters impacting law and order.
- **Practical Implications:** The geographical and demographic differences among border states highlight the need for tailored considerations when determining BSF's jurisdiction.

## Solutions

- **Constitutional Review:** The Supreme Court will assess whether the notification constitutes an arbitrary exercise of power and if it infringes on the legislative domain of the State.
- **Consultative Approach:** The resolution passed by the Punjab State Assembly emphasizes the importance of consulting the State government before making major decisions affecting law and order.
- **Consideration of State-Specific Factors:** The Court will likely explore whether all states should be treated alike in determining the "local limits of areas adjoining the borders of India," considering factors such as population density and geography.

## **BSF** jurisdiction

- The powers of the BSF include the power to arrest, search and seize under laws such as the Passport (Entry into India) Act, 1920, Passport Act, 1967, Customs Act, 1962, The Narcotic Drugs and Psychotropic Substances Act, 1985, and certain other laws.
- It mainly focuses on preventing trans-border crimes, especially unauthorised entry into or exit from Indian territory.
- It does not have the power to investigate or prosecute offenders, but has to hand over those arrested and the contraband seized from them to the local police.
- In practice, BSF personnel usually work in close coordination with the police and there ought to be no clash of jurisdiction.
- Section 139(1) of the BSF Act allows the central government, through an order, to designate an area "within the local limits of such area adjoining the borders of India" where members of the BSF can exercise powers to prevent offenses under any Acts that the central government may specify.

**Nut Graf:** The legal battle between Punjab and the Centre over the extended jurisdiction of the BSF brings to light broader questions about the distribution of powers between the State and Centre, especially in sensitive matters like law and order. The Supreme Court's decision in the upcoming hearing will not only impact Punjab but also set a precedent for the relationship between the Centre and other states in similar disputes.



Syllabus: Environment conservation

## **Prelims: Project tiger**

Context: The government has trapped Project Tiger, now 50, in a tough spot.

#### **Details:**

- From only nine Reserves in 1973 encompassing 9,115 sq. km, there are 54 in 18 States, occupying 78,135.956 sq. km, or 2.38% of India's total land area.
- The conflict between the forest dwellers and the administration has always existed. It has been further exaggerated by Wildlife Act 1972 and the Forest Rights Act 2006.
- Launched in 1973, Project Tiger introduced India's Tiger Reserves which have since rapidly ascended in status.
- From an administrative category arbitrarily constituted and administered by the forest bureaucracy, Tiger Reserves became a statutory category in 2006.
- At present, Tiger Reserves are hailed worldwide as India's miraculous success story in environment and forest conservation, especially in this age of climate change

#### 2. National Clean Air programme

**Context:** In 49 cities whose particulate matter numbers were consistently available for five years, 27 cities showed a decline in PM 2.5 considered the most dangerous grade of pollutant while only four had met or exceeded the targeted decline, according to an analysis by Respirer Living Sciences and Climate Trends.

## 3. What is NCAP?

- National Clean Air Programme is one of the first targeted programmes launched by the government to clean the ambient air. Launched by MoEFCC in 2019.
- Seeks to reduce the levels of PM2.5 and PM10 in the air with 2017 as the base year. (reducing it by 40% by the year 2026).
- The country's current, annual average prescribed limits for PM2.5 and PM10 are 40 micrograms/ per cubic metre (ug/m3) and 60 micrograms/per cubic metre.
- Non Attainment Cities: 132 such cities identified by the CPCB.
- Have been unable to meet the NAAQS targets.
- NAAQS National Ambient Air Quality Standards are the standards for ambient air quality with reference to various identified pollutant notified by the CPCB under the Air (Prevention and Control of Pollution) Act, 1981.
- List of pollutants under NAAQS: PM10, PM2.5, SO2, NO2, CO, NH3, Ozone, Lead, Benzene, Benzo-Pyrene, Arsenic and Nickel.
- Cities were required to quantify improvement starting from 2020-21, which requires 15% and more reduction in the annual average PM10 concentration and a concurrent increase in clean air quality days to at least 200. Anything less will be considered low, and the funding will consequently be reduced.

## 4. Global Risks Report 2024

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**Context:** The report released by World Economic Forum (WEF) has highlighted climate change as one of the most substantial risks facing mankind.

## **Details:**

- Report is based on a survey of nearly 1500 experts, industry leaders and policymakers.
- Two-thirds of respondents rank Extreme weather as the top risk most likely to present a material crisis on a global scale in 2024, with the warming phase of the El Niño-Southern Oscillation (ENSO) cycle projected to intensify and persist until May this year.
- Younger respondents tend to rank these risks (Biodiversity loss and ecosystem collapse and Critical change to Earth systems) far more highly over the two-year period compared to older age groups, with both risks featuring in their top 10 rankings in the short term.
- The private sector highlights these risks as top concerns over the longer term, in contrast to respondents from civil society or government who prioritize these risks over shorter time frames.

## 5. Biodiversity Credits

**Context:** Biodiversity Credits are increasingly being pushed as a means for financing work on the various targets set under the Kunming-Montreal Global Biodiversity Framework (KMGBF).

## What is it?

- Biodiversity credits are a financial instrument designed to generate funding for the conservation, restoration, and sustainable use of biodiversity-rich areas.
- The core purpose of biodiversity credits is to attract private investments toward initiatives aligned with the goals of conserving and restoring biodiversity, as outlined by international agreements such as the KMGBF under the CBD.

#### Examples

- Ocean Conservation Commitments (OCCs): Launched in September 2023, OCCs are tied to Niue's Moana Mahu Marine Protected Area, covering 127,000 square kilometers.
- OCCs are available for purchase by interested buyers, each representing a commitment to support conservation efforts for 20 years.
- Priced at USD 148 per OCC, these commitments have attracted investments from non-governmental organizations like the Blue Nature Alliance, Conservation International, and private donors.

#### 6. Wetland City Accreditation

**Context:** The Ministry of Environment, Forest and Climate Change (MoEF&CC) has recently submitted three nominations from India for the Wetland City Accreditation (WCA).

 The nominated cities include Indore (Madhya Pradesh), Bhopal (Madhya Pradesh), and Udaipur (Rajasthan).

#### What is it?

- The WCA is a voluntary accreditation system established by the Ramsar Convention during the Conference of the Contracting Parties (COP) 12, 2015 to recognize cities that have taken exceptional steps to safeguard their urban wetlands.
- The scheme aims to promote the conservation and wise use of urban and peri-urban wetlands, as well as sustainable socio-economic benefits for local populations.
- The WCA is valid for 6 years.

## Regions

- Sirpur Wetland and Yashwant Sagar in Indore
- Bhoj wetland in Bhopal
- Multiple lakes in and around Udaipur The city is surrounded by five major wetlands, namely, Pichola, Fateh Sagar, Rang Sagar, Swaroop Sagar, and Doodh Talai.

#### 7. Himalayan wolf

**Context:** The Himalayan Wolf (Canis lupus chanco), a prominent predator found across the Himalayas, has been assessed for the first time in the International Union for Conservation of Nature (IUCN)'s Red List.

• The animal has been categorised as 'Vulnerable' on the IUCN Red List.

## **Way Forward**

- Securing and restoring healthy wild prey populations and landscapes and setting aside wildlife habitat refuges;
- Improving livestock guarding methods, such as predator-proof corral pens and using sustainable livestock herding practices, including reduced livestock loads, adapted herding, and developing novel but tradition-based holistic management practices
- Management of feral dog populations
- Trans-boundary efforts in conservation of the species in range countries through research and monitoring.

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# HISTORY, ART AND CULTURE

#### 1. Yakshagana

Syllabus: GS-1, Art and Culture

#### Prelims: Yakshagana

**Context:** The Karnataka High Court, considering the traditional nature of Yakshagana, granted permission for the mela to return to its original dusk-to-dawn schedule.

From January 14 onwards, the Yakshagana mela is set to revert to all-night shows, marking a return to its traditional schedule.

Earlier, A circular had restricted the use of loudspeakers, integral to Yakshagana performances, between 10 p.m. and 6 a.m., leading to changes in traditional schedules.

#### About Yakshagana:

- Yakshagana is a traditional performing art form with a rich history, dating back over a century.
- The Kateel Durgaparameshwari Prasadita Yakshagana Mandali in Dakshina Kannada is a prominent contributor to this cultural heritage.
- Originating in the mid-19th century, the Yakshagana mela has evolved with time, now featuring six performing troupes.
- Its enduring legacy reflects the deep cultural roots and artistic expressions within the Dakshina Kannada region.

#### Significance:

- The High Court's decision was contingent upon the mela adhering to the Noise Pollution (Regulation and Control) Rules, 2000.
- The petitioner's counsel provided an undertaking to ensure compliance with prescribed decibel levels during performances.
- This shift signifies the resilience and adaptability of cultural practices, navigating challenges while preserving their essence.

#### 2. India's oldest living city found in Vadnagar: multi-institution study

**Context:** A recent joint study by five prominent institutions has revealed intriguing evidence of cultural continuity in Vadnagar, Gujarat, challenging the conventional narrative of a "Dark Age" following the collapse of the Harappan civilization.

 Led by the Archaeological Survey of India (ASI) and supported by institutions such as the Indian Institute of Technology (IIT) Kharagpur, the study indicates the presence of a human settlement in Vadnagar dating back to 800 BCE, contemporary to the late-Vedic/pre-Buddhist Mahajanapadas or oligarchic republics.

#### lssues

- **Conventional Notions of Dark Age:** The period between the collapse of the Indus Valley Civilization and the emergence of the Iron Age has traditionally been considered a Dark Age. However, the recent findings challenge this perception, suggesting continuous human settlement and cultural development in Vadnagar.
- Climate-Driven Historical Changes: The study proposes that the rise and fall of different kingdoms and recurrent invasions in India over a 3,000-year period were influenced by severe changes in climate, such as rainfall or droughts. This brings a climatic perspective to historical events, linking them to environmental factors.

# Significance

- Cultural Continuity in Vadnagar: The excavation in Vadnagar has unearthed evidence of a multicultural and multireligious settlement, including Buddhist, Hindu, Jain, and Islamic influences. The discovery of seven cultural stages spanning Mauryan to Gaekwad-British colonial rule indicates the city's enduring nature.
- **Support for Digital Museum:** The study was funded by the Directorate of Archaeology and Museums (Government of Gujarat), responsible for building India's first experiential digital museum in Vadnagar. This indicates the practical application of the research in preserving and presenting historical heritage.
- Generous Funding and Support: The research at Vadnagar and the broader Indus Valley Civilization has received substantial funding from Sudha Murthy, the former chairperson of the Infosys Foundation, over the past five years. This underscores the importance of private support in advancing archaeological studies.

# About Vadnagar

- The town's fortifications, arched gateways (toranas), temples, wells, residential structures (kothis) and excavated sites like Buddhist monasteries and dedicated stupas showcase the architectural influence of various cultural periods.
- The extensive water management system here has also played a role in the town's continuity.
- The study of the historical geography of ancient India reveals Vadnagar was situated at a strategic location of two major ancient trade routes:
  - one joining central India with the Sindh and further northwest regions, while another connected the port towns on Gujarat's coast to northern India.
- A gold coin, believed to be from the Mamluk dynasty of Egypt that dated back to the 15th century, was also found.
- The first excavations in Vadnagar happened in 1953-54 and were later taken up by the Gujarat state archaeology and museum directorate in 2006.
- Vadnagar: A centre of Buddhism: Chinese traveller Xuanzang or Hieun Tsang is said to have visited Vadnagar around 641 AD, referring to it as 'Anandpur' in his writings, which also record how more than 1,000 monks of the Sammitiya School or Little Vehicle lived in 10 monasteries at Vadnagar.

# 3. Jallikattu

**Context:** During a Jallikattu event in Siravayal village near Tirupathur, two spectators, including a minor boy, were fatally gored by bulls, with over 100 others injured.

# About Jallikattu:

- Jallikattu is a traditional bull-taming sport originating from the Indian state of Tamil Nadu.
- Also known as "manju virattu" in the region, it is traditionally held every year as part of Pongal.
- Participants, known as "Jallikattu warriors," attempt to grab the hump of a bull and hold on to it.
- The sport has cultural and religious significance, symbolizing bravery and valour.
- Bulls used in Jallikattu are specifically bred for this purpose, and their participation is considered an honour.

# Significance:

- Jallikattu has faced controversy due to concerns about animal welfare and safety, leading to
  occasional bans. Efforts have been made to strike a balance between preserving tradition and
  addressing animal rights concerns.
- Supporters argue that Jallikattu is an integral part of Tamil culture and should be safeguarded.
- The sport continues to be a subject of debate, reflecting the ongoing dialogue between tradition, culture, and ethical considerations.

## 4. Ram Temple, Ayodhya

**Context:** With less than a week to go for the inauguration of the Shri Ram Janmabhoomi Mandir on January 22, the Pran Pratishtha or consecration ceremony of the Ram Lalla idol will be preceded by a week-long ritual beginning January 16.

#### **Details:**

- Built over three floors with each one being 20-foot high, there are a total of 392 pillars and 44 doors in the complex.
- The temple is being built in the Nagara style of temple architecture and the idol of Ram Lalla will be placed in the sanctum sanctorum.
- The Shri Ram Darbar will be on the first floor and there will be five mandaps (halls) Nritya Mandap, Rang Mandap, Sabha Mandap, Prarthana Mandap and Kirtan Mandap.
- Statues of deities will adorn the pillars and walls and there will be mandirs at four corners of the compound dedicated to Surya, Bhagwati, Ganesh, Shiv.
- On northern and southern arms, temples to Annapurna and Hanuman will be built respectively. Besides these, temples of Maharshi Valmiki, Vashishtha, Vishwamitra, Agastya, Nishad Raj, Shabri etc have also been proposed in the complex.
- The foundation of the temple has been built with a 14-metre-thick layer of roller-compacted concrete, giving it the appearance of an artificial rock. A 21-foot-high granite plinth has been placed to protect against ground moisture and no iron has been used anywhere.
- Ramps and lifts for the elderly and differently abled devotees have also been built with a separate block in the complex with a bathing area and washrooms. There will also be a pilgrims facility centre for 25,000 people with medical and locker facilities.
- Great emphasis has also been given on environmental and water conservation, with 70% of the 70-acre area being left green.
- Makrana marble and pink sandstone from Rajasthan, granite stone from Tamil Nadu and Telangana, and coloured marble from Mandla in Madhya Pradesh have been used for the construction, officials of the Shri Ram Janmabhoomi Teerth Kshetra Trust entrusted with building the structure had said.
- The pink sandstone measuring 4.7 lakh cubic feet from Rajasthan's Bharatpur district has been used in the main temple structure, 17,000 granite stones in the plinths, and the white Makrana and coloured marbles were used for the inlay work, it is learnt.
- The temple complex will have its own sewage and water treatment plants, fire service, and an
  independent power station, Trust secretary Champat Rai had said, adding that experts from IITs
  in Delhi, Guwahati, Chennai and Bombay; NIT Surat; Central Building Research Institute, Roorkee;
  National Geo Research Institute, Hyderabad and the National Institute of Rock Mechanics worked
  together to give the final shape to the temple.

#### 5. Awards for Words

**Context:** Sahitya Akademi has announced its annual Sahitya Akademi Awards in 24 languages.

- 9 books of poetry, 6 of novel, 5 of short stories, 3 Essays and 1 Literary Study have won the Sahitya Akademi Awards 2023.
- The Awards, recommended by distinguished Jury members in 24 Indian languages, were approved by the Executive Board of the Sahitya Akademi which met on 20th December, 2023 under the Chairmanship of Sri Madhav Kaushik, President, Sahitya Akademi.
- Scholar Lakshmisha Tolpadi will get the award for his collection of essays Mahabharatha Anusandhanada Bharathayatre in Kannada while Bengali author Swapnamay Chakrabarti will receive the award for his novel Jaler Upar Pani. In the English language category, Neelum Saran Gour has been selected for her novel Requim in Raga Janaki, and in the Hindi language category, writer Sanjeev has been named for his novel Mujhe Pahachaano.

- Some authors who will receive the honour for their poetry collections are Vijay Verma in Dogri, Vinod Joshi in Gujarati, Manshoor Banihali in Kashmiri, Ashutosh Parida in Odia, and Arun Ranjan Mishra in Sanskrit.
- The awards recommended by distinguished jury members in 24 languages were approved by the Executive Board of the Sahitya Akademi which met on Wednesday under the Chairmanship of Madhav Kaushik, President of the Akademi. The awards relate to books first published during the five years immediately preceding the year of award, that is between January 2017 and December 31, 2021.
- The award, in the form of a casket containing an engraved copper-plaque, a shawl, and ₹1,00,000, will be presented at the award presentation function on March 12, 2024.
- The Sahitya Akademi, founded on March 12, 1954 is an autonomous body under the Union Culture Ministry and is dedicated to the promotion of literature in Indian languages.

## 6. Mudiyettu

## **Details:**

- Mudiyettu is a ritual theater and dance drama of Kerala that enacts the mythological tale of a battle between the goddess Kali and the demon Darika.
- The ritual is a part of the bhagavathi or bhadrakali cult and is performed in Bhagavati temples, usually between February and May, after the harvest.
- The performance is done by members of the Marar and Kuruppu communities, who paint their faces and wear elaborate costumes and headgears.
- It involves various characters such as Shiva, Narada, Darika, Kali, Daanavendra, Koyichaadar and Kooli.
- The ritual ends with a victorious Kali entering the stage holding the head of Darika, followed by a song of praise to Shiva.
- Mudiyettu is a UNESCO Intangible Cultural Heritage of Humanity and the second art form from Kerala after Kutiyattam.

#### 7. Warli Tribe

**Context:** The mention of leopard sighting may strike terror in the hearts of most people. But for the Warlis living near Sanjay Gandhi National Park in Maharashtra, the Waghoba or leopard deity is worshipped and revered, not feared.

- They are an indigenous adivasi group that inhabits the bordering, hilly, and coastal areas of Gujarat and Maharashtra.
- The word "Warla," which meaning "piece of land," is the root of the term "Warli."
- Language: Varli, sometimes known as Warli, is a language spoken by the Warli people. Although the language is commonly categorised as Marathi, it is also referred to as Bhil or Konkani.
- Culture: They have embraced many Hindu ideas and have their own animistic beliefs, way of life, rituals, and traditions.
- The idea of Mother Nature is central to Warli culture, and natural objects are often shown as main points in Warli paintings.
- Fashion and attire: The ladies of the Warli Tribe often don a one-yard sari called a Lugden, which is worn until the knee.
- The sari was influenced by the rural areas of Maharashtra. The drape is knee length and has a Maharashtrian sari draping feel to it.
- Celebration: The Warli tribes celebrate Bohada, a three-day mask celebration. The proprietors of these masks don them and give multiple performances during this festivity.
- Tarpa dance and music are performed by the Warli Tribes, who also play Tarpa instruments.
- Typically, they give group performances. With a Tarpa instrument in hand, one person begins to play music, and the others surround him or her, dancing as they dance.

#### 8. Savitribai Phule and Rani Velu Nachiyar

**Context:** The Prime Minister, Shri Narendra Modi paid tributes to Savitribai Phule and Rani Velu Nachiyar on their Jayanti.

## About Savitribhai Phule

- Savitribai Phule was born on 3 January 1831 at Naigaon in Maharashtra's Satara district.
- She was the eldest daughter of Lakshmi and Khandoji Neveshe Patil, both of whom belonged to the Mali community, now an Other Backward Caste (OBC).
- At the age of 9, she was married to 13-year-old Jyotirao Phule.
- Jyotirao Phule, better known as Jyotiba, was also a social reformer who worked in the field of women education. Jyotirao educated Savitribai at home after their marriage.
- Savitribai Phule died on 10 March 1897, while caring for a patient in the clinic she had opened for the treatment of those affected by the bubonic plague.
- In the 1850s, the Phule couple initiated two educational trusts—the Native Female School, Pune and The Society for Promoting the Education of Mahars, Mangs and Etceteras—which came to have many schools under them.
- She published Kavya Phule in 1854 and Bavan Kashi Subodh Ratnakar in 1892. In her poem, Go, Get Education, she urges the oppressed communities to get an education and break free from the chains of oppression.
- In 1852, Savitribai started the Mahila Seva Mandal to raise awareness about women's rights. Savitribai called for a women's gathering where members from all castes were welcome and everybody was expected to sit on the same mattress.
- She simultaneously campaigned against child marriage, while supporting widow remarriage.
- In 1863, they started a home for the prevention of infanticide in their own house, for the safety of pregnant, exploited Brahman widows and to nurture their children.
- In 1890, Jyotirao passed away. Defying all social norms, she lit his funeral pyre.
- She initiated the first Satyashodhak marriage—a marriage without a dowry, Brahmin priests or Brahminical rituals in 1873. Her adopted son, Yashwant, too, had a Satyashodhak inter-caste marriage.
- Her achievements were diverse and numerous, but they had a singular effect—posing a brave and pioneering challenge to the caste system and patriarchy.

## Rani Velu Nachiyar

- Also known as Veeramangai, was the princess of the Ramnad Kingdom of Ramanathapuram, Tamil Nadu.
- She is revered as the first queen to fight against the British colonial power in India.
- She was a scholar in languages like French, English, and Urdu.
- Nachiyar became queen of the Sivaganga estate (present-day Tamil Nadu) in 1780 after her husband Muthuvaduganathaperiya Udaiyathevar's death. She ruled until 1790.
- She went to establish the first army of trained women soldiers in the late 1700s.
- In collaboration with Hyder Ali and Gopala Nayaker, she waged a war against the British and emerged victoriously

#### 9. Nritya Kalanidhi Award

**Context:** Classical dancer and choreographer Vasanthalakshmi Narasimhachari received the prestigious 'Nritya Kalanidhi' award at the 17th Dance Festival of The Music Academy.

- Vasanthalakshmi Narasimhachari is known for her expertise in both Bharatanatyam and Kuchipudi, showcasing a remarkable versatility in classical dance forms.
- The 'Nritya Kalanidhi' award is an annual recognition in the field of dance presented by the renowned Madras Music Academy.
- The Music Academy, Madras, holds a distinguished position as a landmark institution in the history

of fine arts.

- It emerged as an outcome of the All-India Congress Session held in Madras in December 1927.
- The institution was conceived with the ambitious goal of setting and upholding high standards for Carnatic music.
- A significant event organized by the Music Academy is its annual music and dance festival, attracting artists and art enthusiasts from around the country.
- The Music Academy plays a pivotal role in recognizing and honouring excellence in the field of music and dance.
- Apart from Nritya Kalanidhi, various other awards such as Sangita Kalanidhi, Sangita Kala Acharya, TTK, and Musicologist awards are presented during the annual festival.

#### **10. Amrit Dharohar Scheme**

**Context:** Recently, an Alternative Livelihood Programme under the Amrit Dharohar Capacity Building Scheme-2023 has been launched in Sultanpur National Park.

- The Amrit Dharohar Scheme is a government initiative aimed at conserving wetlands and ensuring their sustainable management. It is designed to promote the optimal utilization of wetlands to enhance their biodiversity and ecological functions.
- Focusing on the conservation and sustainable management of wetlands.
- Implementing the scheme over the next three years.
- Increasing eco-tourism opportunities.
- Boosting carbon stock in wetlands.
- Supporting local communities in generating income through wetland-related activities.
- The Amrit Dharohar Scheme addresses several pressing issues and aligns with India's commitments to global sustainability goals:
- Sustainable Development Goals (SDGs): India, along with other United Nations (UN) member countries, adopted the 2030 Sustainable Development Goals in 2015. These goals aim to foster global peace and prosperity. The Amrit Dharohar Scheme contributes to India's efforts to achieve these goals, particularly those related to environmental sustainability.

BYJU'S AM PREP

# **SOCIAL JUSTICE & SOCIAL ISSUES**

## 1. Transforming narratives: unravelling India's transition in slum definitions

**Syllabus:** Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.

Mains: Transforming narratives: unravelling India's transition in slum definitions

**Context:** The article delves into the evolving conceptualization of slums in India, analyzing how government policies and narratives have shifted over six decades (1953-2014).

## The article analyzes data from:

**1,228 debates from the Rajya Sabha:** Examining parliamentary discussions about slums provides insights into the changing priorities and perspectives of the Indian government.

**Policy documents and Five-Year Plans:** Studying official documents reveals how policy approaches to slums have been shaped by evolving definitions.

## Key findings:

**Dynamic Definitions:** The article emphasizes that the definition of "slum" is not static but has undergone a continuous transformation, shaping the government's responses.

**Four Eras of Shifting Narratives:** The author divides the period into four eras, outlining the dominant perspectives on slums in each:

- 1950s-1960s: Slums were seen as a post-partition consequence, associated with overcrowding, lack of amenities, and health risks. Eradication was the primary focus, with limited engagement due to private ownership. A crucial shift occurred with the introduction of the Slum Areas Act of 1956, enabling government intervention once an area received official slum notification.
- **Early 1970s-Mid 1980s:** Recognizing the impracticality of eradication, the narrative shifted towards slum development. Town planning emerged as a tool, pushing slums to peripheries and prioritizing basic amenities provision.
- Mid 1980s-Late 1990s: The National Commission on Urbanisation's inaugural report in the mid-1980s reimagined cities as economic hubs, shifting the perception of slums to investment opportunities. Housing policies underwent significant changes, emphasizing broader issues such as land and infrastructure. Data-driven interventions became prominent, and targeted funding for slum improvement emerged as a key strategy. In 1996, the launch of the National Slum Development Programme reinstated focused funding from the union government for slum redevelopment.
- **2000s-2014:** The 2001 Census broadened the definition of "slum," facilitating targeted programs. Addressing the urban housing deficit became a central focus. Unlike the 1950s, the approach shifted towards solutions based on improving conditions and legal rights rather than complete eradication. The concept of uplifting slum dwellers was associated with providing property rights to them.

#### Critical observations made by the author:

**From Social to Technical:** The article argues that the evolution of slum definitions has led to viewing them primarily as technical problems, neglecting the underlying social and economic factors that contribute to their formation.



**Data and Objectification:** While data collection like the 2001 Census helped deconstruct ambiguities, it also simplified the complexity of slum formation, potentially overlooking deeper societal issues.

**Technocratic Solutions:** The increasing reliance on technocratic solutions for urban problems raises concerns about neglecting the human aspects of slum-dwelling communities.

**Anti-Poverty Policy Concerns:** The article critiques the use of slums as a driving force for anti-poverty policies, emphasizing the need to challenge and go beyond state-defined categories to understand slum formation more holistically.

**Significance:** The author's analysis contributes to a deeper understanding of urban dynamics and socioeconomic inequalities in India. By examining the historical evolution of government perceptions and actions towards slums, the article raises critical questions about the effectiveness of purely technical solutions and underscores the importance of acknowledging the broader societal context in addressing the challenges of urban poverty and informing future policymaking.

**Nut Graf:** Slums should not be seen as purely technical problems, but also in light result of social and economic inequalities. Understanding the root causes is crucial for effective solutions.

#### 2. Why is upskilling necessary for rural youth?

Syllabus: GS-1, Issues relating to the development and management of Social Sector/Services

Mains: Importance of upskilling rural youth

**Context:** As India undergoes rapid urbanization, a significant portion of its youth expresses a preference for staying in rural areas. Acknowledging this choice is crucial, especially in the context of the agrarian crisis and the shift of farmers to non-farming jobs. This necessitates a focus on upskilling rural youth to make them employment-ready, contributing to both local economies and the prevention of mass migration.

## Main Source of Rural Income

• Farming remains the primary source of income in rural areas, but an alarming trend sees farmers leaving agriculture for non-farming jobs. The National Sample Survey Office data highlights this shift, indicating an agrarian crisis. To address this, it is essential to make agriculture an appealing vocation while creating alternative employment opportunities.

#### **Controlling Migration**

- To prevent rural youth from migrating to urban areas for employment, vocational training must be provided, instilling relevant rural skills.
- Initiatives like the 'Skills On Wheel' by the Delhi government should be extended to rural areas, bringing upskilling opportunities to the doorsteps of students.

## **Current Vocational Education Landscape**

- Existing vocational education opportunities, mainly through Industrial Training Institutes, lack placement prospects.
- Rural education's limited focus on skill development is evident from the LSC Voices 2023 survey, revealing low enrollment in vocational courses. Infusing rural life skills into the education system is crucial to nurturing a capable and thriving generation.



#### **Improving Education**

- Effective rural education should blend technical and life skills, enhancing accessibility through formal education.
- Models from other developing economies, such as Mexico's tele-schools and Bhutan's wellbeing-infused curriculum, provide valuable insights. Tele-schools offer subject lessons and values, fostering higher access to value-based secondary education.
- Organizations like the NIIT Foundation and the Pratham Institute are actively working to provide upskilling opportunities in rural areas, offering courses in industry-specific skills and life skills.

## **E-learning for Skill Development**

- Hybrid life skilling programs, delivered through e-learning platforms, can revolutionize skill acquisition in rural India.
- Targeting fields like agricultural mechanization, pollution monitoring, nursing, and digital technologies, these programs enhance employability in both traditional and non-traditional trades, fostering a vibrant rural economy.

#### Significance

## Local Economic Development

- Upskilling rural youth contributes to local economic development, providing a skilled workforce for diverse sectors, including agriculture and emerging industries.
- Preventing Mass Migration
  - By offering employment opportunities within rural areas, upskilling programs play a crucial role in preventing mass migration, and ensuring the sustainable development of rural communities.

#### Way forward

## • Expand Vocational Training Initiatives

 Governments and NGOs should expand vocational training initiatives, making them more accessible to rural youth. These initiatives should be tailored to address the specific needs of rural economies.

#### • Infuse Life Skills in Formal Education

 Rural education systems should incorporate life skills alongside technical education, preparing youth for challenges beyond the classroom and enhancing their overall employability.

**Nut Graf:** Uplifting the rural youth through upskilling is not just a necessity but a strategic investment in the sustainable development of rural communities. Governments, NGOs, and educational institutions must collaborate to create robust initiatives that empower the rural youth, enabling them to contribute meaningfully to their local economies and shaping a more resilient and self-sufficient rural India.

#### 3. Is higher education out of touch with the skill requirements in the job market?

**Syllabus:** Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Mains: Higher Education and Public and Private Partnerships in Education Sector.

**Context:** Higher education in India is facing scrutiny, with reports indicating that fewer than half of graduates were employable in 2021. Unemployment rates among graduates have increased, and concerns about the quality of online education during the pandemic have been raised.

#### Issues with online learning and education system:

- **Massification:** Rapid expansion of higher education institutions without adequate regulation led to the growth of private colleges, compromising quality.
- **Regulatory Capacity:** State and central authorities lacked the capacity to effectively regulate the increasing number of institutions, resulting in varying standards.

- Exclusivity: Higher education primarily caters to the top-income strata, leaving a significant portion
  of youth unable to access higher education.
- **Online Education Challenges:** Employability issues existed before the surge in online learning; learning deficiencies and ed-tech downsizing contribute to concerns.
- **Economic Factors:** Lack of job creation in India prompts graduates to seek opportunities abroad, impacting employability.
- **R&D Structural Issues:** Low R&D expenditure, limited private sector contribution, and insufficient translation of research into practical applications hinder knowledge creation.
- **Gender Disparities:** Despite higher percentages of employable women graduates, low female labour force participation is linked to inadequate job opportunities.
- **NEP Implementation Challenges:** Selective implementation of the National Education Policy (NEP) results in controversies, confusion, and no substantive changes.
- **Equity Concerns:** NEP was criticized for not addressing specific equity actions; marginalized groups still lag in higher education participation.
- **ITI and Polytechnic Issues:** Phenomenal growth in ITIs and polytechnic colleges raises quality concerns; proposal to divert students towards vocational training for improved quality and industry engagement.

## Way Forward:

- Address Structural Issues: Regulate the growth of private colleges and ensure quality standards to address structural deficiencies.
- Enhance Online Learning: Improve the quality of online education and address the learning deficiencies identified during the pandemic.
- **Promote Vocational Training:** Consider diverting students towards vocational training institutions, with a focus on improving quality through industry collaboration.
- Increase R&D Expenditure: Increase investment in R&D to stimulate knowledge creation, with a focus on translating research into practical applications.
- **Review and Strengthen NEP Implementation:** Address the challenges in NEP implementation, ensuring a more coherent and effective integration of skills with traditional education.
- Focus on Equity: Implement targeted measures to promote inclusiveness and equity, especially for marginalized groups.

**Nut Gruf:** The higher education crisis in India, exacerbated by the challenges of online learning, requires a holistic approach. Structural reforms, improved quality in online education, vocational training emphasis, increased R&D investment, and focused equity measures are essential for creating a responsive and effective education system that aligns with the needs of the job market and societal development.

## 4. Higher education enrolment

**Syllabus:** Issues related to the development and management of the social sector/Services relating to Health, Education, Human Resources

Mains: Higher education enrolment

**Context:** The All India Survey on Higher Education (AISHE) 2021-22, released by the Ministry of Education, reveals a notable increase in higher education enrolment, particularly among female students. The total enrolment in higher education reached nearly 4.33 crore in 2021-22, showcasing a rise from 4.14 crore in the previous academic session. This surge in enrolment is a positive trend, with female students in the science stream surpassing their male counterparts.



## **Enrolment Trends**

- **Overall Growth:** The total enrolment witnessed a substantial increase, marking a rise of 91 lakh from 2014-15 to 2021-22.
- **Female Enrolment:** Female enrolment in higher education reached 2.07 crore in 2021-22, demonstrating an increase of 50 lakh from 2014-15, showcasing a commendable growth of 32%.
- **Ph.D. Enrolment:** Female Ph.D. enrolment doubled from 0.48 lakh in 2014-15 to 0.99 lakh in 2021-22, reflecting a significant advancement in research-oriented education for women.

## Science Stream Dominance

- Undergraduate to Ph.D. Levels: In 2021-22, 57.2 lakh students were enrolled in the science stream, with female students (29.8 lakh) surpassing male students (27.4 lakh).
- Ph.D. and M.Phil Levels: The report highlights the dominance of female students in science stream enrolment across various academic levels.

## **Socioeconomic Factors**

- **ST Student Enrolment:** The enrolment of ST students exhibited substantial growth, increasing by 65.2% from 2014-15 to 2021-22.
- Northeast States: In northeast states, the total student enrolment reached 12.02 lakh in 2021-22, with female enrolment surpassing male enrolment.

## **OBC Student Enrolment**

• Growth Trend: OBC student enrolment increased by 45% in 2021-22 (1.63 crore) compared to 2014-15 (1.13 crore).

#### **Disciplinary Distribution**

- **Undergraduate Level:** The majority of students (78.9%) are enrolled in undergraduate level courses, with arts being the most popular discipline (34.2%), followed by science (14.8%), commerce (13.3%), and engineering & technology (11.8%).
- **Postgraduate Level:** At the postgraduate level, social science holds the highest enrolment (21.1%), followed by science (14.7%).

#### Ph.D. Enrolment

• **Growth Rate:** Ph.D. enrolment experienced a notable growth of 81.2%, increasing from 1.17 lakh in 2014-15 to 2.12 lakh in 2021-22.

#### Issues

- **Gender Disparities:** While there is an overall increase in enrolment, addressing gender disparities in certain disciplines and regions remains crucial.
- **Diversity and Inclusion:** Despite growth in ST and OBC enrolments, sustained efforts are required to ensure equal access and representation across diverse communities.

#### Solutions

- Awareness and Outreach: Implement targeted awareness and outreach programs to encourage enrolment in underrepresented communities and regions.
- **Scholarships and Support:** Provide financial incentives and academic support to students from marginalized communities to facilitate their higher education journey.

**Nut Graf:** The AISHE 2021-22 report indicates a positive trajectory in higher education enrolment, emphasizing gender inclusivity and increased representation from diverse communities. Addressing existing disparities and implementing targeted solutions are crucial for fostering a more inclusive and equitable higher education landscape in the country.

#### 5. Rise in child marriages in West Bengal

#### Syllabus: Society

#### Mains: Salient aspects of Diversity of India and Indian Society.

Role of women, Poverty and developmental issues, Issues related to Women

#### Introduction:

The alarming surge in child marriages in West Bengal raises critical questions about existing policies and the root causes of this persistent issue.

#### **Key Findings:**

A recent Lancet study on child marriage in India highlights a nationwide decrease, but West Bengal, along with specific states, remains a significant contributor, experiencing a startling 32.3% increase in child marriages.

#### **Challenges and Impact:**

Child marriages, especially among girls, pose substantial challenges to policymakers. The adverse effects on maternal and child health are evident, as exemplified by recent infant deaths linked to low birth weight in economically deprived areas like Murshidabad.

#### **Policy Interventions:**

Despite efforts like the Kanyashree Prakalpa scheme, which incentivizes girls' education and discourages child marriage, the efficacy of such interventions is questioned in light of the persisting incidents.

#### **Complexities and Surprising Trends:**

Experts note that West Bengal's high literacy rate doesn't directly correlate with reduced child marriages, highlighting the need for a nuanced approach. Migration and societal expectations contribute to the complex web surrounding this issue.

#### **Implementation Challenges:**

Issues in implementing laws on child marriage, as revealed by cases registered under The Prohibition of Child Marriage Act (PCMA), 2006, add another layer of complexity. West Bengal registers fewer cases than states with smaller populations and lower instances of child marriage.

#### Legislative Developments:

The Government's introduction of the Prohibition of Child Marriage (Amendment) Bill, 2021, aiming to raise the age of marriage for women to 21, signifies legislative efforts to combat this issue.

#### Way forward:

Despite district action plans and guidelines, experts emphasize the need for a comprehensive approach involving social campaigns, engagement of local communities, and political will to effectively address the deep-rooted causes of child marriages in West Bengal

**Nut Graf:** West Bengal faces a troubling rise in child marriages, with a 32.3% increase, as per a Lancet study. Despite existing policies like Kanyashree Prakalpa, challenges persist, raising concerns about the impact on maternal and child health. Experts stress the need for comprehensive measures and societal engagement to address this pressing issue.

## 6. Structured negotiation as a boost for disability rights

Mains: Importance of negotiation for disabled-friendly corporates

**Context:** Collaborative dispute resolution, structured negotiation, vital alternative to litigation, notably effective in the U.S., especially in disability rights cases.

## Importance of Negotiation:

## • Success Rate:

- Resolves issues like inaccessible ATMs, POS devices, and websites, fostering compliance with social welfare legislation.
- Influential in achieving institutional reform, e.g., accessible voting machines.

## • Win-Win Situation:

- Service providers avoid high litigation costs and negative publicity.
- Complainants seek barrier-free market participation, ensuring mutual benefits.

## • Legal Precedents:

- Strong disabled-friendly legal precedents are crucial for structured negotiation success.
- Courts create a blueprint, facilitating businesses to ensure accessibility without resorting to litigation.

#### India's Red Tape:

• Legal Framework: Rights of Persons with Disabilities Act, 2016 empowers the Chief Commissioner for Persons with Disabilities (CCPD) to address non-compliance.

#### • Challenges:

- Pendency, paperwork, and red tape in Indian civil courts dissuade traditional dispute resolution methods.
- CCPD's role raises questions about its impact on repairing accessibility barriers.
- Case Example:
  - PayTM directed to make its application accessible, but compliance resulted in increased inaccessibility.
  - Real-time efforts require constant vigilance and user inputs for effective solutions.

#### **Precondition of Success:**

#### • Constant Vigilance:

- Ongoing commitment to making digital services accessible for persons with disabilities.
- User inputs are essential for validating the efficacy of solutions.

#### • Structured Negotiation Benefits:

- Service providers avoid embarrassment, legal fees, and paperwork.
- Persons with Disabilities directly engage with providers, monitoring the implementation of fixes.

#### Way Forward:

#### • Priority:

- Success is linked to the priority service providers afford to the struggles of persons with disabilities.
- Businesses tapping into the enormous buying capacity of persons with disabilities crucial for success.

## • Optimism and Achievement:

- Helen Keller's quote emphasizes optimism as the faith leading to achievement.
- Urges India to deploy structured negotiation, urging businesses to prioritize disabled users' needs.

**Nut Graf:** Structured negotiation, a collaborative dispute resolution, proves notably effective in U.S. disability rights cases, fostering compliance and institutional reform. Amid India's bureaucratic challenges, success hinges on prioritizing persons with disabilities and embracing this alternative to litigation for mutual benefits in a barrier-free marketplace.

## 7. How surgical care in India is a neglected part of public health

**Syllabus**: Issues related to the development and management of the social sector/Services relating to Health, Education, Human Resources

## Mains: Issues related to Health

## Introduction:

In the vast expanse of India's public health system, the realm of surgical care remains overshadowed and largely neglected. This is a critical yet overlooked aspect. The article explores the challenges, disparities, and the urgent need for a comprehensive action plan.

## Surgical Care in Public Health – Issues:

- Insufficient Classification: India's Health Management Information System categorises surgeries not requiring general or spinal anaesthesia as 'minor.' A closer look reveals that, in the fiscal year 2019-2020, over 14 million minor surgeries were recorded, constituting just a fraction of the actual need. The Lancet Commission on Global Surgery (LCoGS) emphasizes the importance of accurate data collection to bridge this gap.
- 2. Disparities in Surgical Access A Population-wide Challenge: With a population of 1.4 billion, India's surgical rate per 100,000 people varies significantly, underscoring disparities in access. Over 90% of rural Indians face challenges in accessing timely surgery due to a lack of facilities, poor transportation, and a scarcity of healthcare professionals. The shortage of surgical, anaesthesia, and obstetrics (SOA) workforce in rural areas further impedes the capacity to perform surgeries.
- 3. Quality and Affordability Challenge in Surgical Care: The challenges extend beyond access, encompassing the quality of surgical care. Disparities based on geographical location, affordability, and the ability to pay are prevalent. Rural areas grapple with delivering major surgeries, impacting overall health outcomes. The absence of universal healthcare coverage exacerbates the financial burden on individuals seeking care in private hospitals.

## Addressing the issue:

- While commendable initiatives by rural surgeons and organizations exist, systemic gaps persist in India's surgical care landscape.
- Civilian initiatives and subnational programs play a crucial role in plugging these gaps.
- The fundamental neglect of surgical care in mainstream public health policymaking calls for urgent attention. India lacks a National Surgical Obstetric Anaesthesia Plan (NSOAP), emphasizing the need for dedicated policies.
- Prioritizing investments in data collection, integrating surgical care into existing healthcare systems, and developing NSOAP are crucial components of an action plan to address the neglected landscape of surgical care in India.

#### Way forward:

Policymakers, healthcare professionals, and stakeholders must recognize the urgency, prioritize investments, and embark on a comprehensive action plan. Only through concerted efforts can India ensure equitable access and quality surgical care for all its citizens.

**Nut Graf:** In India's public health system, surgical care faces critical challenges, including insufficient classification, disparities in access, and quality and affordability issues. The absence of a National Surgical Obstetric Anaesthesia Plan underscores the need for dedicated policies to address these neglected aspects. A comprehensive action plan, prioritizing investments, data collection, and systemic integration, is crucial to ensure equitable access and quality surgical care for all citizens.

#### 8. Hirakud dam & tribal displacement



Syllabus: Issues related to development

Mains: Hirakud Dam Project, Balance between economic development and environment

**Introduction:** In a historic move, Odisha has embarked on an ambitious journey to overhaul its legacy land records, aiming to resolve complex issues that have persisted for decades. This transformative initiative is set to bring relief to families affected by historical projects and streamline the classification of lands that have been a source of contention.

#### The Hirakud Dam Project's displacement:

At the heart of this initiative lies the legacy of the Hirakud dam project, which displaced numerous families in the Jharsuguda district.

The ongoing effort has already yielded positive outcomes for 1,749 families in the district, offering justice and official documentation to those who bore the brunt of historical development projects.

#### **Tools for Efficient Governance and Social Justice Delivery:**

- To expedite the process, a dedicated Revenue Task Force recommended a satellite-based land survey.
- This modern approach aligns with Odisha's commitment to efficient governance and addresses the complexities associated with various land classifications.
- Significant amendments to the Odisha Land Reforms Act empower farmers, allowing them to change land classifications and officially record their lands in their names over the next two years. This move is poised to benefit a substantial number of farmer families across 26 districts.
- The initiative simplifies processes for various land classifications, including Khasmahal, Nazul, Poramboke, Abadi, and Chaka land.
- Cost reductions for settlement, standardized conversion rates, and reinstating communal lands contribute to empowering landowners.

#### **Positive Impact on Livelihoods and Transactions:**

Residents in villages like Duanmunda and Gunduribadi express relief as they receive land deeds, validating their occupation. The streamlined land records are expected to have a positive impact on livelihoods and property transactions, fostering economic growth.

#### **5T Initiative:**

The 5T initiative is a comprehensive governance model in Odisha, focusing on Technology, Teamwork, Transparency, Transformation, and Time to enhance efficiency, collaboration, and service delivery in government operations.

#### Future Implications and step towards Inclusive Development:

As Odisha undertakes this comprehensive overhaul of land records, the state sets an example for addressing historical land disputes. The streamlined records are likely to have far-reaching implications, providing a stable foundation for property rights and encouraging economic development. This transformative move positions Odisha as a trailblazer in efficient governance and inclusive development, ensuring a brighter future for its citizens.

**Nut graf:** Odisha has initiated a groundbreaking overhaul of legacy land records, primarily addressing the displacement caused by the historic Hirakud Dam Project. This transformative step aims to streamline land classifications, empower farmers, and set a precedent for inclusive development, fostering economic growth and providing a stable foundation for property rights

### 9. Global Surgery – Accessibility

**Syllabus:** Issues Relating to Development and Management of Social Sector/Services relating to Health, Education, Human Resources.

Mains: Equitable access to Health services/facilities

## Introduction:

Global surgery, often overlooked in public health discourse, stands as a critical yet neglected aspect, especially in South Asia. The region grapples with significant challenges in providing timely and accessible surgical care.

## Understanding the intensity of the Issue:

- The Lancet Commission on Global Surgery sheds light on the staggering statistics, revealing that over 98% of South Asia's population lacks timely access to essential surgical, obstetric, trauma, and anesthesia (SOTA) care.
- Access gaps in low- and middle-income countries (LMICs) starkly contrast with those in highincome countries, showcasing a global disparity.

## **Challenges:**

- Inadequate funding and policy apathy compound the challenges faced by global surgery.
- Research in global surgery lags behind, with limited funding and attention.
- Bibliometric analysis reveals a substantial gap between global surgery and global health research, impacting innovation and solutions in surgical care.

#### Initiatives:

- Despite challenges, there are positive examples, such as the implementation of National Surgical, Obstetrics, and Anaesthesia Plans (NSOAPs) in some countries.
- These initiatives highlight the potential for transformative change and a commitment to addressing the gaps in surgical care.

**Way Forward:** Renewed focus on research, policy attention, and sustained funding emerges as a crucial path forward. Learning from successful models and leveraging innovative approaches, South Asia can bridge existing disparities and position global surgery as a cornerstone of comprehensive healthcare.

**Nut graf:** Global surgery in South Asia faces significant challenges, with over 98% lacking timely access to essential surgical care. Funding gaps, policy neglect, and limited research further hinder progress. Positive initiatives like NSOAPs showcase potential, emphasizing the need for renewed focus, policy attention, and sustained funding to address disparities and position global surgery as integral to comprehensive healthcare in the region.

#### 10. ASER 2023 Report

**Syllabus:** GS-2, Issues Relating to Development and Management of Social Sector/Services relating to Health, Education, Human Resources.

Mains: Recent findings of ASER report and steps needed to improve qualitative outcome

#### Introduction:

- The impact of the pandemic on India's children is now evident, especially among rural students aged 14 to 18.
- The Annual Status of Education Report (ASER 2023: Beyond Basics) by Pratham sheds light on the struggles faced by these students.

#### Foundational Learning Challenges:

- More than half of the surveyed students (14-18 age group) faced difficulties in basic mathematics, a skill expected to be mastered by Classes 3 and 4.
- A household survey conducted in 28 districts across 26 states assessed the foundational reading and arithmetic abilities of 34,745 students.

#### **Reading and Language Proficiency:**

- Approximately 25% of students in this age group cannot read a Class 2 level text in their mother tongue.
- Boys outperformed girls in arithmetic and English reading skills.

#### **Enrollment Trends:**

- Overall, 86.8% of 14-18-year-olds are enrolled in an educational institution.
- However, enrollment gaps emerge as students grow older, reaching 32.6% for 18-year-olds.

#### **Educational Stream Choices:**

- In higher classes (Class 11 and beyond), Humanities is the most popular stream.
- Gender disparities exist, with fewer girls (28.1%) enrolling in the science stream compared to boys (36.3%).

#### **Vocational Training and Private Tuition:**

- Only 5.6% of students opt for vocational training or related courses.
- The proportion of children opting for private tuition increased from 25% in 2018 to 30% in 2022.

#### **Technology Literacy:**

- Close to 90% of surveyed youngsters have a smartphone and know how to use it.
- However, many lack awareness of online safety settings.

#### **Challenges and Corrective Measures:**

- Lags in reading and arithmetic skills point to challenges in the education system.
- The National Education Policy 2020 aims for universal foundational literacy and numeracy in primary school by 2025.
- Despite efforts under the NIPUN Bharat Mission, the diverse and vast nature of India requires significant catch-up.

## **Conclusion:**

- While rising enrollment is positive, challenges persist after the compulsory school cycle (Class 8).
- The Right to Education Act, 2009 has ensured universal access, but addressing gaps is essential for true implementation of the legislation.

**Nut Graf:** The ASER 2023 report on India's 14-18-year-olds highlights concerning trends, revealing struggles in basic skills, enrollment gaps, and disparities. Despite the National Education Policy goals, challenges persist, emphasizing the need for corrective measures to ensure true implementation of the Right to Education Act.

#### 11. What are labour rules for workers abroad?

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**Syllabus:** Issues related to the development and management of the social sector/Services relating to Health, Education, Human Resources

Mains: Labour rules for workers abroad

**Context:** The recruitment of workers from Uttar Pradesh and Haryana to Israel has raised concerns, with trade unions opposing the move. This initiative, facilitated by the National Skill Development Corporation (NSDC), has led to debates on labour rules, the legality of the recruitment drive, and adherence to international labour standards.

## **Recruitment Drive to Israel:**

- Uttar Pradesh and Haryana governments, in collaboration with NSDC, are recruiting 10,000 workers for construction activities in Israel.
- NSDC promotes it as an opportunity for workers to explore new horizons abroad.

## **Opposition from Trade Unions:**

- Trade unions oppose the move, citing violations of Emigration Rules under the Emigration Act.
- Central trade unions argue that sending workers to conflict zones contradicts Indian ethos.

## Significance

## • Labour Rules and Legal Implications:

- Workers travelling to conflict zones are required to register on the 'e-migrate' portal, but Israel is not on the ECR list.
- The recruitment violates provisions of the Emigration Act, with workers paying fees to NSDC, flight costs, and other charges.

## • International Labour Standards:

- India has not ratified ILO conventions on migrant workers, while Israel ratified the Migration for Employment Convention in 1953.
- Despite the ongoing conflict in Israel, the Ministry of External Affairs expresses satisfaction with Israel's labour standards.

## ILO conventions for migratory labour

- Migration for Employment Convention (Revised), 1949 (No. 97) Requires ratifying states to facilitate international migration for employment by establishing and maintaining free assistance and information services for migrant workers and taking measures against misleading propaganda relating to emigration and immigration.
- Migrant Workers (Supplementary Provisions) Convention, 1975 (No. 143) Provides for measures to combat clandestine and illegal migration while at the same time setting forth the general obligation to respect the basic human rights of all migrant workers. Calls upon ratifying states to facilitate the reunification of families of migrant workers legally residing in their territory.

#### Data points:

- As per the available data, there are around 13 million Indian nationals abroad including labourers, professionals, and experts.
- The External Affairs Ministry maintains the data concerning Indian workers, holding Emigration Check Required (ECR) passports, and proceeding for overseas employment through the e-Migrate portal to any of the 18 ECR countries. The Ministry does not maintain industry-wise data on Indians abroad.

## Way Forward:

- Legal Challenge and Concerns:
  - Trade unions plan to legally challenge the recruitment, emphasizing the violation of labour standards in a conflict zone.
  - The government's stand on Israel's labour laws is met with scepticism from trade unions.
- International Practices and Migration Policies:
  - International labour standards, as per ILO conventions, stress cooperation among nations to combat misleading propaganda related to migration.
  - The ILO recommends accurate forecasting of labour demand and improved education and training systems for effective migration policies.

## Emigration Check Required (ECR) and Emigration Check Not Required (ECNR)?

- ECR is Emigration Check Required If an Indian passport holder is not a 10th standard pass, they require ECR. It means they need special safeguards like proper and valid work permits/work visas/job agreements, etc., between their employer in the foreign country where they want to go and them, which is to be ensured by an office called Protectorate of Emigrants(POE) in India, like that of the Passport office/Visa Consulate.
- ECNR is Emigration Check Not Required. If an Indian passport holder is a 10th standard pass, he/ she is free to go to certain Gulf/African or other poorer countries elsewhere to work and earn livelihood there at their own risk, which means they do not require an emigration check.

**Nut Graf:** The recruitment of workers to Israel by the Uttar Pradesh and Haryana governments, while promoted as an opportunity, faces opposition from trade unions citing legal and ethical concerns. The conflict between labour rules, international standards, and the government's stance adds complexity to the situation.

12. Intersectionality of gender and caste in women's participation in the labour force

**Syllabus:** Issues Relating to Development and Management of Social Sector/Services relating to Health, Education, Human Resources.

Mains: Issues related to women

#### Introduction:

Over the last two decades, India has witnessed a significant downturn in Female Labour Force Participation (LFP), particularly in the informal sector. This decline is multifaceted, influenced by structural constraints in the manufacturing and service sectors, gender bias, and caste discrimination. Exploring this intricate web reveals a nuanced landscape where education, caste dynamics, and economic stability play pivotal roles in shaping women's employment choices.

#### Caste Lens on Female LFP:

The paper delves into the intersectionality of caste and gender, using data from the Socio-Economic and Caste Census (SECC) 2011. Conflicting results from previous studies necessitate a deeper understanding of how caste influences women's participation in the rural informal sector. Education emerges as a key factor, with historical disparities favouring women from higher castes.

#### **Factors Influencing Women's Participation:**

- The analysis extends to the tehsil level in selected states, examining the interplay between high and low-income households, the percentage of female-headed households, and caste dynamics.
- Intriguingly, the study finds that women's LFP in the rural informal economy tends to rise under specific conditions, such as a higher number of lower-caste households and an increased prevalence of female-headed households, particularly when economically disadvantaged.

#### **Challenges and Opportunities:**

- The research sheds light on the challenges faced by women, especially from lower castes, emphasizing limited educational opportunities that confine them to informal sector jobs. However, affirmative action policies enable entry into the formal economy for educated women from lower castes, challenging societal norms.
- Despite obstacles rooted in caste and gender bias, the study underscores the positive influence of women's participation in the workforce.
- Beyond economic contributions, women's employment correlates with delayed marriage and childbirth, higher chances of children attending school, reduced susceptibility to domestic violence, and increased mobility.

#### Implications for Inclusive Policies:

- Understanding the intricate dynamics of female LFP in rural India becomes crucial for formulating inclusive policies.
- The findings advocate for a holistic approach, addressing caste-based disparities, promoting education, and creating opportunities for women in both formal and informal sectors.

**Conclusion:** Unraveling the complexities of female LFP in rural India reveals a tapestry woven with caste, gender, and economic threads. The study not only contributes valuable insights into the challenges faced by women but also emphasizes the transformative power of their participation in shaping a more inclusive and enlightened future for the nation.

**Nut graf:** The decline in female Labour Force Participation (LFP) in rural India, analyzed through the caste lens, reveals a complex interplay of education, caste dynamics, and economic stability. Despite challenges, women's workforce participation positively impacts society, advocating for inclusive policies.

#### 13. Gender equity in education

**Syllabus:** Issues Relating to Development and Management of Social Sector/Services relating to Health, Education, Human Resources.

Mains: Issues related to women

#### Introduction:

As the world celebrates International Women's Day, it is crucial to turn the spotlight onto the persistent gender disparities within education, particularly in the crucial fields of Science, Technology, Engineering, and Mathematics (STEM). The Annual Status of Education Report has recently brought to light concerning trends in STEM education in India, indicating that while rural boys and girls equally aspire to be doctors or engineers, there exists a significant gender gap when it comes to pursuing STEM courses.

#### **Gender Parity in Learning Outcomes:**

- A detailed analysis of the National Achievement Survey (2017) reveals an encouraging gender parity in learning outcomes between boys and girls in elementary and secondary classes across the country.
- The average test scores in mathematics for both genders are remarkably similar, showcasing equality in educational achievements.

#### Widening Gender Gap in Education:

- A deeper examination exposes a disconcerting trend over the past two decades.
- Although girls in India are receiving more education than ever before, the gender gap in educational attainment has widened.
- Despite the mean years of schooling for girls nearly tripling, the gap between male and female attainment has increased, contrary to global trends.

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- The gender gap expands with progressive levels of education due to heightened barriers faced by girls, rooted in social norms and gender stereotypes correlated with adolescence.
- This is evident in the radical reversal of dropout rates, with twice the number of girls dropping out of the schooling system by Class 8.

## Early Signs of Gender Discrimination:

- Alarming insights from the Annual Status of Education Report's "Early Years" section reveal early signs of gender discrimination.
- Boys tend to be enrolled in private institutions, incurring out-of-pocket expenses, while girls are often directed towards free government schools.
- This enrollment bias emerges as early as the age of four, indicating societal gender biases in school choices.

## The Role of Early Childhood Education (ECE):

- To address these deep-rooted issues, a shift in focus towards Early Childhood Education (ECE) is imperative.
- The foundations for gender-neutral education must be established during these formative years, where children develop their understanding of identities, behaviours, and stereotypes.

## Challenges and recommendations:

- Challenges such as the lack of a regulatory framework, inadequate funding, and poor quality of ECE persist in India.
- Urgent attention is required to address these bottlenecks and ensure that every child receives a holistic and unbiased early education.
- The policy shift towards ECE should not only emphasize universal enrollment but also actively work towards eliminating gender stereotypes within preschool education. Longitudinal studies consistently show that investing in ECE yields substantial returns, making it a high-impact strategy for eradicating gender disparities in education.
- Existing initiatives like Beti Bachao, Beti Padhao, and the Draft National Education Policy can serve as catalysts for this paradigm shift.
- By aligning efforts and focusing on actionable roadmaps, these initiatives can propel the campaign for universal early childhood education across the country.

## **Conclusion:**

In conclusion, the gender gap in STEM education is a multifaceted challenge that requires immediate and sustained intervention. By prioritizing Early Childhood Education, we have the opportunity to reshape societal norms and lay the groundwork for a future where every child, regardless of gender, can realize their full potential. The call is not just for educational reform but for gender empowerment responsible for shaping the destiny of our nation.

**Nutgraf:** The article sheds light on gender disparities in STEM education, emphasizing the widening gap in educational attainment despite parity in learning outcomes. It advocates for a crucial shift towards Early Childhood Education (ECE) to eliminate deep-rooted gender biases and calls for urgent policy interventions to ensure a holistic and unbiased early education for every child.

## 14. SHRESHTA scheme

# Scheme's highlights

 SHRESHTA aims to fill the educational service gap in Scheduled Castes (SCs) dominant areas by providing high-quality education, socio-economic upliftment, and overall development for SC students. Admission will be provided in Class 9 and Class 11 of CBSE/State affiliated private schools.

## Eligibility:

- The students, belonging to SCs, studying in class 8th and 10th in the current academic year are eligible for availing the benefits of the scheme.
- Students from the SC community who come from a marginalized income group with an annual income of up to Rs 2.5 lakh are eligible.

# Operating procedure

# The scheme is being implemented in two Modes:

# Mode 1: SHRESHTA Schools:

- Selection Process: Meritorious SC students are selected annually through the National Entrance Test for SHRESHTA (NETS) conducted by the National Testing Agency (NTA). Selected students are admitted to the best CBSE/State Board-affiliated private residential schools in classes 9th and 11th.
- Financial Support: The Department covers the total fee for students, including school and hostel fees, amounting to Rs. 1,00,000 to Rs. 1,35,000 from class 9th to 12th. Admissible fee for each class under the Scheme.
- Bridge Course: A bridge course is provided outside regular school hours to enhance students' capability to adapt easily to the school environment. The Department bears 10% of the annual fee for the bridge course.
- **Monitoring:** The Ministry monitors the progress of students regularly.

# Mode 2: NGO/VO Operated Schools/Hostels:

- Schools/Hostels run by VOs/NGOs with classes up to 12th grade receive grants for school fees and residential charges for SC students. Grants range from Rs. 27,000 to Rs. 55,000 per student based on the type of school.
- Monitoring & Impact
- **Monitoring:** The Ministry monitors the progress of students regularly.
- Institutions are required to disclose performance on their websites and the e-Anudaan/online portal, ensuring transparency.
- Installation of cameras in institutions, providing live feeds for monitoring purposes.
- All the institutions are liable for a field visit by an inspection team constituted for this purpose.
- Impact: 2023-24 (as of December 2023): 7,543 beneficiaries.
- Admissions in 2023-24: A total of 2,564 students were admitted to 142 Private Residential Schools, and Rs. 30.55 Crore has been reimbursed for school fees.

## **15. Caste Based Discrimination in Indian Prisons**

Context: Instances of Caste Based Discrimination Highlighted by the PIL

• Instances of Discrimination: The PIL exposes instances from Madhya Pradesh, Delhi, and Tamil Nadu jails where cooking is allocated to dominant castes, while "specific lower castes" are assigned menial jobs such as sweeping and cleaning toilets. The Prison system in India is alleged to perpetuate discriminatory practices, including the division of labour based on caste hierarchy and the caste-based segregation of barracks. Caste-based labour distribution is deemed a relic of colonial India and is considered humiliating and unhealthy, violating the prisoners' right to life with dignity.

# Instances of Caste Based Discrimination Highlighted by the PIL

- **State Prison Manual Sanctions:** The petition claims that prison manuals in various states sanction caste-based discrimination and forced labour within the prison system.
- **Rajasthan Prison Rules 1951:** Assignment of Mehtars to latrines and Brahmins to kitchens based on caste.

- Palayamkottai Central Jail in Tamil Nadu: The petition highlights the caste-based segregation of inmates in Palayamkottai Central Jail in Tamil Nadu, pointing to the separation of Thevars, Nadars, and Pallars into different sections.
- West Bengal Jail Code: Directs menial tasks like sweeping to prisoners from the Mether or Hari caste, Chandal, and other castes.
- 2003 Model Prison Manual Guidelines: The petition refers to the 2003 Model Prison Manual, emphasizing guidelines for classification based on security, discipline, and institutionalized programs. It argues against any classification based on socio-economic status, caste, or class.
- **Fundamental Rights:** The petition argues that a person does not lose fundamental rights or the equality code merely for being a prisoner, citing the Supreme Court's judgment in the Sunil Batra v. Delhi Administration (1978) case on the fundamental rights of prisoners.
- Call for Repeal of Discriminatory Provisions: The petition emphasises the need to repeal discriminatory provisions in state prison manuals, advocating for the protection of prisoners' fundamental rights and equality within the prison system.

## Supreme court's observations

- Three-judge Bench, headed by the Chief Justice of India, finds that prison manuals in over 10 states support caste-based discrimination and forced labour. States include Uttar Pradesh, Odisha, Jharkhand, Kerala, West Bengal, Madhya Pradesh, Andhra Pradesh, Maharashtra, Telangana, Punjab, and Tamil Nadu.
- Caste-based discrimination, segregation, and treatment of denotified tribes as "habitual offenders" within prisons are deemed a "very important issue" by the SC. SC emphasized the need for prompt and comprehensive addressing of alleged discriminatory practices.
- The SC sent a notice and asked for a response from the States and the Union within four weeks on the petition.

## How do the Laws Allow Caste Discrimination Inside Indian Jails?

## Legacy of Colonial Policies:

- India's criminal justice system, rooted in colonial legacy, primarily focuses on punishment rather than reformation or rehabilitation.
- The 'Prisons Act of 1894,' dating back almost 130 years, underscores the outdated nature of the legal framework. The Act lacks provisions for the reform and rehabilitation of prisoners.
- Recognizing the deficiencies in existing laws, the Ministry of Home Affairs (MHA) reviewed 'The Prisons Act, 1894,' 'The Prisoners Act, 1900,' and 'The Transfer of Prisoners Act, 1950.'
- This review led to the assimilation of relevant provisions into the forward-looking 'Model Prisons Act, 2023.' The effective implementation of the Model Prisons Act, 2023 which was finalized by the MHA in May 2023, is expected to improve the prison conditions and administration and protect the human rights and dignity of the prisoners.

#### **Prison Manuals:**

- State-level prison manuals, largely unchanged since the establishment of the modern prison system, reflect both colonial and caste mentalities.
- Existing prison manuals enforce the central premise of the caste system, emphasizing notions of purity and impurity. State prison manuals mandate that duties like cleaning and sweeping must be performed by members of specific castes, perpetuating caste-based discrimination. Prison manuals, such as the one in West Bengal under Section 741, safeguard the monopoly of "savarna Hindus" on cooking and carrying food for all prisoners.
- Despite constitutional and legal provisions against untouchability, caste-based rules persist in prison administration.



# The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (MS Act, 2013):

- Despite the outlawing of manual scavenging by the 2013 Act, it does not explicitly cover prison administration, and hence, the prison manuals that allow caste discrimination and manual scavenging in jails are not in violation of the Act.
- Manual scavenging refers to the practice of manually cleaning, handling and disposing of human excreta and other waste materials from dry latrines, open drains, and sewers.

## Way forward

- The states should adopt the Model Prison Manual of 2016 released by the Ministry of Home Affairs based on the Nelson Mandela Rules in 2015. The United Nations General Assembly adopted the Nelson Mandela Rules in 2015, emphasizing dignity and non-discrimination for all prisoners.
- Courts should consider judicial intervention to strike down discriminatory provisions, ensuring the protection of fundamental rights and promoting equality within the prison system.
- Establish robust monitoring mechanisms to track progress in implementing reforms, holding authorities accountable for creating a more equitable prison system.

## 16. Ministry of Social Justice and Empowerment Year End Review 2023

## Key Highlights of the Initiatives and Achievements

- Historic Gatherings and Festivals for Inclusion: The Department hosted events like a special gathering at Rashtrapati Bhavan and India's First Festival of Inclusion (Purple Fest) in Goa, involving thousands of Divyangjan and transgenders, setting world records, and fostering a sense of belonging.
- India-South Africa cooperation in Disability Sector: The Union Cabinet signed a Memorandum of Understanding (MoU) between the Government of India and the Government of South Africa, focused on cooperation in the Disability Sector.
- **Divya Kala Mela:** The Divya Kala Mela 2023, held in different cities throughout the year, stands as a testament to the Government's commitment to fostering holistic development and empowerment for persons with disabilities.
- With a vision aligned with the Prime Minister's Atmanirbhar Bharat initiative, the Government aims to ensure equal participation of divyang individuals in India's overall growth.
- **Disabilities Awareness Days:** The DEPwD embarked on a year-long celebration, commemorating various disability awareness like World Braille Day on January 4 to International Day of Persons with Disabilities on December 3, 2023d in 2023.
- **Recognition of Achievements:** Government felicitated Abilympics winners, honoring Indian Deaf Cricket Team and Para Swimmer Shri Satendra Singh Lohia, celebrating excellence in the field of disabilities, and recognizing their contributions.
- Initiatives and Reforms: The government launched transformative programs like integrating universal accessibility courses into architectural programs, releasing anonymous data through UDID (Unique Disability ID) portal, and introducing portals for skill training, employment opportunities, and online case monitoring.
- Empowering Through Entrepreneurship: Government partnered with institutes to support and empower 3000 Persons with Disabilities through enterprise initiatives, fostering collaboration between government, corporate, and institutions.
- **Technology and Accessible Resources:** The government launched ISL (Indian Sign Language) dictionary terms, Video Relay Service, and online courses in Indian Sign Language, along with ensuring accessible books through Sugamya Pustakalaya.
- **Sports and High-Tech Training Centers:** Inaugurated India's first high-tech sports training center for Divyangjan, named after former Prime Minister Shri Atal Bihari Vajpayee, in Gwalior, Madhya Pradesh, emphasizing equal opportunities in sports and talent enhancement.
- Legal Support and Financial Inclusion: Delivered impactful judgments, providing interest rate rebates to divyangjan borrowers, promoting financial inclusion through NDFDC loans, and collaborating for universal design centers for reading.
- DEPwD announces 1% interest rate rebate to divyangjan borrowers under NDFDC Loan



• Assistance to Disabled Persons Camp (ADIP) Scheme: The Scheme witnesses remarkable achievements, with grants-in-aid totaling Rs.368.05 crore, benefiting 2.91 lakh beneficiaries.

## 17. Housing for PVTGs

**Context:** The Centre has initiated a comprehensive survey and registration process to identify eligible beneficiaries of the Pradhan Mantri Awas Yojana-Gramin (PMAY-G) among 75 Particularly Vulnerable Tribal Groups (PVTGs) across 18 states and Union Territories.

- The Ministry of Rural Development utilizes the Aawas+ app, its dedicated online application, to identify beneficiaries for the rural housing scheme.
- A total of 4.9 lakh houses are planned to be built for PVTGs under the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN).

## Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN)

- PM JANMAN, led by the Ministry of Tribal Affairs, seeks to integrate tribal communities into the mainstream through a comprehensive scheme. In collaboration with states and PVTG communities, the initiative focuses on 11 key interventions across sectors, including housing, healthcare, education, and livelihood opportunities.
- The scheme will be overseen by 9 line Ministries, ensuring the implementation of existing schemes in villages inhabited by PVTGs.
- This initiative was announced by the Prime Minister on Janjatiya Gaurav Diwas 2023 (15th November).

## Pradhan Mantri Awas Yojana- Gramin (PMAY-G)

- It is a flagship program of the Central Government. It was launched on April 1, 2016, by the Ministry of Rural Development (MoRD).
- The scheme's goal is to provide affordable housing for the rural poor. This includes providing basic amenities and hygienic kitchens to those living in dilapidated and kutcha houses.
- The deadline for completion of 2.95 crore houses under PMAY-G is 31st March, 2024.
- **Beneficiaries:** People belonging to SCs/STs, PVTGs, freed bonded labourers and non-SC/ST categories, widows or next-of-kin of defence personnel killed in action, ex-servicemen and retired members of the paramilitary forces, disabled persons and minorities.
- **Cost Sharing:** The cost of unit assistance is shared between Central and State Governments in the ratio of 60:40 in plain areas and 90:10 for North Eastern and hilly states.
- Features:
- The unit cost for PMAY-G houses in PVTGs has been increased to Rs 2 lakh, compared to Rs 1.2 lakh in plain areas and Rs 1.30 lakh in hilly areas.
- PMAY-G beneficiaries can avail additional financial assistance of Rs 12,500 for toilet construction and 90 days of work under the National Rural Employment Guarantee Scheme(NREGS), taking the total benefit to Rs 2.39 lakh.

#### **PVTGs of India**

• Of the 75 PVTGs, the maximum 13 are in Odisha, followed by 12 in Andhra Pradesh.

## 18. Suvidha Sanitary Napkins under PMBJP

**Context:** The Ministry of Chemicals and Fertilizers has recently brought attention to the Jan Aushadhi Suvidha Sanitary Napkins, an initiative under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP). In a bid to enhance women's health and accessibility to menstrual hygiene products.

- Jan Aushadhi Suvidha Sanitary Napkins are available at Jan Aushadhi Kendras throughout India at a subsidized price of Rs. 1/- per pad.
- Since its inception until November 30th November 2023, over 47.87 crore Jan Aushadhi Suvidha Sanitary Pads have been sold through Jan Aushadhi Kendras.
- The sanitary pads are oxy-biodegradable and maintain good quality standards.

# Details:

- PMBJP is a campaign launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices to the masses.
- PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.

# Salient Features of PMBJP

- PMBJP has been approved for continuation by State Financial Corporations (SFCs)with financial outlay of Rs. 490 crore for period 2020-2021 to 2024-2025.
- To open 10,500 PMBJP Kendras all over the country by March 2025.
- The sales margin/earning of PMBJP Kendras is 20% of MRP (excluding taxes), as mentioned on the product.
- The incentive provided to the Kendra owners has been enhanced from earlier Rs. 2.5 Lakh to up to Rs. 5 Lakh to be given @ 15% of monthly purchases made, subject to a ceiling of Rs. 15,000/- per month, w.e.f. April 2021.
- Special one-time grant of up to Rs. 2 Lakh for specified categories for opening PMBJP Kendra.
- Under the Scheme, medicines are procured from World Health Organisation Good Manufacturing Practices (WHO-GMP) certified suppliers for ensuring the quality of the products.
- Apart from this, each batch of drug is tested at laboratories accredited by 'National Accreditation Board for Testing and Calibration Laboratories' (NABL).
- Only after passing the quality tests, the medicines are dispatched to PMBJP Kendras. Medicines available under PMBJP are priced 50%-90% less than that of branded prices.

# 19. NCRB's Crime in India 2022 Report

# Highlights of the report

- Overall Crime Statistics: A total of over 58,00,000 cognizable crimes were registered, comprising both the Indian Penal Code (IPC) and Special & Local Laws(SLL) crimes. The registration of cases witnessed a 4.5% decline compared to 2021.
- Crime Rate Decline: The crime rate per lakh population dropped from 445.9 in 2021 to 422.2 in 2022. This decline is considered a more reliable indicator, considering the impact of population growth on absolute crime numbers.
- Safest City: Kolkata emerged as the safest city in India for the third consecutive year, recording the least number of cognisable offences per lakh population among metropolises. Pune (Maharashtra) and Hyderabad (Telangana) secured the second and third positions, respectively.
- **Rise in Cyber Crimes:** Cybercrime reporting surged by 24.4%, totaling 65,893 cases, a significant surge from 52,974 cases in 2021.
- Cyber fraud constituted the majority of cases (64.8%) of registered cases, followed by extortion (5.5%), and sexual exploitation (5.2%). The crime rate under this category rose from 3.9 in 2021 to 4.8 in 2022.
- **Suicides and Causes:** In 2022, India witnessed a significant surge in suicides, totalling over 1.7 Lakh cases, reflecting a concerning increase of 4.2% compared to 2021.
- The suicide rate also rose by 3.3%, calculated as the number of suicides per lakh of the population. Major causes included 'Family Problems,' 'Marriage Related Problems,' Bankruptcy and indebtedness, 'Unemployment and professional issues' and Illness'.
- Escalating Crimes Against SCs and STs: The Crime in India report highlighted an overall increase in crimes and atrocities against SCs and STs. States like Rajasthan, Madhya Pradesh, Chhattisgarh, and Telangana experienced a surge in such cases in 2022.
- Madhya Pradesh and Rajasthan persist as key contributors, consistently ranking among the top five states with the highest occurrences of crimes and atrocities against SC and ST communities.
- Other states witnessing elevated levels of such offences include Bihar, Uttar Pradesh, Odisha, and Punjab.
- Crimes Against Women: A total of 4,45,256 cases of crime against women were reported in 2022, marking a 4% increase from 2021.
- Dominant categories included 'Cruelty by Husband or His Relatives,' 'Kidnapping & Abduction of



Women,' and 'Assault on Women with Intent to Outrage Her Modesty.'

- Crimes Against Foreigners: 192 cases registered against foreigners, a 28% increase from 150 cases in 2021. 56.8% of victims were from the Asian continent, while 18% were from African countries.
- High Chargesheeting Rates: States with the highest charge sheeting rates under IPC crimes are Kerala, Puducherry, and West Bengal. Chargesheeting rate reflects cases where police reached the stage of framing charges against the accused, out of the total true cases (where a charge sheet was not laid but a final report submitted as true, plus the total cases charge-sheeted).

#### 20.Aadhaar-based pay a bad idea for MGNREGS

**Syllabus:** Welfare Schemes for Vulnerable Sections of the population by the Centre and States and the Performance of these Schemes

Mains: Aadhaar-Based Payment Systems (ABPS) in MGNREGS and issues associated with it

#### Introduction:

- The Rural Development Ministry mandated Aadhaar-Based Payment Systems (ABPS) in the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) on January 1.
- Despite multiple deadline extensions and worker memorandums against it, ABPS became obligatory, leading to concerns.

#### Two Modes of Wage Payments:

- MGNREGS offers two wage payment modes: account-based and ABPS.
- Account-based payments use the worker's name, bank account number, and IFSC code.
- ABPS requires Aadhaar seeding with job cards, Aadhaar linkage to bank accounts, and mapping through a National Payments Corporation of India software.

#### **Challenges with ABPS Implementation:**

- Authentication glitches in ABPS can result in workers being denied work or not receiving wages promptly.
- Workers often face financial and livelihood losses while rectifying technological errors in the Aadhaar-based system.

#### **Government Claims and Realities:**

- The government asserts that ABPS eliminates duplicate job cards, reduces payment delays, and has lower rejection rates.
- Research questions the validity of these claims, revealing errors and lack of transparency in the deletion of job cards.
- Pressure to meet Aadhaar seeding targets has led to spelling mismatches and a 247% increase in job card deletions in FY 2022–23.

#### LibTech Study and Government Misrepresentation:

- The Ministry references a LibTech study to support ABPS, claiming a 3% gain over account-based payments.
- However, the study, based on a sample of 3.2 crore transactions, does not find a statistically significant difference in efficiency between ABPS and account-based payments.
- The paper also disputes the government's assertion of lower rejection rates in ABPS compared to account-based payments.

#### **Conclusion and Advocacy:**

- Timely payments are more a function of adequate fund allocation than the payment system used.
- The difficulties in resolving issues with ABPS outweigh those in account-based payments.
- Advocacy is made for account-based payments in MGNREGS due to their comparative ease of problem resolution.



**Nut Graf:** The mandatory implementation of Aadhaar-Based Payment Systems (ABPS) in MGNREGS faces criticism. Despite government claims of efficiency gains, research refutes the benefits, highlighting errors, job card deletions, and challenges faced by workers, advocating for account-based payments instead.

#### 21. Gruha Lakshmi is not a freebie

**Syllabus:** GS-2, Welfare Schemes for Vulnerable Sections of the population by the Centre and States and the Performance of these Schemes

Mains: Time to recognise women's unpaid work

## Introduction of Gruha Lakshmi Scheme:

- The Gruha Lakshmi scheme, introduced by the Karnataka government, provides a monthly cash transfer of ₹2,000 to women heading below poverty line households.
- The scheme aims to address economic disparities and challenges faced by economically disadvantaged women.

#### **Recognition of Unpaid Work:**

- Mainstream economics often overlooks activities performed by women at home as economic contributions.
- Unpaid work, including domestic chores and care responsibilities, is disproportionately borne by women, leading to a higher burden compared to men.
- The Gruha Lakshmi scheme is significant in recognizing and valuing the unpaid work performed by women, especially those facing multidimensional and time poverty.

#### **Economic Empowerment of Women:**

- Women in patriarchal economic systems often receive low wages due to limited bargaining power.
- The unconditional cash support provided by schemes like Gruha Lakshmi can empower women by allowing them to have more control over their labour power, potentially increasing their bargaining power.
- The scheme contributes to breaking the cycle of poverty for economically poor women engaged in both wage work and unpaid care work.

#### Economic Stimulus and Aggregate Demand:

- Empirical evidence suggests that direct cash transfers to households stimulate aggregate demand and contribute to economic growth.
- Similar schemes like PM-KISAN have demonstrated a multiplier effect, allowing farmers to meet various expenses beyond agriculture.
- The Gruha Lakshmi scheme, targeting a group with a high marginal propensity to consume, is expected to boost aggregate demand, leading to improved quality of life and increased economic activities.

## **Resource Allocation and Fiscal Prudence:**

- While the scheme signifies a redistribution of resources to marginalized sections, it is crucial to ensure sustainable financing through measures such as direct taxes on high-value property, capital transactions, and excise taxes on premium liquor.
- Prudent administrative measures to trim unnecessary expenditures can provide additional resources for timely and uninterrupted cash transfers.
- Maintaining fiscal prudence is essential, but not at the expense of the welfare of the marginalized; a transparent roadmap for resource augmentation is indispensable.





- Gruha Lakshmi is not a comprehensive solution to gender inequality and should be viewed as a step rather than a panacea.
- There is a need to universalize support for women, recognizing their unpaid and care work, requiring a comprehensive institutional framework at national and sub-national levels and cooperative federalism.

Nut Graf: The Gruha Lakshmi scheme in Karnataka, offering monthly cash transfers to economically disadvantaged women, addresses gender inequality by recognizing and valuing unpaid work. This initiative stimulates economic growth, but a broader institutional framework is needed for comprehensive change.





- Dedicated mentorship helpline for mentoring
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# GOVERNANCE

1. Faulty compulsion

Syllabus: GS-2, Government policies and interventions for the development of various sectors

Mains: Issues with making Aadhaar compulsory

**Context:** The government's decision to make Aadhaar details compulsory for Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) workers, with a deadline of December 31, 2023, has raised concerns. The mandatory implementation of the Aadhaar-based payment system (ABPS) is causing issues for beneficiaries, affecting a significant percentage of job card holders and active workers.

#### Issues with Aadhaar-seeding for MGNREGS

#### 1. Deadline Pressure

- Government's refusal to extend the Aadhaar-seeding deadline adds pressure.
- Nearly 35% of job card holders and 12.7% of active workers may face challenges in meeting the deadline.

#### 2. Technical Glitches

- Over-reliance on technical tools, leading to problematic implementation.
- Beneficiaries lack proper recourse for corrections in the system.
- Data analysis indicates deletion of names of 7.6 crore workers due to discrepancies in Aadhaar and job card information.

#### 3. Payment Failures

- Errors in the Aadhaar-based payment process result in payment failures.
- Spelling discrepancies between Aadhaar and job cards create issues.
- Mapping Aadhaar to the wrong bank account leads to payment diversion without consent.

#### 4. Wage Delay Concerns

- Government claims of reduced delays in wage payments through Aadhaar have not been substantiated.
- Wage delays primarily attributed to insufficient funds, not Aadhaar-related issues.

#### Significance of the Issue

- MGNREGS is a demand-driven welfare scheme crucial for rural poverty alleviation.
- Faulty Aadhaar-seeding and ABPS implementation jeopardize the effectiveness of the scheme.
- Social and economic implications for the rural poor who heavily rely on MGNREGS for livelihood.

#### Way forward:

#### 1. Revisiting the Decision

- Union government should reconsider the mandatory implementation of ABPS.
- Address the faulty seeding and mapping problems before making ABPS compulsory.

#### 2. Social Audits

- Ministry of Rural Development should conduct social audits to assess the extent of the Aadhaarseeding issues.
- Consider exemptions from ABPS on a case-to-case basis for gram panchayats facing technical challenges.

#### 3. Corrective Measures

- Implement corrective measures for discrepancies between Aadhaar and job card information.
- Streamline the process of mapping Aadhaar to bank accounts to prevent payment failures.

**Nut Graf:** The Union government must prioritize the smooth functioning of MGNREGS by addressing the issues arising from faulty Aadhaar seeding and ABPS implementation. A balanced approach, considering social audits and corrective measures, is essential to ensure the effectiveness of this vital welfare scheme for the rural poor.

#### 2. Breaking new ground, the Kerala way

#### Syllabus: GS-2, Government policies and interventions for the development of various sectors

Mains: Significance of new Urban Commission in the state of Kerala.

**Context:** As the year 2024 commences, a noteworthy development emerges in the urban landscape with the establishment of a new Urban Commission in the state of Kerala.

- This marks the resurgence of efforts to address urban challenges after a hiatus of 38 years since the formation of the National Commission on Urbanisation.
- The earlier commission, formed by Prime Minister Rajiv Gandhi, had Charles Correa at its helm.
- Despite its valuable recommendations, some were overlooked after the tragic assassination of Rajiv Gandhi.
- The subsequent 74th Constitutional Amendment, however, signified a positive shift towards private initiative and investment in urban development.

#### Necessity of an Urban Commission

#### • Global Urbanization Trends

- Currently, over 56% of the world's population resides in cities, a drastic increase from just over 5% during Marx's era.
- Urbanization has brought about significant changes, influencing climate change and creating spatial and temporal transformations, including challenges in land use, housing, water, sanitation, and pollution.

#### Historical Perspectives on Urban Development in India

- Post-independence, India witnessed two distinct periods of urban development. The Nehruvian era, spanning three decades, emphasized central planning and master plans for holistic city development.
- However, this approach failed as it pushed rural populations into urban spaces without sustained manufacturing growth.
- The 1990s saw the privatization of cities with a project-oriented approach, neglecting social housing, public health, and education.

#### **Issues in Urban Development**

#### Piecemeal Approaches

Existing mission-driven approaches, such as Swachh Bharat Mission, AMRUT, HRIDAY, and PMAY, have failed to deliver desired results due to their distance from objective realities.

#### Governance Challenges

- Governance in cities faces complexity, with subjects under the 12th Schedule remaining untransferred.
- Debates on whether managers should replace elected officials in running city affairs, and financial centralization complexities, add to the challenges.

#### Significance of the Kerala Urban Commission

#### Holistic Understanding

- The Kerala Urban Commission constituted in 2024, holds significance in offering a holistic understanding of urbanization patterns.
- With a 12-month mandate, it aims to address urban challenges, particularly in the context of Kerala's urbanized population estimated at 90% by NITI Aayog.

#### • Roadmap for Long-term Urban Development

- The commission's role is pivotal in laying down a roadmap for at least 25 years of urban development in Kerala.
- It recognizes the interplay of global and national urban processes in shaping the state's urban landscape.

# Way Forward and Future Prospects

# • Learning Lessons for Other States

- While a national urban commission was the initial aspiration, the Kerala Urban Commission serves as a beacon for other highly urbanized states like Gujarat, Maharashtra, Tamil Nadu, and Punjab.
- The process adopted by Kerala in establishing and implementing the commission can offer valuable insights and lessons.

**Nut Graf:** The formation of the Kerala Urban Commission is a significant step towards addressing the complex challenges posed by urbanization. By offering a comprehensive understanding, and long-term roadmap, and serving as a model for other states, it holds the promise of breaking new ground in the realm of urban development.

#### 3. Why have truck drivers called for a strike?

Syllabus: Government policies and interventions for the development of various sectors

Mains: Issues of truck drivers in India

**Context:** Truck drivers across multiple states in India have declared a month-long strike starting from January 1, protesting against stricter punishment for hit-and-run cases under the newly enacted Bharatiya Nyaya Sanhita (BNS) of 2023.

- The strike has led to road blockades and demonstrations, raising concerns about potential fuel shortages.
- The focal point of the agitation is Section 106 of the BNS, which prescribes severe penalties for causing death due to rash or negligent driving.

#### Issues

- Hit-and-Run Clause in BNS
- Section 106 (1): Imposes imprisonment of up to five years for causing death by a rash or negligent act.
- Section 106 (2): Specifies imprisonment of up to ten years for causing death by rash and negligent driving, coupled with escaping without reporting the incident promptly.

#### **Comparison with Existing Laws**

- BNS replaces Section 304A of the Indian Penal Code (IPC), where the punishment for causing death by negligence is two years imprisonment or a fine, or both.
- BNS lacks the relief provision in Section 134 of the Motor Vehicles Act, 1988, which mandates drivers to secure medical attention for the injured person in case of an accident.

#### Truck Driver Grievances

- Lack of consultation with truckers before implementing the new law.
- Steep penalties of imprisonment and fines deemed unaffordable by drivers earning modest monthly incomes.
- The absence of a detailed accident investigation protocol, leading to prejudiced judgments against truck drivers.

#### Gol's response to the strike

- Gol promised that the law wouldn't be implemented yet, and any decision to invoke Section 106
   (2) of the BNS would be taken after consulting the transporters' union.
- But truck driver's associations in several states continue to hold demonstrations through roadblocks and have threatened to further intensify their protest in the coming days if the government fails to withdraw the penalties.

#### Points made by truckers

- Drivers earn only ₹10,000 to ₹15,000 per month.
- New law fails to provide a detailed accident investigation protocol in the country, in the absence
  of which drivers of heavy vehicles will continue to be deemed guilty even before an investigation
  is conducted.
- There is a need for better enforcement of traffic violations such as overloading of trucks and a check on the movement of tractor-trolleys on roads which is prohibited, and implementing the permissible working hours laid down under the Motor Transport Workers' Act, 1961 which caps it at eight hours.

#### **Road accidents data**

- A total number of 4,61,312 road accidents were reported across the country in the calendar year 2022, claiming 1,68,491 lives. Of these, 56% of accidents and 60.5% of fatalities occurred on National and State Highways.
- Trucks accounted for 9% of total accident deaths and buses 3.5%. Hit-and-run cases were 18.1% of total accident deaths.

#### Significance of road transport in India

- **Contribution to GDP:** Road transport contributes 3.6% to India's GDP, with buses handling 85% of passenger traffic and trucks about 70% of freight movement.
- Increased Dependence: The sector's importance has grown with the development of more highways and expressways.
- **Essential for Perishables:** Trucks play a crucial role in transporting perishables, with price increases observed in some products within two days of the strike.

#### Truck drivers' shortage in India

- **Trucks-to-Driver Ratio Decline:** From a 1:1.3 trucks-to-driver ratio in the late 1980s and early 1990s, the ratio has dropped to 1:0.65, leading to about 25-28% of trucks being idle at any time.
- **High Attrition Rate:** Approximately 60% of truck drivers leave the industry within 15 years, exacerbating the shortage.
- **Stagnant Wages:** Despite the demand-supply mismatch, truckers' salaries have not increased significantly, with driving cabs and taxis in cities offering better pay.

#### Way Forward:

- **Consultation and Inclusion:** Truckers demand active involvement in the lawmaking process and assert that their perspectives should be considered.
- **Enforcement Improvement:** Calls for better enforcement of traffic regulations, addressing overloading, and monitoring tractor-trolley movement.
- Working Hours Regulation: Advocacy for implementing the permissible working hours stipulated by the Motor Transport Workers' Act, 1961.
- Accident Investigation Protocol: A comprehensive accident investigation protocol is needed to ensure fair judgments.

**Nut Graf:** The ongoing strike by truck drivers underscores the necessity for a balanced approach to legislation, considering the economic realities of the drivers. Addressing concerns related to penalties, enforcement, and working conditions is crucial for fostering a constructive dialogue and ensuring the welfare of all stakeholders in the transportation sector.

#### 4. MHA seeks to pacify truckers protesting new hit-and-run law

#### Syllabus: Government policies and interventions for the development of various sectors

#### Mains: Issues of truck drivers in India

**Context:** The nationwide transportation strike has been initiated by truck, bus, and tanker drivers to protest against the stringent jail and fine regulations introduced under the newly implemented Bharatiya Nyay Sanhita (BNS) for hit-and-run cases. The drivers are expressing their opposition to these regulations, which have caused disruptions in fuel supply and resulted in long queues at petrol pumps across the country.

#### What is the new regulation?

- Under the newly implemented Bharatiya Nyaya Sanhita, which replaced the colonial-era Indian Penal Code, drivers involved in a serious road accident due to negligent driving and fleeing without informing the authorities may face up to 10 years in prison or a fine of Rs 7 lakh. The law specifies that causing death through rash or negligent acts, not amounting to culpable homicide, can result in imprisonment for up to seven years and a fine.
- According to Section 106(1) of the BNS provides for a punishment of "05 years", while Section 106(2) provides for a punishment of "0-10 years" in "hit and run" cases. If a person immediately reports to a police officer or magistrate about the accident caused by reckless driving, the individual will not be charged under subsection 106(2).

#### How did the Supreme Court address this issue?

• The Supreme Court has stated in multiple cases that strict action should be taken against those drivers who recklessly drive vehicles, cause accidents resulting in someone's death, and then flee the scene.

#### What is the Central Government's argument?

• The Central Government's stance is that if a driver accidentally hits someone and promptly informs the police, they would receive a reduced punishment of five years. The extension of sentences to 10 years in such cases was influenced by the Supreme Court's observations.

#### **Issues:**

- The All India Motor & Goods Transport Association is insisting that decisions by the government should involve consultations with stakeholders. The absence of dialogue or inquiry on this matter is a concern, emphasizing the need for prior meetings and consultations.
- Private transport operators argue that the law acts as a deterrent for drivers and could result in unjust penalties. They express concern that drivers may face the risk of mob violence while attempting to transport the injured to hospitals. As a result, they are advocating for the repeal of the law.

#### What is The Bharatiya Nyaya Sanhita, 2023 (BNS)?

 The BNS is a new penal code that was introduced in India in 2023 and designed to be more clear and more concise than the IPC. It replaces the Indian Penal Code, 1860 (IPC) incorporating 358 sections (511 in IPC). The BNS incorporates some changes from the IPC, including New offences, Changes to existing offences and Improved clarity.

#### Way Forward

To address the issues raised by stakeholders, the government must engage in consultations with all parties involved in the transportation sector. A balanced approach that considers the concerns of drivers, transport operators, and the legal framework is essential. This could involve revisiting specific aspects of the BNS and ensuring that penalties are proportionate and just. Open dialogue and collaboration between the government, stakeholders, and the judiciary will be key in finding a solution that ensures road safety without unduly burdening drivers or hindering the transportation industry.

**Syllabus:** Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation

Mains: Issue of aviation safety in India and the way forward

**Context:** Recently a JAL(Japan Airlines) Airbus A350 collided with a Coast Guard plane at Tokyo's Haneda airport, resulting in fatalities on the smaller aircraft.

# Japan's Case Study:

- Notable professionalism in JAL's crew training saved 379 lives during a fiery accident through orderly evacuation.
- Efficient use of limited exits despite a non-functional cabin public address system showcased high standards.

# **Other Incidents:**

# • Air France Flight AF 358 (August 2, 2005):

- Overshot the runway while landing in Toronto during heavy rain.
- Despite the aircraft catching fire, all 309 passengers were evacuated, although 11 sustained injuries.
- Some passengers were observed leaving the aircraft with their hand luggage, potentially hindering the evacuation process.

# Emirates Flight EK 521 (August 3, 2016):

- Experienced a crash landing during its arrival in Dubai from Thiruvananthapuram.
- The evacuation process was compromised due to several passengers attempting to retrieve their hand luggage, causing delays and potentially increasing risks during the emergency.

# • Air India Airbus Hard Landing at Dubai (December 20, 2023):

- The aircraft experienced an extreme hard landing with an impact of 3.5g, resulting in substantial stress on the landing gear.
- There were concerns regarding delayed reporting and transparency about the incident, which only came to light after observations from tracking sites.

# Safety Concerns and Training Flaws:

- Discrepancies in reporting safety incidents in India compared to Japan's transparent approach.
- Air India's mishandling of an extremely hard landing incident raises questions about safety reporting, training, and management decisions.
- Failure to address concerns raised by an instructor regarding pilot training and experience, leading to potential safety risks.

# Way Forward:

- Emphasize the importance of proactive reporting and transparent communication in the aviation industry.
- Air India needs to reevaluate its safety protocols, training standards, and management practices.
- There is a need for stringent criteria, beyond seniority, in selecting crews for new aircraft like the Airbus A350.
- There is a need for both DGCA and Air India to prioritize safety, conduct thorough investigations, and learn from global incidents for continuous improvement.

**Nut Graf:** In the wake of the recent Japan Airlines incident, global aviation safety standards are scrutinized. Drawing on varied examples, including the recent Air India hard landing, there is a need for heightened transparency, passenger discipline, and rigorous training protocols in the industry.

#### 6. An ambitious push for values, ethics in higher education

Mains: Ethics in Higher Education

#### Introduction:

- The University Grants Commission (UGC) issues guidelines at a rapid pace, with some key ones often escaping the attention of the higher education community.
- Mulya Pravah 2.0, a modified version of the 2019 notification, aims to instill human values and professional ethics in higher education institutions.
- The initiative is a response to unethical practices identified in a survey of human resource managers, including favouritism, sexual harassment, and gender discrimination.

#### **Emphasis on Transparency:**

- Mulya Pravah 2.0 underscores the necessity for transparency in administration, advocating decision-making based solely on institutional and public interest.
- Aims to eliminate discriminatory privileges, urging punitive measures against corruption and emphasizing the importance of encouraging free advice at all levels.
- Expects institutions to uphold values such as integrity, accountability, inclusiveness, sustainability, and global citizenship.

#### Issue of Confidentiality:

- Emphasis on maintaining confidentiality raises concerns about conflicting with the right to information for accountability.
- It is suggested to mandate voluntary disclosure of critical information, meeting agendas, proceedings, annual reports, and audited accounts for public scrutiny.
- Transparency is required to deter malpractices and restore public confidence in institutional workings.

# **Unions and Support:**

- Mulya Pravah 2.0 expects staff and student unions to support the administration in development activities and raise issues in a dignified manner.
- It raises concerns about unions acting as a secondary team for the administration, potentially discouraging them from addressing member concerns.
- It is important to recognise unions as pressure groups, exerting collective influence to protect the rights and interests of their members.

# **Challenges and Concerns:**

- Lack of clarity on what constitutes a "dignified manner" for raising issues may lead to potential misuse and stifling of collective voices.
- Concerns about the banning and suspension of unions and associations, with accusations of violating codes of conduct and acting against institutional interests.
- Advocates for the importance of discordant voices in strengthening institutions by improving the quality and sustainability of decisions.

**Nut Graf:** Mulya Pravah 2.0 by the University Grants Commission aims to instill ethics in higher education. Despite promoting transparency and accountability, concerns arise over confidentiality, union autonomy, and potential stifling of dissent, highlighting challenges for implementation.

#### 7. Regulating India's online gaming industry

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**Syllabus:** Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.

Mains: Rising online gaming industry: Opportunities, challenges and need for regulation

#### Introduction:

- Market failures, including monopolies, externalities, and information asymmetries, can diminish economic value and erode societal well-being.
- Government regulatory intervention is essential when benefits surpass potential costs, safeguarding public interest and trust.

#### Digital Markets in India:

- India has the world's second-largest Internet user base (692 million users) and ranks eighth globally in time spent on mobile apps.
- Average daily mobile app usage increased by 32% since 2019, with 82% dedicated to media and entertainment, and half of this engagement on social media.
- Challenges include Al-generated deep fake videos, blurring the lines between reality and simulation.

#### **Online Gaming Industry Overview:**

- Online gaming in India is a home-grown start-up ecosystem growing at 27% CAGR.
- Estimated contribution of AI and online gaming to India's GDP: \$300 billion by 2026-27.
- Concerns in the industry: addiction, mental illness, suicides, financial fraud, privacy, data security, money laundering, and national security.

#### Challenges in the Online Gaming Industry:

- Lack of adequate regulation leads to market failure.
- Growth of illegal offshore gambling and betting markets with a \$100 billion annual deposit from India.
- Clandestine operations caused substantial losses to the exchequer, estimated at \$45 billion per annum in taxation.

#### Need for Regulation:

- Urgent need for robust regulation to address user harm and financial losses.
- Some State governments attempt to ban online gaming, but the cross-border nature of the Internet makes enforcement difficult.
- Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, a commendable step, but delayed notification of Self-Regulatory Bodies stalls progress.
- Strict regulation is imperative to protect 373 million gamers in India.

# Global Perspective – U.K. Model:

- The U.K. has a centralized government regulator for online gaming.
- Quarterly reports on the effects of regulation show significant fines for operators violating player protection requirements.
- Strict enforcement and harm reduction efforts have led to a decline in disordered gaming and medium-to-low-risk gaming behaviour.

#### Importance of Regulatory Framework:

- Unregulated markets may not deliver the greatest benefit to society.
- High taxes and weak regulatory enforcement create a fertile ground for a shadow economy, as seen in the Indian online gaming industry.
- Establishing a strict regulatory framework is crucial for protecting digital citizens, national interests, and ensuring responsible growth of the online gaming sector.

#### 8. Why was FCRA registration for several NGOs cancelled?

**Syllabus:** GS-2, Development Processes and the Development Industry — the Role of NGOs, SHGs, various groups and associations

Mains: FCRA and its impact on NGO

#### **Background: FCRA Registration Cancellations**

- **NGOs Affected:** The FCRA registration of two notable NGOs, the Centre for Policy Research (CPR) and World Vision India (WVI), was cancelled recently.
- **Monitoring Authority:** The implementation of the Foreign Contribution Regulation Act, 2010 (FCRA) is overseen by the Union Ministry of Home Affairs (MHA).

#### **Renewal Process and Amendments:**

- **COVID-19 Impact:** The registration renewal for thousands of NGOs was due in 2020-2021, but due to the pandemic, many NGOs couldn't complete the process.
- Amendments in 2020: Amendments to the FCRA Act in 2020 affected the renewal process, leading to an extension of the renewal deadline multiple times, with the latest extension until March 31, 2024.

#### FCRA and Foreign Donations Regulation:

- Purpose of FCRA: FCRA regulates foreign donations to prevent adverse effects on the country's internal security.
- **Mandatory Registration:** It is compulsory for associations, groups, or NGOs intending to receive foreign donations to register under the FCRA.
- **Registration Validity:** Initially valid for five years, NGOs must apply for renewal to continue receiving foreign contributions.
- **Permissible Activities:** Registered groups can utilize foreign contributions for social, educational, religious, economic, and cultural programs.

#### The Scale of Registration Cancellations:

- **Number of Cancellations:** Since 2015, over 16,000 NGOs have faced FCRA registration cancellations for alleged violations.
- **Current Status:** As of January 22, 16,989 FCRA-registered NGOs were active, with nearly 6,000 NGOs losing their registration from January 1, 2022.

#### **Concerns and Risk Assessment:**

- **Vulnerability of NGO Sector:** A 2012 MHA report highlighted the vulnerability of the NGO sector to money laundering and terrorist financing risks.
- **Enforcement Measures:** Rigorous enforcement and coordination with foreign countries for law enforcement are deemed necessary.

#### **Recent FCRA Registrations and Rejections:**

- **Record Registrations:** In 2023, a record number of 1,111 associations were granted fresh FCRA registrations.
- **Religious Category:** Nearly half of the fresh registrations under the religious category were for Christian NGOs.
- **Applications Status (2021-2022):** Out of 1,615 applications for FCRA registration, 722 were granted clearance, and 225 were rejected.

#### **CPR and WVI Registration Cancellations:**

- Allegations Against CPR: MHA accused CPR of diverting foreign donations for protests, legal battles, and violating FCRA norms through the production of current affairs programs.
- **CPR Response:** CPR labelled the decision as incomprehensible and disproportionate, challenging the basis of a research institution's functioning.
- WVI Allegations: WVI's registration was cancelled for alleged FCRA violations spanning from 2012-13 to 2020-21, with accusations of affecting India's economic interests.
- WVI's Foreign Donations: WVI, registered under the FCRA in 1986, received the highest amount of foreign donations among all NGOs.

**Nut Graf:** Amidst ongoing cancellations of Foreign Contribution Regulation Act (FCRA) registrations for NGOs, the recent revocation of the Centre for Policy Research (CPR) and World Vision India (WVI) draws attention. Allegations include fund misuse and violation of FCRA norms, raising concerns about the regulatory landscape and the NGOs' responses.

#### 9. Populism does not help public health

**Syllabus:** GS-2, Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.

Mains: Need for long-term planning in Public Health

#### Introduction: The Silent Battle in Public Health

- The fight for public health in India involves preventing diseases like smallpox, polio, neonatal tetanus, and measles.
- Political leaders often prioritize tangible achievements over preventive efforts, favouring initiatives with immediate results.

#### **Pitfalls of Populist Health Policies:**

- Populist health policies focus on new hospitals, subsidized treatments, and emergency response, often overshadowing preventive measures.
- Budgetary constraints hinder the implementation of these schemes, diverting attention from critical areas like sanitation and disease surveillance.

#### Dengue: A Case Study in Misplaced Priorities

- Immediate relief camps take precedence over long-term strategies for diseases like dengue.
- Lack of focus on vector control, vaccine development, and public health infrastructure strains the healthcare system.

#### Need for Scientific Evidence in Decision-Making:

- Public health decisions should be driven by scientific evidence and long-term goals, not short-term political interests.
- Separating healthcare from political processes can ensure data-driven policies.

#### **Historical Insights and Present Disparities:**

- Insights from Joseph Bhore in 1946 highlight the economic and human cost of neglecting preventive health measures.
- Discrepancies between policy targets and actual prevalence underscore gaps in public health efforts.

#### Influence of the Pharmaceutical Industry:

- The profit-driven nature of the pharmaceutical industry may sideline public health priorities.
- Socio-economic factors contribute to the high incidence of diseases like tuberculosis in India.

#### Gaps in Education and Behavioural Change:

- The lack of specialized courses in public health engineering indicates a gap in the multidisciplinary approach required.
- Public health management needs expertise from various fields to address behavioural change and societal challenges.

# Autonomy for Effective Public Health Management:

- Effective public health management requires autonomy, separating powers to encompass preventive measures, policy formulation, and community health.
- Placing Health Ministries under elected officials, similar to space and atomic energy departments, can provide autonomy while aligning policies with immediate needs.

# **Balancing Expert-Driven Decisions and Public Aspirations:**

- Placing health decision-making under elected officials can balance expert-driven decisions with the immediate and practical needs of the population.
- Sustainable health strategies should address both immediate and future health needs.

# **Conclusion: Navigating Challenges for Holistic Public Health**

- Democracy is not inherently harmful to public health, but the management within democratic systems requires a more holistic, long-term approach.
- Separating healthcare decision-making from short-term political goals is crucial for developing sustainable health strategies.

**Nut Graf:** In India, the battle for public health faces challenges as populist policies prioritize immediate results over preventive efforts. Dengue serves as a case study, highlighting the need for evidence-based decision-making and autonomy, emphasising a holistic, long-term approach to addressing public health issues.

#### **10. Early nutrition impacts cognitive development**

**Syllabus:** GS-2, Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.

Mains: Impact of early nutrition care on the cognitive development of children

# Early Nutrition and Cognitive Development:

- **Stunting's Irreversible Impact:** Stunting not only affects a child's height but also significantly impacts cognitive development.
- Lack of Understanding: The processes linking early childhood stunting to lower educational achievements, especially in low- and middle-income countries, are not well understood.
- **Need for Deeper Insight:** A better understanding of the underlying mechanisms is crucial for formulating effective policies to enhance educational outcomes in such contexts.

# Challenges in Research:

- Focus on Test Scores: Research often focuses on cognitive-achievement test scores, like math and reading, which may not fully reflect inherent cognitive skills.
- **Complex Assessment:** Achievement tests depend on both cognitive abilities and access to education, making the assessment of cognitive skills complex and potentially misleading.

#### **Recent Studies on Under-nutrition and Cognitive Skills:**

- **Study Overview:** A recent study in 'World Development' by Sánchez et al. explores the link between early under-nutrition and four key cognitive skills developed later in childhood.
- **Executive Functions:** The study focuses on working memory, inhibitory control, long-term memory, and implicit learning, with the first two measuring executive functioning.



• **Findings:** Stunting at approximately age 5 is negatively related to executive functions, even when accounting for household fixed effects.

## Implications for India:

- **Connection to Educational Achievement:** The study underscores the critical importance of early childhood nutrition as a determinant of cognitive development and later educational outcomes.
- Addressing Stunting in India: Poshan Abhiyaan and Integrated Child Development Services play significant roles in addressing stunting by focusing on nutrition and holistic development.

#### Strategies for Improved Child Nutrition in India:

- Early Breastfeeding Promotion:
  - **Government Initiatives:** Programs like the Mother's Absolute Affection Programme need expansion to provide comprehensive lactation support.
  - **Mobile Technology:** Leveraging mobile technology to educate mothers about exclusive breastfeeding in the first six months is vital.
  - **Maternal Nutrition:** Improving maternal nutrition is crucial for the health of both mothers and babies.
- Diversifying Children's Diet:
  - Community-Based Complementary Feeding: Implementation and scaling up of communitybased programs to educate parents on adding a variety of nutrient-rich foods to their child's diet.
- Increasing Anganwadi Workers:
  - Addressing Staff Shortage: Adding an extra Anganwadi worker to each centre can double preschool instructional time, improve academic scores, and reduce child stunting.

#### **Existing Initiatives in India:**

- **Poshan Abhiyaan and Integrated Child Development Services:** Focusing on reducing malnutrition by enhancing the quality of services for pregnant women, mothers, and children.
- Jal Jeevan Mission and Swachh Bharat Mission: Addressing water and sanitation issues to reduce the incidence of diarrhoea and stunting.

#### **Conclusion:**

• **Comprehensive Approach:** Implementing the outlined strategies can significantly improve child nutrition, combat undernutrition, and contribute to better developmental outcomes for children in India.

**Nut Graf:** Early childhood stunting irreversible impacts cognitive development. A recent study in 'World Development' links stunting at age 5 to reduced executive functions. This underscores the critical role of early nutrition in India, necessitating strategies like breastfeeding promotion, diversified diets, and increased Anganwadi workers.

#### **11.** A blurred mapping of internal female migration

**Syllabus:** GS-2, Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation

Mains: Underrepresentation of women in Periodic Labour Force Survey – Implication and way forward

**Context:** India's internal migration faces gender bias as national surveys inaccurately portray the challenges faced by migrant women.

#### **Inaccuracies in National Surveys:**

- The Periodic Labour Force Survey (PLFS) estimates internal migration in India at 27% from June 2020 to 2021.
- Conventional literature often portrays migration as a male-dominated narrative, neglecting the significant presence of working-age women.
- National surveys, such as PLFS, provide an inaccurate picture, primarily focusing on the primary reasons for migration without delving into secondary motivations like climate shocks or food insecurity.
- The data on migrant women's labour force participation is often misleading, with underreporting of employment status, especially in casual employment sectors like agriculture and domestic help.

#### **Underreporting of Employment Status:**

- The PLFS data during the COVID-19 pandemic indicates that approximately 75% of migrant women are unemployed, but anecdotal evidence suggests significant engagement in casual employment.
- Definitional issues and women's beliefs contribute to the underreporting of employment, as many women view unpaid family work or self-employment as extensions of domestic commitments rather than formal employment.
- The definition used by national surveys classifies women without formal contracts as unemployed, leading to a skewed representation of their actual involvement in the labour force.

#### Human and Social Capital Barriers:

- Entry barriers to the formal labour force for migrant women may be attributed to the need for more human and social capital.
- PLFS data reveals that 85% of migrant women have less than 10 years of education, potentially limiting their employment opportunities.
- Lack of social networks, especially after migration, further hinders employment chances for women.
- Despite comparable educational levels between migrant and non-migrant women, the former are
  proportionally less employed, emphasizing the role of social and human capital in labour force
  participation.

#### Invisible Challenges and Policy Gaps:

- Female migration for labour increased by 101% between 2001 and 2011, yet these women face significant hurdles and marginalization.
- Women migrants remain largely invisible in political discourse, leading to a lack of targeted policies addressing their unique needs.
- The absence of female-specific data in policymaking results in poorly informed decisions, as demonstrated by initiatives like One Nation One ration card and e-Shram predominantly catering to male migrants.
- To address these issues, steps are recommended, including enhanced data collection on socioeconomic conditions post-migration, increased awareness through changed narratives, and a focus on female-specific data in policymaking.

**Nut Graf:** Despite comprising a significant portion of India's internal migrant pool, women's challenges remain overlooked. Inaccurate surveys, underreported employment, and policy gaps contribute to their marginalized status in labour migration.



# **DISASTER MANAGEMENT**

#### 1. Monster quake in Japan leaves 48 dead; rescuers scramble in search of survivors

Syllabus: Disaster management

Mains: Disasters in Japan

**Context:** Tsunami waves hit Japan's coasts after a powerful 7.6-magnitude earthquake shook the north-central part of the country, leading to urgent evacuation alerts.

#### What happened?:

- A powerful 7.5-magnitude earthquake struck Ishikawa prefecture in Japan, causing widespread destruction and triggering tsunami waves over a meter high.
- The disaster claimed the lives of at least 48 people, with rescuers scrambling to find survivors amidst the rubble.
- The Noto Peninsula witnessed extensive damage, including building collapses, flattened houses, sunken fishing boats, and landslides on highways

#### Why is Japan prone to earthquakes and tsunamis?

- Japan is prone to earthquakes and tsunamis due to its location along the Pacific Ring of Fire, which is an area with a lot of seismic and volcanic activity. This region encircles the Pacific Ocean and is characterized by the presence of several tectonic plate boundaries. The Pacific Plate, Philippine Sea Plate, and Eurasian Plate converge around Japan, leading to frequent tectonic movements.
- **Tectonic Plate Boundaries:** Japan sits at the convergence of several major tectonic plates, including the Pacific Plate, Philippine Sea Plate, and Eurasian Plate. The interactions between these plates result in intense geological activity, causing earthquakes and volcanic eruptions.
- **Subduction Zones:** The Pacific Plate is subducting beneath the North American Plate along the Japan Trench to the east of Japan. This subduction process can lead to powerful undersea earthquakes, which may trigger tsunamis.
- Ring of Fire: Japan is part of the Pacific Ring of Fire, a horseshoe-shaped zone known for its high seismic and volcanic activity. This region is prone to earthquakes and volcanic eruptions as a result of the tectonic plate movements.
- **Underwater Geography:** The underwater geography, including deep ocean trenches and the uneven ocean floor, contributes to the potential for tsunamis. When earthquakes occur under the ocean, they can displace large volumes of water, generating tsunamis.

#### SDG and Sendai Framework related to Disasters:

#### Sustainable Development Goals (SDGs)

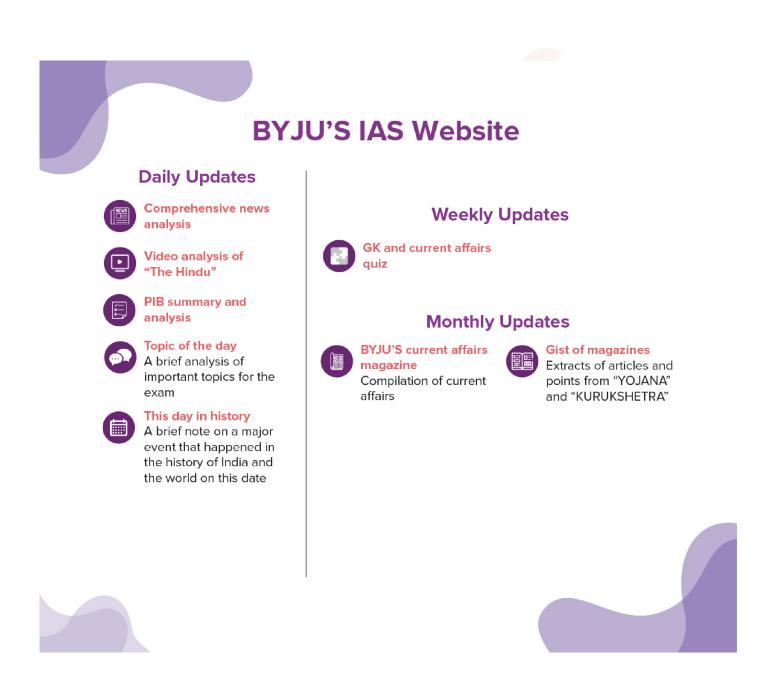
The United Nations introduced the 17 Sustainable Development Goals (SDGs) in September 2015, succeeding the Millennium Development Goals. Unlike the MDGs, the SDGs are universal and apply to all countries, with a target to achieve them by 2030. SDG 11 specifically focuses on making cities inclusive, safe, resilient, and sustainable.

- **SDG 11:** SDG 11 aims to ensure inclusive, safe, resilient, and sustainable cities and human settlements globally.
- **Target 11.5:** By 2030, cities should significantly reduce disaster-related deaths, the number of affected people, and economic losses in proportion to global gross domestic product.
- **Target 11B:** By 2020, there should be a substantial increase in the number of cities and settlements adopting integrated policies, including those for climate change mitigation, disaster resilience, and holistic disaster risk management at all levels, aligning with the Sendai Framework for Disaster Risk Reduction 2015-2030.



## Sendai Framework

- The Sendai Framework, endorsed by the UN General Assembly, serves as a roadmap to enhance community resilience to disasters, aiming for a substantial reduction in disaster risk and losses over the next 15 years.
- The targets emphasize supporting least-developed countries in constructing sustainable and resilient buildings using local materials through financial and technical assistance.



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# **GEOGRAPHY**

#### 1. Fog formation

Syllabus: Salient Features of World's Physical Geography

#### Mains: Climatology

**Introduction:** As winter tightened and intensified in northern India, the region experienced a notable phenomenon – a dense blanket of fog covering several states such as Punjab, Haryana, Rajasthan, and Uttar Pradesh, impacting daily life and transportation.

#### **Understanding Fog: Formation and Types**

- Fog is created when small water droplets form as a result of cooled and condensed evaporated water.
- Fog materializes when there is a temperature difference between the ground and the air, a common occurrence during Indian winters.
- It occurs as temperatures drop at night and in the early morning, causing aerosols in the atmosphere to condense. High humidity, coupled with ample water vapour or moisture, contributes to the formation of fog.
- Another type of fog, known as radiation fog, occurs after an unseasonably warm day with high humidity followed by rapidly dropping temperatures.

#### **Understanding Fog: Causes**

- Environmental factors that contribute to the formation of fog include low temperatures, low wind speed, moisture availability, and the presence of aerosols.
- Northern India is prone to fog due to its location in the entire Indo-Gangetic plains, where all the necessary conditions for fog formation—low temperatures, low wind speed, moisture availability, and abundant aerosols—are present during the winter season.
- Moisture incursion into this region can happen when a Western Disturbance, a precipitation
  pattern bringing rain to North India during winter, moves across the northern parts. Alternatively,
  moisture incursion can occur from the Arabian Sea.

**Nut Graf:** There is a need to understand and navigate the challenges posed by winter fog in northern India, acknowledging the role of meteorological conditions and the need for public awareness during such weather phenomena.

#### 2. Gearing up for change

Syllabus: GS-1, Physical Geography of India & World

Mains: The changing monsoon patterns in India and its impact on livelihoods across various sectors.

**Context:** The India Meteorological Department (IMD), celebrating its 150th year, was initially established during colonial times to understand the southwest monsoon's impact on harvests. Over the years, the IMD has gathered extensive meteorological data, enabling comprehensive weather and climate analyses. A recent study by the Council on Energy, Environment, and Water (CEEW) reveals critical insights into monsoon trends at the sub-divisional level from 1982-2022.

#### Background

- 3000 BCE Upanishads Cloud formation, rain, seasonal cycles caused by the movement of the earth around the sun.
- Varahamihira's Brihatsamhita 500 CE Knowledge of atmospheric processes.

- Rains come from the sun (Adityat Jayate Vrishti) and that good rainfall in the rainy season was the key to bountiful agriculture and food for the people.
- Kautilya's Arthashastra Scientific measurements of rainfall and its application to the country's revenue and relief work.
- Kalidasa in his epic, 'Meghdoot' seventh century Date of onset of the monsoon over central India and traces the path of the monsoon clouds.
- India is fortunate to have some of the oldest meteorological observatories in the world.
- British EIC At Calcutta in 1785 and Madras (now Chennai) in 1796.
- The Asiatic Society of Bengal founded in 1784 at Calcutta, and in 1804 at Bombay (now Mumbai), promoted scientific studies in meteorology in India.
- A disastrous tropical cyclone struck Calcutta in 1864 and this was followed by failures of the monsoon rains in 1866 and 1871.
- In 1875, the Government of India established the India Meteorological Department, bringing all meteorological work in the country under a central authority.
- Progressively expanded its infrastructure for meteorological observations, communications, forecasting and weather services.
- The British administration, concerned about revenues, was intimately aware of the influence of the monsoon on harvests and thus invested in determining whether past observations of wind, rain and sunshine could be used to predict future torrents and droughts.
- IMD has collected enormous meteorological data stores that underlie its monsoon forecasts.

# **Monsoon Trends**

- Increasing Rainfall: The CEEW study indicates that 55% of India's tehsils have witnessed an increase in monsoon rainfall, while 11% experienced a decrease.
- Impact on Agriculture: Approximately 68% of tehsils with reduced rainfall faced challenges during all four monsoon months, affecting the crucial sowing period for kharif crops. The Indo-Gangetic plains, northeastern India, and the Indian Himalayan region, key contributors to India's agricultural production, are particularly affected.
- Regional Disparities: Tehsils in Rajasthan, Gujarat, central Maharashtra, and parts of Tamil Nadu, historically dry, are now experiencing increased rainfall, introducing new challenges.
- Northeast Monsoon Changes: The northeast monsoon, impacting peninsular India from October to December, has seen a more than 10% increase in rainfall in the past decade in significant proportions of Tamil Nadu, Telangana, and Andhra Pradesh.

# **District-wise Variability**

- Deficient and Excessive Rainfall: About 30% of India's districts faced several years of deficient rainfall, while 38% witnessed excessive rainfall, indicating a high degree of variability.
- Changing Rainfall Patterns: The study highlights shifts in rainfall patterns, with some traditionally dry areas becoming wetter, emphasizing the need for adaptive measures.

# **Climate Resilience**

- Importance of Resilience: Given the observed changes in monsoon patterns, there is a pressing need for climate resilience at the regional and sub-district levels.
- Resource Allocation: The study underscores the importance of allocating funds and resources based on region-specific forecasts to address the unique challenges different areas face.
- Government Initiatives: Prioritizing regional and sub-district forecasts over national ones is proposed as a commendable step forward, aligning governmental efforts with the current climate scenario.

# Way forward:

- Region-specific Plans: Develop tailored climate resilience plans for each region, considering local agricultural practices, geography, and vulnerabilities.
- Enhanced Forecasting: Invest in advanced technologies and methodologies for improved regional and sub-district level weather forecasting.

- Community Engagement: Involve local communities in climate resilience initiatives to ensure the effectiveness of adaptation strategies.
- Policy Reorientation: Align national policies with region-specific needs, promoting sustainable practices and resource management.

**Nut Graf:** As India faces evolving monsoon patterns, a proactive approach to climate resilience is imperative. By prioritizing region-specific plans and allocating resources accordingly, the government can play a pivotal role in mitigating the impact of changing weather patterns on agriculture and local communities.

#### 3. No snowfall in Kashmir

**Syllabus:** Cyclones, hurricanes, earthquakes, Location of industries in India, Water bodies, Climate change and Natural Resources

Mains: Impact of climate change on snowfall in India

**Context:** Unusual weather patterns have left regions like Kashmir, Himachal Pradesh, and Uttarakhand devoid of the customary snowfall during January. This departure from the norm raises questions about the contributing factors, including the role of Western Disturbances, El-Nino conditions, and the impact of shifting jet streams. Understanding these elements is crucial for comprehending the absence of snowfall in these regions.

#### Lack of Snowfall in Kashmir and Himachal Pradesh

- Historical Context: January typically witnesses abundant snowfall in Kashmir and Himachal Pradesh, creating ideal conditions for winter sports and tourism.
- Current Scenario: The winter of the present year contrasts sharply, with dry conditions reported in popular destinations like Gulmarg and Pahalgam in Kashmir and dry slopes in Himachal Pradesh.
- Meteorological Records: The India Meteorological Department (IMD) notes a 99.7% rainfall shortfall in Himachal Pradesh, marking its driest January since 1901.

#### Factors Contributing to Lack of Snowfall

- Temperature Dynamics: Although temperatures have been low since December, the key to snowfall lies in having both adequate moisture and atmospheric temperatures at or below zero degrees Celsius.
- Western Disturbances (WDs): WDs, vital for bringing rain and snow to northern India, have been notably absent this winter. Their decline has impacted the Western Himalayan Region, receiving 80% less rain than usual.
- El-Nino Conditions: The prevailing El-Nino conditions in the equatorial Pacific Ocean might have played a role, contributing to the decline in WDs.
- Jet Streams: Powerful winds known as jet streams, essential for transporting WDs, have shifted northwards due to a warming Arctic. This shift enhances cold air subsidence over north India, contributing to the lack of moisture for snowfall.

#### **Implications of Changing Weather Patterns**

- Global Warming Impact: The disruption in traditional weather patterns, characterized by extended dry periods and intense wet spells, aligns with the concerns raised by meteorologists and climate scientists regarding global warming.
- Flash Floods in Uttarakhand: Recent years have witnessed a rise in Western Disturbances in February and March, leading to flash floods in Uttarakhand and Himachal Pradesh.



#### Issues

- Tourism and Winter Sports: The absence of snowfall affects the tourism industry and winter sports in regions heavily dependent on these activities.
- Environmental Concerns: Changing weather patterns, attributed to global warming, pose environmental challenges, including altered precipitation trends and the risk of extreme weather events.

#### Significance

 Understanding Climate Variability: The study of these weather anomalies provides valuable insights into the interconnected factors influencing regional climates and the broader implications of climate change.

#### Solutions

- Climate Resilience Strategies: Implementing adaptive measures to cope with changing weather patterns, including promoting sustainable tourism practices and conservation efforts.
- International Collaboration: Collaborate with global initiatives to address climate change, aiming to mitigate its impact on regional climates.

**Nut Graf:** The absence of snowfall in Kashmir and Himachal Pradesh highlights the intricate interplay of meteorological factors and the broader impact of climate change. As the world grapples with evolving weather patterns, proactive measures and international cooperation are imperative to address the challenges posed by changing climates and ensure sustainable development.





# **MISCELLANEOUS**

#### 1. XPoSat

- ISRO launched PSLV-C58 X-Ray Polarimeter Satellite (XPoSat) mission from Satish Dhawan Space Centre.
- XPoSat is the second X-ray polarimetry mission globally, following NASA's Imaging X-ray Polarimetry Explorer (IXPE).
- First dedicated scientific satellite by ISRO for space-based polarisation measurements of X-ray emissions from celestial sources.
- Carries two payloads: POLIX (Polarimeter Instrument in X-rays) developed by Raman Research Institute and XSPECT (X-ray Spectroscopy and Timing) by Space Astronomy Group of URSC, Bengaluru.
- During the mission, the PSLV Orbital Experimental Module-3 (POEM-3) experiment was also executed.
- Launch also includes 10 payloads developed by startups, educational institutions, and ISRO centres.
- Significant payload includes ISRO Fuel cell Power System (FCPS) with potential applications in India's proposed space station by 2035.
- ISRO Chairman S. Somanath announced 2024 as the year of Gaganyaan readiness, with two more test flights planned for the Flight Test Vehicle Abort Mission (TV-D) followed by unmanned flights.

#### The Free Movement Regime at the Myanmar border is to end soon, entry into India will need a visa

**Context:** Central Government is preparing to do away with the Free Movement Regime (FMR) along the Myanmar border.

**India – Myanmar Border:** The Myanmar border is peaceful and friendly yet it is very sensitive. India shares a 1643 km border with Myanmar, touching four states Arunachal Pradesh, Nagaland, Manipur and Mizoram and is unique in many ways. There are over 240 villages with over 2.5 Lakh people within 10 Km of the Indo-Myanmar border.

#### What is the Free Movement Regime (FMR)?

- The Free Movement Regime (FMR) is a unique agreement which was initiatied in the 1970s allowing visa-free movement for individuals belonging to hill tribes, who are citizens of either India or Myanmar and reside within a 16 km radius on either side of the border. They can stay up to 72 hours with effective and valid permits issued by the designated authorities on either side. They can cross the border on the production of a border pass, usually valid for a year, and can stay for up to two weeks per visit.
- The FMR helped the tribes maintain their age-old ties and has been in place keeping in view the traditional social relations among the border people. It helps genuine people living in the proximity of the border.

#### **Revised Implementation of Free Movement Regime (FMR):**

- In response to the Naga, Mizo, and Meitei insurgencies in August 1968, amidst the turbulent conditions, the Indian Government revisited the provisions of the FMR. Consequently, permits for travelling across the Myanmar border were introduced, a regulation that persisted for the next four decades.
- However, during the 1990s and early 2000s, the surge in drug trafficking, arms smuggling, and increased insurgent movement along the India-Myanmar border prompted the Indian government to reevaluate the FMR.



- In 2004, adjustments were made, restricting the FMR limits to 16 km and allowing tribal people to cross the international border exclusively through three officially designated points.
- The FMR was implemented in 2018 under the Central Government's Act East policy during a period of improving diplomatic relations between India and Myanmar. The Free Movement Regime (FMR) was initially scheduled for implementation in 2017 but was postponed due to the Rohingya refugee crisis.
- The Manipur government has suspended the FMR since 2020, following the COVID-19 pandemic.

#### Issues with FMR:

- Over the years, the Free Movement Regime (FMR) has played a vital role in facilitating trade, fostering cultural exchanges, and promoting people-to-people interactions. Regrettably, its provisions have been exploited by Indian insurgent groups, allowing them to cross into Myanmar, undergo arms training, establish safe havens, and re-enter India to carry out subversive attacks.
- The FMR has been misused by militants and criminals involved in smuggling weapons, narcotics, contraband goods, and Fake Indian Currency Notes (FICN). Taking advantage of the free-movement regime, they occasionally enter India, commit crimes, and then escape to their relatively safer hideouts.
- Following the military coup in Myanmar in February 2021, over 40,000 refugees sought refuge in Mizoram, and around 4,000 refugees reportedly entered Manipur. This influx poses risks to internal security and strains available resources in the affected regions.

#### **Central Government's Stand:**

- Introduction of Smart Fencing: The government plans to implement an advanced smart fencing system for the entire India-Myanmar border. This initiative aims to enhance border security and regulate movement.
- End of Free Movement Regime (FMR): The Centre intends to conclude the Free Movement Regime (FMR) along the Indo-Myanmar border. The decision aligns with efforts to prevent misuse by insurgent groups conducting attacks in India and escaping to Myanmar.
- **Fencing Timeline:** The entire border is slated to be fenced within the next four and a half years. Once completed, individuals entering through the border will be required to obtain a visa.

**Reasons for Change:** The shift is driven by the need to curb illegal activities, including insurgent attacks, illegal immigration, and smuggling of drugs and gold, which are facilitated through the existing FMR.

#### 3. SpaceX's Falcon9 to launch India's GSAT20; satellite to spread broadband coverage

**Context:** NewSpace India Ltd. (NSIL), the commercial arm of the Indian Space Research Organisation (ISRO), is set to launch GSAT-20 (renamed GSAT-N2) on SpaceX's Falcon-9 rocket in the second quarter of 2024.

#### **Issues:**

- India faces disparities in broadband access, especially in remote areas.
- Reliance on foreign launch vehicles raises cost and dependence.

#### Significance:

- GSAT-20 aims to offer cost-effective Ka-Ka band HTS capacity, focusing on broadband, IFMC, and cellular backhaul services, with pan-India coverage, including remote regions and bridging the digital divide and boosting remote economies.
- Increased satellite ownership by NSIL enhances India's space autonomy and reduces reliance on foreign providers.
- This launch marks a successful transition towards demand-driven satellite missions, catering to specific user needs.



**SpaceX** is an American aerospace manufacturer and space transportation services company founded in 2002 by Elon Musk. They are known for their innovative approach to space travel, focusing on reusability and affordability.

**Falcon 9** is a reusable, two-stage rocket designed and manufactured by SpaceX for the reliable and safe transport of people and payloads into Earth orbit and beyond. Falcon 9 is the world's first orbital-class reusable rocket. Reusability allows SpaceX to refly the most expensive parts of the rocket, which in turn drives down the cost of space access.

#### 4. India's heavy digital footprint

**Context:** India's substantial digital footprint, attributed to a population of over 1.4 billion and a rapidly growing economy, has made it an attractive target for cybercriminals. A group of cybersecurity providers has issued warnings regarding the vulnerabilities in the digital landscape, predicting a surge in data breaches, ransomware activities, identity-based attacks, and the looming threat of deepfakes in 2024.

#### Issues

- **Digital Expansion:** India's large population and expanding economy create an extensive digital presence, increasing the potential attack surface for cybercriminals.
- **Rising Cyber Threats:** Anticipated increase in data breaches, ransomware activities, and identitybased attacks in 2024.
- **Cloud Adoption Challenges:** As organizations shift data, applications, and workloads to the cloud, the attack surface widens, providing more opportunities for threat actors.

#### Significance

- Global Cybersecurity Concerns: The warnings highlight not only national implications but also global concerns as cyber threats are borderless.
- Impact on Various Sectors: The scale and diversity of attacks are expected to impact almost every sector, necessitating a comprehensive approach to cybersecurity.

#### Way Forward:

- Enhanced Cybersecurity Measures: Strengthen cybersecurity infrastructure to mitigate the risks associated with the anticipated surge in cyber threats.
- **Cloud Security Protocols:** Develop and implement robust security protocols for organizations migrating to the cloud to minimize vulnerabilities.
- **Public Awareness Campaigns:** Educate the public about potential cyber threats, especially during events like the Olympic Games, to prevent falling victim to scams.
- **AI-Powered Cybersecurity:** Leverage artificial intelligence (AI) to combat evolving and sophisticated cyber threats, as highlighted by McAfee Corp.

#### 5. Deep-tech Startups

**Context:** The Indian government is poised to present a new deep tech policy to the Union Cabinet for approval. The draft policy, unveiled in July 2023 and subsequently refined based on industry feedback, aims to address challenges and foster growth in the deep tech sector.

#### **Overview of the Deep Tech Policy**

- Draft Release and Industry Feedback: The government released the draft of the deep tech policy in July 2023, seeking public input. Following feedback from industry stakeholders, a final version is now ready for Cabinet approval.
- **Definition of Deep Tech:** While lacking a precise definition, deep tech start-ups are broadly characterized by the development of intellectual property with significant potential impact, grounded in new scientific breakthroughs.

#### **Current Landscape and Concerns**

- **Deep Tech Start-up Landscape:** The draft policy references the Startup India database, indicating 10,298 recognized start-ups classified within the deep tech space as of May 2023.
- Percentage of Deep Tech Start-ups: Only around 10% of current start-ups fall under the deep tech
  category. This highlights a need for increased efforts and support to nurture and grow deep tech
  ventures.

# Focus Areas and Strategies

- **DSIR's Role in Technology Transfer:** The Department of Scientific and Industrial Research (DSIR), affiliated with the Council of Scientific and Industrial Research (CSIR), will concentrate on transferring technology to medium and small-scale industries.
- **CSIR's Target on Large Industries:** CSIR aims to target technology transfer to large industries.
- NRDC's Emphasis on Start-ups: The National Research and Development Corporation (NRDC), another CSIR entity, will specifically focus on supporting and fostering start-ups in the deep tech domain.

#### 6. VVPAT

**Context:** The Election Commission (EC) has responded to concerns raised by some political leaders regarding Electronic Voting Machines (EVMs) and Voter Verifiable Paper Audit Trail (VVPAT). The EC dismissed the concerns, asserting its full faith in the use of EVMs in elections and stating that there were no new assertions requiring further clarification.

#### **Election Commission's Response**

- **Rejection of Concerns:** The EC has dismissed the concerns raised by the leaders, emphasizing that there are no new assertions or legitimate doubts that require additional clarification.
- Faith in EVMs: The poll body affirmed its confidence in the use of EVMs, citing the legal framework, established jurisprudence, technical security, and administrative safeguards as grounds for trust in the electoral process.
- Introduction of VVPAT Rules: The EC highlighted that the rules governing paper slips in VVPAT were introduced on August 14, 2013.

#### 7. Prithvi programme

**Context:** The Union Cabinet has granted approval for the 'Prithvi' programme, a significant initiative with a budget of ₹4,797 crore. This program is designed to consolidate five existing schemes under the Ministry of Earth Sciences (MoES).

#### **Objectives of the 'Prithvi' Programme**

- Long-term Observations: The program aims to improve and expand observations of the atmosphere, ocean, geosphere, cryosphere, and solid earth to monitor changes in the planet over the long term.
- **Model Development:** It seeks to develop models for understanding and predicting weather, ocean conditions, and climate hazards.
- **Exploration of Earth's Regions:** The program focuses on exploring polar and high-seas regions to discover new phenomena and resources.
- **Technology Development:** 'Prithvi' aims to develop technology for exploring and sustainably harnessing oceanic resources for societal applications.
- **Translation of Knowledge:** It intends to translate insights from earth system science into services for societal, environmental, and economic benefits.

#### Integration with Deep Ocean Mission (DOM)

- Significance of DOM: The 'Prithvi' programme includes the Deep Ocean Mission (DOM), a significant component of the Ministry. One of DOM's objectives is to deploy a manned submersible 6,000 meters into the Indian Ocean.
- **Broad Subsumption:** The Secretary of MoES states that the Prithvi programme broadly subsumes all major activities, showcasing its comprehensive nature.

#### 8. Nepalis in Russia-Ukraine War

**Context:** Nepal has taken a significant step by prohibiting its citizens from seeking employment in Russia or Ukraine due to concerns over their involvement in the ongoing conflict. The decision, prompted by reports of Nepalese nationals serving in the Russian Army and facing casualties, reflects the government's commitment to safeguard its citizens and address potential security issues.

#### Ban on Employment in Russia and Ukraine

- **Government Action:** The Department of Employment in Nepal has issued a notice, imposing a ban on Nepali citizens from seeking employment in Russia or Ukraine.
- **Reasons Cited:** The ban is a response to reports indicating that Nepalese nationals have been recruited by the Russian Army to participate in the conflict in Ukraine.
- **Investigation:** The government is actively investigating the matter, emphasizing its commitment to verifying the reported involvement of Nepalese citizens in the conflict.

#### **Reported Casualties and Captures**

- Losses in the Russian Army: The notice highlights the loss of Nepalese nationals serving in the Russian Army, with at least 10 reported casualties.
- Captures by Ukraine: Four Nepali citizens have reportedly been captured by the Ukrainian side.

#### Unconfirmed Nepali Involvement on the Ukrainian Side

- **Speculations of Nepali Fighters:** There are unconfirmed speculations about some Nepalis fighting as hired soldiers on the Ukrainian side.
- **Government's Position:** The government has not officially confirmed this aspect, indicating the need for further investigation or clarification.

#### Issues

- **Recruitment by Foreign Armies:** The involvement of Nepalese citizens in the Russian Army for conflict engagement raises concerns about the recruitment practices and potential risks they face.
- **Unconfirmed Nepali Fighters:** Speculations about Nepali citizens participating as hired soldiers on the Ukrainian side add complexity to the situation, requiring thorough investigation.

#### 9. Aditya-L1 reaches destination, in orbit around L1

**Context:** India's maiden solar mission, Aditya-L1, has achieved a crucial milestone by reaching the Lagrangian point (L1) after 127 days since its launch on September 2, 2023.

• The spacecraft has been carefully placed in a periodic halo orbit, approximately 1.5 million km from Earth, by ISRO scientists and engineers.

#### **Precision Orbit Insertion**

- Aditya-L1 was placed in the halo orbit through a firing manoeuvre conducted by ISRO scientists at ISTRAC, Bengaluru.
- Precise calculations and corrections were made to ensure the spacecraft's exact placement in the intended halo orbit around the Lagrangian point.

# **Characteristics of the Orbit**

- The halo orbit is periodic, involving the continuous movement of the sun, earth, and the spacecraft.
- The selected orbit, located 1.5 million km from Earth, has an orbital period of about 177.86 Earth days.
- The specific halo orbit minimizes station-keeping manoeuvres, reducing fuel consumption and ensuring a continuous, unobstructed view of the sun.

# Significance

# • Mission Lifetime and Efficiency

- The chosen halo orbit ensures a mission lifetime of 5 years, allowing for prolonged observation of the sun.
- Minimizing station-keeping manoeuvres increases mission efficiency by conserving fuel resources.

# Advanced Scientific Observation

- Aditya-L1 carries seven payloads designed to observe the photosphere, chromosphere, and the sun's outermost layer (corona).
- The use of electromagnetic and particle detectors enhances scientific understanding of solar phenomena.

# Lagrange points

- According to the ISRO, for a two-body gravitational system, the Lagrange Points are the positions in space where a small object tends to stay if put there.
- These points in space for a two-body system such as the sun and Earth can be used by the spacecraft to remain at these positions with reduced fuel consumption. For two-body gravitational systems, there are a total of five Lagrange points, denoted as L1, L2, L3, L4, and L5.

# What is the L1 point?

- The L1 lies between the sun-earth line which is about 1.5 million km from the earth. The distance of L1 from Earth is approximately 1% of the Earth-sun distance.
- A satellite placed in the halo orbit around the L1 point has the major advantage of continuously viewing the sun without any occultation/eclipse.
- This will provide a greater advantage of observing solar activities continuously.
- There are currently four operational spacecraft at L1 which are WIND, Solar and Heliospheric Observatory (SOHO), Advanced Composition Explorer (ACE) and Deep Space Climate Observatory (DSCOVER).

# 10. Digital tools set to save Kashmiri script

**Context:** Microsoft and Google are set to introduce the Kashmiri language in their translation tools, marking a significant development for the language that has largely survived through oral traditions.

• The initiatives are expected to benefit the 70 lakh Kashmiri speakers in the Union Territory, preserving and popularizing the language, which has faced challenges due to historical factors and societal biases.

# Issues

# Historical Neglect

- Kashmiri, historically taught in schools and homes, faced neglect, leading to a decline in those who could write the script, reaching only 5% by 2013.
- The absence of formal education and promotion resulted in a limited reach for the language.

# • Societal Bias

- Perceived societal bias against speaking Kashmiri, with notions of inferiority associated with the language.
- Despite its rich literary tradition, Kashmiri faced challenges in gaining wider acceptance and use.



# Language Decline

- A diminishing number of individuals proficient in writing Kashmiri script.
- $\circ$   $\;$  Threats to the survival of the language as a result of a lack of promotion and formal education.

# Significance

# Technological Intervention

- Microsoft's MS Translator and the potential inclusion of Kashmiri in Google Translate represent a technological boost for the language.
- The initiatives aim to bridge the gap between oral traditions and written scripts, making the language more accessible.

# Cultural Preservation

- The inclusion of Kashmiri in translation tools preserves the language's cultural and literary heritage.
- Access to technology facilitates translation between Kashmiri and English, expanding the audience for Kashmiri literature.

# Language Revival

- Efforts by cultural organizations like Adbee Markaz Kamraz (AMK) and online campaigns have contributed to language revival.
- The initiatives by Microsoft and Google are seen as instrumental in revitalizing Kashmiri.

#### **11.** Centre notifies revised rules for quality control of pharma products

**Context:** The Union Health Ministry has notified revised rules under Schedule M of the Drugs and Cosmetics Rules, 1945, aimed at ensuring robust quality control for pharmaceutical and biopharmaceutical products. The revised Schedule M prescribes Good Manufacturing Practices (GMP) and introduces requirements for premises, plants, and equipment to elevate quality standards in the pharmaceutical sector.

#### Issues

#### • Outdated Regulations

• The existing Schedule M, incorporating GMP since 1988, lacked recent updates, leading to a necessity to revisit and revise the principles and concepts of GMP.

#### • Global Alignment

With the pharmaceutical industry evolving rapidly, there was a need to align GMP recommendations with global standards, especially those of the World Health Organization (WHO), to ensure the production of drugs meets globally acceptable quality standards.

# Quality Control Challenges

 Ensuring consistent and high-quality pharmaceutical products requires comprehensive control of materials, methods, machines, processes, personnel, and facilities, posing challenges under the existing regulations.

#### Significance

# • Adherence to Global Standards

• The revision aligns GMP with global standards, promoting India's pharmaceutical sector as a global benchmark for quality.

#### Introduction of Key Elements

- The revised Schedule M introduces elements such as a pharmaceutical quality system (PQS), quality risk management (QRM), product quality review (PQR), and qualification and validation of equipment.
- A computerized storage system for all drug products is introduced, enhancing efficiency and traceability.
- Patient Safety and Efficacy
  - Manufacturers are mandated to assume responsibility for pharmaceutical product quality, ensuring they are fit for intended use, comply with license requirements, and do not compromise patient safety, quality, or efficacy.

## **Good Manufacturing Practices (GMP)**

- GMP is a system for ensuring that products are consistently produced and controlled according to quality standards. It is designed to minimize the risks involved in any pharmaceutical production that cannot be eliminated through testing the final product.
- The Main Risks:
  - Unexpected contamination of products
  - Causing damage to health or even death
  - Incorrect labels on containers, which could mean that patients receive the wrong medicine
  - Insufficient or too much active ingredient, resulting in ineffective treatment or adverse effects.
- WHO (World Health Organization) has established detailed guidelines for GMP. Many countries have formulated their own requirements for GMP based on WHO GMP. The GMP system was first incorporated in India in 1988 in Schedule M of the Drugs and Cosmetics Rules, 1945, and the last amendment was done in June 2005. WHO-GMP standards are now part of the revised Schedule M.

#### 12. No local body members in J&K from 9 Jan

#### Context:

The five-year term of local representatives in Jammu and Kashmir is ending, leaving the region without grassroots electoral representation since 2018.

#### Issues:

- The imminent end of the five-year term for nearly 30,000 local representatives in Jammu and Kashmir, resulting in a lack of grassroots electoral representation since 2018.
- Uncertainty surrounding the timing of future municipal and panchayat elections due to the Union government's decision to conduct a delimitation exercise.
- Concerns raised about the absence of elected representatives, the cessation of funds, and the impact on governance in remote areas.
- Issues of equitable fund distribution based on population figures and the broader political implications since the abrogation of Article 370 in August 2019.

#### Significance:

- Last panchayat elections were held in late 2018, with 27,281 panches and sarpanches elected, and their terms expiring on January 10, 2019.
- Union Home Minister Amit Shah has indicated that a decision regarding the reinstatement of Jammu and Kashmir's Statehood will be made after Assembly elections.
- On December 11, the Supreme Court instructed the Election Commission to conduct these elections by September 30, 2024.
- The ongoing delimitation exercise, initiated on December 28, 2023, adds complexity to scheduling elections, with the Election Commission expected to conduct Assembly elections by September 30, 2024. Timely election is a crucial part given the situation and need of the region.

#### 13. Panspermia: Life from one world to the next

**Context:** The concept of panspermia, tracing its roots back to ancient Greece, has sparked ongoing debates and inquiries into the origins of life.

#### Panspermia:

- Panspermia, a concept tracing back to ancient Greece, posits that life may have originated on one planet and travelled as 'seeds' to another.
- Coined by philosopher Anaxagoras, the idea gained traction in modern times as scientific advancements showcased the resilience of microorganisms in space conditions.
- Studies demonstrated the potential for life to endure ejection from a planet, navigate interplanetary travel, and survive upon reaching a new world.
- Despite its intriguing premise, panspermia remains a fringe theory in the scientific community, lacking empirical evidence.



Critics argue it doesn't provide a clear explanation for life's origin. Controversies, like speculations
around the interstellar object 'Oumuamua, further contribute to the debate.

#### 14. Article 30

**Context:** Chief Justice of India D.Y. Chandrachud leads a seven-judge Bench, offering crucial observations on the minority status of educational institutions. Article 30 of the Indian Constitution pertains to the Right of Minorities to Establish and Administer Educational Institutions. It ensures that all religious and linguistic minorities have the right to establish and administer educational institutions of their choice.

#### Issue:

- The Bench declares that a mere regulation of an institution by a statute does not strip it of its minority status.
- Emphasis on the point that adherence to regulations does not undermine the institution's right to maintain its minority identity.
- Article 30, addressing the right of minorities to establish and administer educational institutions, was clarified by the court.
- Administration need not be exclusively by members of a minority community; it can be secular, welcoming students from any community.
- The case revolves around the minority status of the Aligarh Muslim University.
- Senior advocate Rajeev Dhavan underscores the essential role of private and minority institutions in the Indian education landscape. Dhavan points out that standards of examination and curricula are regulated by the State for all universities, including private and minority institutions.

#### **Questions Before the Constitution Bench:**

- The court considers a reference on defining criteria for an institution to be recognized as a minority educational institution.
- Can an institution be deemed minority if it's "established by a person(s) belonging to a religious or linguistic minority or its being administered by a person(s) belonging to a religious or linguistic minority"?

#### 15. Bhutan's elections

**Context:** Former Prime Minister Tshering Tobgay's People's Democratic Party (PDP) secures victory in Bhutan's elections, according to media reports.

Economic challenges take centre stage in the polls, overshadowing the country's commitment to "Gross National Happiness" as a priority over growth.

#### Issue:

- The election unfolded against the backdrop of economic threats that resonate with the kingdom's younger generation.
- Chronic youth unemployment, coupled with a notable brain drain, became central concerns for voters.
- Both political parties participating in the election are aligned with the constitutionally enshrined philosophy of governance, measuring success by the "happiness and well-being of the people."
- The economic struggles faced by Bhutan are significant factors influencing the electorate. The nation grapples with a youth unemployment rate of 29 percent, as reported by the World Bank, while economic growth has been modest, averaging 1.7 percent over the past five years.

#### 16. Hermes-900/Drishti-10 Starliner UAV

**Introduction:** The Drishti 10 Starliner Unmanned Aerial Vehicle (UAV), an indigenously developed UAV for the Indian Navy, manufactured by Adani Defence and Aerospace.

#### About Drishti 10 Starliner UAV:

- It is a domestically developed unmanned aerial vehicle (UAV) based on the Elbits Hermes 900 MALE (Medium Altitude Long Range) platform.
- It is an Intelligence, Surveillance, and Reconnaissance (ISR) platform with multi-payload capabilities and persistent wide-area surveillance features.
- The UAV has an impressive 36-hour endurance and a payload capacity of 450 kg.
- It is authorized for flights in both segregated and unsegregated airspace.
- Drishti 10 Starliner is the sole all-weather military platform with STANAG 4671 certification.
- The UAV has high autonomy and mission effectiveness.
- Its development has contributed to establishing a comprehensive value chain, promoting highlevel indigenisation.
- The UAV is certified to operate in civilian airspace.

#### 17. ILO's World Employment & Social Outlook Report

**Context:** The International Labour Organisation (ILO) released its World Employment and Social Outlook: Trends 2024 report, predicting a global increase in unemployment despite improvements in joblessness and the jobs gap.

#### Issue:

- The report highlighted concerns about rising social inequalities and stagnant productivity.
- In India, real wages were reported as "positive" compared to other G20 nations.
- The report noted a significant deterioration in the global macroeconomic environment in 2023, citing geopolitical tensions, inflation, and aggressive moves by central banks. This led to the fastest increase in interest rates since the 1980s, impacting global industrial activity, investment, and trade.
- Despite the economic slowdown, global growth in 2023 exceeded expectations, showing surprising resilience in labour markets.
- The report cautioned that structural imbalances in labour markets may be more concerning than cyclical factors.
- Real wages declined in most G20 countries, with an increase in workers living in extreme poverty globally.
- Falling living standards, weak productivity, and persistent inflation contributing to greater inequality are matters of concern.
- While informal job rates are expected to decline in 2024, concerns persist about the low quality of many jobs and the need for sustainable development and social justice

#### 18. Amaterasu cosmic ray

**Context:** In a groundbreaking revelation, Japanese scientist Toshihiro Fujii unveiled the discovery of an ultrahigh-energy cosmic ray named 'Amaterasu.'

**About:** Identified as the second-highest-energy cosmic ray ever found, Amaterasu's energy levels reach an unprecedented 240 exa-electron-volts (EeV).

This cosmic marvel challenges existing paradigms, offering a unique opportunity to delve into the mysteries of high-energy particle physics.

#### 19. Atal Setu

# B BYJU'S IAS

# Context:

The Mumbai Trans Harbour Link (MTHL), known as the Atal Bihari Vajpayee Sewri Nhava Sheva Atal Setu, is set to transform travel between Mumbai and Navi Mumbai.

#### About the project:

Inaugurated by Prime Minister Narendra Modi, the project costs ₹20,000 crore. It is India's longest sea bridge—spanning 22 km.

#### **20.Swachch Survekshan Awards**

Context: Recently, the results of the Swachh Survekshan Awards were declared.

# About:

- Surat in Gujarat and Indore in Madhya Pradesh secured the top positions as the cleanest cities in India at the 2023 Swachh Survekshan Awards by the Union Urban Affairs Ministry.
- Navi Mumbai claimed the third spot.
- Indore retained its cleanest city title for the seventh consecutive year. Maharashtra topped the state rankings, followed by Madhya Pradesh.
- The theme for the cleanliness survey was "Waste to wealth," emphasizing sustainable waste management.
- The awards also recognized Varanasi and Prayagraj as the cleanest Ganga towns, and Chandigarh won the award for the safest city for sanitation workers.
- The Swachh Survekshan initiative has grown significantly since its inception in 2016, covering 4,477 cities in 2023.

#### 21. Black Sea mine clearance initiative

**Context:** Turkey, Romania, and Bulgaria have officially signed an agreement in Istanbul to jointly address the issue of floating mines in the Black Sea resulting from the conflict in Ukraine.

**About the initiative:** The Black Sea Mine Clearance Initiative is a collaborative effort among NATO member countries, particularly Turkey, Romania, and Bulgaria, aimed at addressing the threat posed by floating mines in the Black Sea. This initiative was established in response to the mining of Ukraine's Black Sea coastline during Russia's invasion of Ukraine nearly two years ago. The agreement involves a joint plan to clear these mines and enhance safety in the Black Sea. The initiative includes deploying minehunting ships and a command control ship, with coordination led by naval commanders from the participating countries.

# 22.UK's Civil Nuclear Roadmap

**Context:** The UK government has revealed a comprehensive roadmap for a significant expansion of nuclear power, marking the country's most extensive effort in 70 years. The initiative aims to bolster energy independence and achieve carbon emission targets.

#### Issue:

- Outlined in the Civil Nuclear Roadmap are plans to explore the construction of a major new power station.
- Additionally, a substantial £300 million (\$382 million) investment is earmarked for the production of advanced uranium fuel.
- The proposed measures, collectively, envision a fourfold increase in the UK's nuclear power capacity to 24 gigawatts by 2050.
- Despite facing criticism for issuing new oil and gas licenses in the North Sea, the government asserts its commitment to the 2050 net-zero target.

 Prime Minister Rishi Sunak underscores nuclear power as the antidote to Britain's energy challenges, while Energy Minister Claire Coutinho emphasizes the plans' role in ensuring the UK is not held hostage to energy geopolitics.

#### 23.Focus on best practices as global meet on pulses returns to India

**Context:** The Global Pulse Convention, jointly organized by the National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) and the Global Pulse Confederation (GPC), is set to convene in India in February 2024.

• With about 800 representatives from governments, commercial entities, and non-profit organizations involved in pulse production and processing, the conference aims to facilitate the exchange of knowledge and experiences among experts, stakeholders, and policymakers.

#### Issues

#### Balancing Domestic Interests

- The challenge of maintaining a balance between the interests of domestic farmers and consumers.
- Addressing weather variations to keep pulse prices reasonably low.

#### Increasing Pulse Production

- Acknowledgement of India's increased pulse production, with a focus on sustaining growth.
- The need for effective strategies to manage the delicate balance in the interest of both farmers and consumers.

# • Smart Crops Message

- Emphasis on pulses as smart crops contributing to sustainable food systems.
- Recognition of pulses as key players in ensuring food security and nutrition in India.

#### **India's Pulses Production**

- India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world.
- Pulses account for around 20% of the area under foodgrains and contribute around 7-10% of the total foodgrains production in the country.
- Though pulses are grown in both Kharif and Rabi seasons, Rabi pulses contribute more than 60% of the total production.
- Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh and Karnataka are the top five pulsesproducing states.

#### **ICAR's Role in Research and Variety Development**

- The Indian Council of Agricultural Research (ICAR) plays a pivotal role in enhancing the productivity potential of pulse crops through research and development efforts. The ICAR focuses on:
  - Basic and strategic research on pulses.
  - Collaborative applied research with State Agricultural Universities.
  - Development of location-specific high-yielding varieties and production packages.
  - During the period from 2014 to 2023, an impressive 343 high-yielding varieties and hybrids of pulses have been officially recognized for commercial cultivation across the country.

# 24.At 25.37 lakh, India achieved record TB notifications in 2023

**Context:** In 2023, India achieved a record in Tuberculosis (TB) notifications, with 25,37,235 cases reported, surpassing the 2022 numbers. The public sector notified 16,99,119 cases, reaching 93% of the target, while the private sector reported 8,38,116 cases, achieving 89% of its target.

#### Issues

#### • Private Sector Underperformance

- Despite progress, the private sector's TB notifications remain below National Strategic Plan (NSP) targets.
- In 2023, private sector notifications reached 33%, falling short of the NSP's 56% target.

#### Historical Trends

- TB notifications faced a significant decline in 2020 and 2021 due to the pandemic.
- The private sector's share has been gradually increasing but is still below the set targets.

#### Missed Cases

- With 50-70% of TB patients seeking care in the private sector, the percentage of annual notifications is small.
- Tens of thousands of TB cases are likely missed each year, as per NSP estimates.

#### Record Total Notifications

- 2023 marks a milestone with a record total of TB notifications, surpassing the achievements of 2022.
- Public sector notifications reached 93% of the target, reflecting improved surveillance efforts.

# • Private Sector's Role

- The private sector's increasing share is significant, given its role in TB patient care.
- The private sector is a crucial player in capturing missed cases and improving overall TB surveillance.

#### National Strategic Plan for TB Elimination

- Complete detection of TB cases by 2020 followed by 100% elimination of TB by 2025.
- The Conditional Access Program (CAP) has introduced an Anti-TB Drug named Bedaqualine.
- Under the Make in India program, the development of a first-line anti-TB drug was proposed in the public sector.
- A corpus fund for TB to be maintained under the Bharat Kshay Niyantran Pratishthan (BKNP) which is also known as the India TB Control Foundation, is one of the visions of this NSP.
- It aims to create synergy through a shift from a regulatory approach to a partnership approach to streamline the services in the largely unorganized and unregulated private sector.
- Technological implementation by creating a user-friendly online platform E-Nikshay to let doctors notify the cases as soon as they come across the infected patient.
- Media campaigns are planned under this program to promote TB Preventive measures. Swasth E- Gurukul is one such initiative of the World Health Organization.

#### 25.Global shipping in a spot as Panama Canal short of water

**Context:** The global shipping industry faces additional challenges as the Panama Canal grapples with a severe shortage of water. The Red Sea crisis, coupled with the canal's water scarcity, is causing disruptions, leading major shipping companies like Maersk to bypass the canal and utilize alternative routes.

#### Issues

#### • Increased Waiting Times

- Queue of 47 ships waiting to cross the Panama Canal.
- $\circ$   $\,$  Waiting time for north-bound ships doubled to 10 days in the past month.

#### • Red Sea Crisis Impact

 Red Sea crisis caused by the attack on container ships by Yemen-backed Houthi militants in December '23.

• Ships are being diverted via the Cape of Good Hope, impacting the Panama Canal's traffic.

#### Water Scarcity

- $\circ$   $\,$  Prolonged drought affecting water levels in Gatun Lake, a key component of the canal's locks.
- $\,\circ\,\,$  Reductions in the weight and number of vessels passing through due to low water levels.

#### • Operational Changes by Maersk

- Maersk bypassing the Panama Canal and using a 'land bridge' with rail services for cargo transport.
- Creation of separate loops for Atlantic and Pacific vessels, altering shipping dynamics.

#### Global Shipping Impact

- Panama Canal is crucial for international maritime trade, connecting 2,000 ports in 170 countries.
- Over 14,000 transits completed in 2022, carrying more than 291 million long tons of cargo.

#### 26.Army adopts Topa Pir as model village after civilian deaths

**Context:** The recent adoption of Topa Pir village by the Indian Army under the Sadbhavana scheme marks a significant development in its approach towards engaging with the local populace in the Pir Panjal valley, a region that has become a new battleground in the complex landscape of Jammu and Kashmir.

• This initiative follows the tragic incident where three civilians allegedly died from torture in Army custody, leading to widespread criticism and a dent in goodwill among the Gujjars and Bakarwals inhabiting areas close to the Line of Control (LoC) in the region.

#### Issues

- Alleged Civilian Deaths: The adoption of Topa Pir as a model village comes in the aftermath of a disturbing incident where three civilians lost their lives under alleged torture in Army custody, creating a tense environment in the Pir Panjal valley.
- **Impact on Relations:** The incident has adversely affected the Army's relationship with the local population, particularly the Gujjars and Bakarwals. The viral video of the alleged torture and the subsequent deaths have fueled resentment and eroded the goodwill that existed.
- Security Challenges: The Pir Panjal valley has emerged as a new battleground in Jammu and Kashmir, adding complexity to the security situation. The need to balance security concerns with community engagement becomes paramount.

#### **Operation Sadbhavana**

- As part of 'Operation SADBHAVANA', Indian Army is undertaking multiple welfare activities such as Army Goodwill Schools, Infra-development projects, education tours etc. for the children living in remote areas of UT of Ladakh.
- The Indian Army is presently running 7 Army Goodwill Schools under 'Operation SADBHAVANA' in Ladakh Region. More than 2,200 Students are currently studying in these schools.
- Under this initiative (in FY 22-23), medical camps, veterinary camps, provision of medical equipment, upgradation of medical infrastructure and staffing of Medical Aid Centres have been provided at various remote locations in Ladakh. Women in remote areas of Ladakh are also being inducted in Vocational Training Centres, Women Empowerment Centres and Computer Centres organised and funded through SADBHAVNA.
- Operation SADBHAVANA (Goodwill) is a unique humane initiative undertaken by Indian Army and formalised in 1990s in the erstwhile State of J&K to address aspirations of people affected by scrooge of terrorism.

#### 27. Luxembourg overtakes Mauritius as India's third-largest FPI region; France enters the top 10

**Context**: Recent data reveals a significant shift in the hierarchy of foreign portfolio investors (FPI) contributing to India's economic landscape.

• Luxembourg has surpassed Mauritius to secure the third position in terms of assets under custody (AUC), while France has entered the top 10 club.

# **Details:**

- **Mauritius' Dip in Investments:** Mauritius experienced a 9% decline in investments to ₹3.9-lakh crore due to increased regulatory oversight. The renegotiated tax treaty with India, making capital gains on the sale of shares fully taxable after April 1, 2019, contributed to this decline.
- Luxembourg's Ascendancy: Luxembourg's AUC surged by 30% to ₹4.85-lakh crore, making it the third-largest FPI region. The rise is attributed to strengthened trade relations between Europe and India, marked by three financial agreements since 2020. Luxembourg's regulatory stability is cited as a factor, providing it with an advantageous position compared to traditional tax havens.
- France's Resurgence: France entered the top 10 FPI contributors with a noteworthy 74% growth in AUC, amounting to ₹1.88-lakh crore. Geopolitical events like Brexit and favorable tax treatment on FPI investments played a pivotal role in France's resurgence.
- **Canada's Position:** Canada, despite experiencing a 19% year-on-year growth in AUC, slipped one place in the ranking. The potential impact of the diplomatic row between India and Canada on investments remains uncertain.

#### 28. Rising Sea level erodes vibrancy of Ganga Sagar Mela

**Context:** Rising sea levels and beach erosion pose a threat to the Ganga Sagar Mela on Sagar Island. This is a concern for plans to give it a status of national fair.

#### Issue:

- A kilometer of beach near Kapil Muni temple is covered with mud, impacting the annual pilgrimage.
- It is difficult to combat natural forces.
- There is a Growing concern over the erosion's environmental and economic implications.
- Erosion comes as an embarrassment as the state seeks national fair status.
- Violations of Coastal Regulation Zone and human interventions cited as contributing factors.

# Initiatives:

- The West Bengal government allocates ₹25 crore for dredging, addressing erosion issues.
- Chief Minister Mamata Banerjee appeals to Prime Minister Modi for national fair status.
- Tetrapods, wave-dissipating concrete blocks, installed to counter beach erosion. Effectiveness is to be assessed after the monsoon season.

#### 29.Rashtriya Vigyaan Puraskar

**Context:** The government has invited nominations for the inaugural 'Rashtriya Vigyan Puraskar,' the national science awards, acknowledging accomplishments in diverse realms of science, technology, and technology-led innovation.

#### About the Award:

- The award was Instituted last year.
- These awards come in four categories and were introduced after discontinuing more than 300 awards from various institutions.
- The accolades include a medal and citation.
- There is no monetary prize.
- The scheduled date for the announcement of winners is May 11, National Technology Day.
- The awards ceremony is planned for August 23, National Space Day, commemorating the Chandrayaan-3 mission's moon landing.

# **30.PM JANMAN**

**Context:** Prime Minister Narendra Modi is set to initiate the allocation of ₹540 crore, marking the first installment of funding for durable homes under the Pradhan Mantri Awas Yojana-Gramin (PMAY-G).

# About:

- This dedicated financial support is aimed at benefiting one lakh families from the Particularly Vulnerable Tribal Group (PVTG).
- The release of funds is part of the recently launched PM-JANMAN(Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan) package, focusing on the overall development of PVTG habitations.

#### 31. ICMR starts revising current National Essential Diagnostics List for first time

**Context:** The Indian Council of Medical Research (ICMR) has taken a significant step in advancing healthcare by initiating the revision of the National Essential Diagnostics List (NEDL), first introduced in 2019.

# About:

- The NEDL is pivotal, specifying fundamental diagnostic tests essential at various healthcare tiers.
- Aligned with World Health Organization recommendations, ICMR introduced India's inaugural NEDL in 2019, elevating diagnostics as a cornerstone of the healthcare system.
- Essential tests, selected based on disease burden and public health impact, must align with infrastructure and manpower availability.
- This revision aims to incorporate contemporary diagnostic tests crucial for diverse healthcare facilities across India.
- ICMR has called upon relevant stakeholders to actively contribute their insights and suggestions for updating the NEDL.

**Significance:** ICMR's commitment to updating the NEDL reflects India's dedication to enhancing healthcare efficacy, aligning diagnostic practices with emerging health challenges, and ultimately ensuring better health outcomes for its citizens.

32.What are light-emitting diodes and why are they prized as light sources?

**Context:** In 2014, the Royal Swedish Academy of Sciences made a profound declaration, stating that "the 21st century will be lit by LED lamps." This proclamation accompanied the Nobel Prize in Physics awarded for groundbreaking achievements that paved the way for light-emitting diodes (LEDs) to supersede traditional lighting sources.

#### What are Diodes?

Diodes, fundamental electronic components, serve as the building blocks for LEDs. With an anode and a cathode, diodes enable the unidirectional flow of electric current through a p-n junction, where p-type (electron-deficient) and n-type (electron-rich) materials meet.

#### Advantages of LEDs:

- Haitz's Law, akin to Moore's Law in the realm of transistors, predicts consistent enhancements in LED efficiency.
- LEDs outshine traditional incandescent bulbs and fluorescent lamps in terms of energy efficiency, durability, and cost-effectiveness.
- Their applications span a wide array of sectors, from consumer electronics to agriculture.

• The versatility of LEDs extends beyond conventional applications, with developments in embedded LEDs, organic LEDs, and expanded colour-emitting capabilities, showcasing the evolutionary trajectory of this revolutionary lighting technology.

### 33.India's KABIL acquires five lithium blocks in Argentina

**Context:** India has made significant strides in securing its lithium resources by acquiring five lithium blocks in Argentina.

### Issue:

- Khanij Bidesh India Ltd. (KABIL), a subsidiary under the Ministry of Mines, entered into an agreement with Argentina's state-owned Catamarca Minera Y Energetica-Sociedad Del Estado (CAMYEN) for exploration and exclusivity rights.
- The lithium brine blocks, covering approximately 15,703 hectares, include Cortadera-I, Cortadera-VII, Cortadera-VII, Cateo-2022-01810132, and Cortadera-VI.
- KABIL, set to establish a branch office in Catamarca, is poised to invest around ₹200 crore over five years for development and exploration.

### 34.Moreh town

**Context:** In Manipur's Moreh town, recent armed confrontations between police and suspected miscreants, notably linked to the Kuki-Zo community, have heightened security concerns.

### Issue:

- The Kuki-Zo community's demand for the State police's removal, citing representation imbalances, adds complexity.
- Moreh, crucial for cross-border trade with Myanmar, faces recurring security challenges.
- Moreh town is strategically situated along the Myanmar border in the northeastern state of Manipur, serving as a critical point for cross-border trade and interactions. Its proximity to the international border contributes to its significance in regional dynamics.
- As tensions rise, local communities seek justice, emphasizing the intricate ethnic dynamics in northeastern India's border regions.

**Significance:** The situation in Moreh underscores the complex security landscape in certain border regions and the delicate interplay of ethnic and community dynamics in the northeastern states of India.

### 35.ISRO's distress alert transmitter

**Context:** ISRO upgrades the distress alert system for fishermen at sea with the second-generation Distress Alert Transmitter (DAT-SG), offering advanced features, two-way communication, and improved safety measures for maritime emergencies.

### **Background and Current Usage:**

- The original DAT (operational since 2010) facilitated distress messages via communication satellites to the Indian Mission Control Centre.
- Over 20,000 DATs are currently deployed for distress communication from fishing boats.

### Technological Advancements in DAT-SG:

- ISRO introduces the second generation, DAT-SG, incorporating advanced capabilities.
- Features include acknowledgement signals for distress alerts, two-way communication with control centres, and transmission of advance alerts for adverse weather or emergencies.

### **Improved Safety Measures:**

 DAT-SG empowers fishermen with timely information on potential fishing zones, enhancing their decision-making for a safer maritime experience.

### **36.**Panel on sub-categorisation of SCs

### Context:

- The Union government established a five-member committee, chaired by the Cabinet Secretary, to address the uneven distribution of benefits among over 1,200 Scheduled Castes (SCs) in India.
- **Objective:** Evaluate and devise methods for fair allocation of schemes and initiatives, particularly focusing on the most backward SC communities.

### Background and Madiga Community's Demand:

- PM Narendra Modi's commitment to explore the sub-categorisation of SCs gains significance, responding to demands raised by the Madiga community during the Telangana Assembly election.
- The Madiga community has sought sub-categorisation since 1994, prompting the formation of commissions in 1996 and 2007, both concluding that possibilities exist for sub-categorisation.

### Supreme Court's Involvement:

- **Current Scenario:** A seven-judge Constitution Bench of the Supreme Court is set to examine the constitutionality of sub-categorisation among SCs and STs, specifically concerning reservations in jobs and education.
- **Government Approach:** The committee, while respecting the court's jurisdiction on reservations, will explore alternative means to address grievances, such as special initiatives and targeted schemes.

### Legal Perspective and Caste Census Requirement:

- Legal Consideration: While the Constitution does not explicitly prohibit Parliament from subcategorising SCs or STs, legal experts emphasize the need for a comprehensive caste census and socio-economic data for justification.
- Argument: Supreme Court advocate Mohan Gopal contends that a 100% count of all castes is essential to establish the empirical basis for sub-categorisation and determine the additional share of benefits for each community.

### 37. NATO's Defence Spending Guideline

**Context:** Japan bought 400 Tomahawk missiles from the U.S., reinforcing defence against China and North Korea, aiming to double military spending.

### About news:

- Japan entered into an agreement with the United States to purchase 400 long-range Tomahawk missiles.
- The decision to acquire these missiles reflects Japan's efforts to enhance its military capabilities in response to the increasing military strength of China and the nuclear threat posed by North Korea.
- Japan aims to double its defence spending by 2027, reaching the NATO standard of allocating 2% of its GDP towards defence.
- The procurement of the Tomahawk missiles is part of Japan's broader strategy to bolster its national security and contribute to regional stability.
- This deal underscores Japan's commitment to fortifying its defence capabilities amid geopolitical challenges in the Asia-Pacific region.

### 38.US hits Yemen's Houthis

**Context:** The United States conducted additional strikes to thwart Houthi anti-ship missiles prepared for launch into the Red Sea. White House spokesperson John Kirby confirmed the targeting of 14 missiles in response to the Houthi designation as a "terrorist" entity.

### Houthi Attacks in Response to Designation:

- In the aftermath of the terrorist designation, the Houthis targeted a U.S.-owned cargo carrier.
- The rebels declared their intention to continue attacks, citing support for Palestinians in Gaza.

### U.S. Designation of Houthis as Terrorists:

- Secretary of State Antony Blinken announced the re-designation of the Houthis as a Specially Designated Global Terrorist group, effective in 30 days.
- During the implementation delay, the U.S. plans robust outreach for humanitarian assistance and critical commodity imports to Yemen.

### Implications and Conditions for Re-evaluation:

- Acknowledging ongoing attacks, President Joe Biden stated that the bombardment hadn't halted Houthi assaults on vessels in the Red Sea.
- National Security Adviser Jake Sullivan emphasised the designation's role in impeding terrorist funding to the Houthis and restricting their financial market access.
- Sullivan indicated that a re-evaluation of the terrorist designation would occur if the Houthis cease attacks in the Red Sea and Gulf of Aden, highlighting a conditional approach.

### **39.Second Thomas Shoal**

**Context:** China and the Philippines agreed to ease tensions in the South China Sea, focusing on Ren'Ai Reef (Ayungin Shoal), following confrontations, including an alleged incident in November 2023.

### **Agreement to Ease Tensions:**

- China and the Philippines have announced their commitment to reducing tensions in the South China Sea after a year marked by public confrontations between their naval vessels.
- The agreement emphasizes the importance of improving communication and utilizing friendly negotiations to manage differences, particularly focusing on the situation at Ren'Ai Reef.

### Specific Focus on Ren'Ai Reef (Ayungin Shoal/Second Thomas Shoal):

- Ren'Ai Reef, known as Ayungin Shoal in the Philippines and Second Thomas Shoal in the U.S., has been a hotspot for tensions between Chinese and Philippine ships.
- The site has witnessed multiple confrontations, with the latest incident in November involving alleged dangerous manoeuvres by a Chinese coast guard ship towards a Philippine supply ship, which was reportedly hit with a water cannon.

### **Ongoing Diplomatic Efforts:**

- Both nations expressed their commitment to ongoing diplomatic efforts by agreeing to limit tensions in the South China Sea.
- The recent meeting in Shanghai marked the eighth in a series that commenced in 2017, highlighting a sustained diplomatic engagement aimed at managing disputes and preventing armed confrontations in the region.

### 40.Andhra becomes 2nd state to take up 'caste census'

**Context:** A special phone app has been designed by the government to conduct the census. Andhra Pradesh has become the second state in the country, after Bihar, to launch such a caste census. More than 700 caste groups are available on the mobile application for the public to choose theirs. The 'No caste' option has also been provided.

### Significance

- Such data will ensure that no intended beneficiary for the "Navaratnalu" (nine welfare schemes of the Andhra Pradesh government) is left out.
- Assist in adjusting existing policies and devising new policies for education and employment as needed.
- Help the government understand how they sustain themselves, their livelihoods, and how they can be better supported.
- To gain a comprehensive understanding of population dynamics, especially in regions with dominant BC groups, to address issues faced by the most marginalised populations.
- Aid in studying the below poverty line (BPL) population among BCs, SCs, STs, minorities, and other communities.

### **Background of Census**

- Census in India 1881.
- The Socio-Economic and Caste Census (SECC) 1931 With the primary objective of gathering data on the economic status of Indian families in both rural and urban areas.
- Census offers a broad overview of the Indian population, and SECC serves the purpose of identifying recipients eligible for state support.
- Implementation of a caste census Article 340 There is a mandate to appoint a commission to examine the conditions of socially and educationally backward classes and provide recommendations regarding the measures that governments should take.

### 41. NASA spacecraft pings Chandrayaan 3 lander on the moon

### About

- A NASA spacecraft has successfully pinged India's Chandrayaan-3 lander on the moon.
- According to NASA, a laser beam was transmitted and reflected between its Lunar Reconnaissance Orbiter (LRO) and the Vikram lander for the first time on the lunar surface.
- This successful experiment opens the door to a new style of precisely locating targets on the moon's surface.

### Retroreflectors

- Small arrays of mirrors sending laser pulses toward an object and measuring how long it takes the light to bounce back is a commonly used way to track the locations of Earth-orbiting satellites from the ground.
- LASER Retroreflector Array (LRA) on board Chandrayaan 3 NASA's LRA was accommodated on the Vikram lander under international collaboration. It comprises eight corner-cube retroreflectors on a hemispherical support structure.

### 42. Think Tank warns WhatsApp users of scams and data breach

**Context:** The Bureau of Police Research and Development (BPRD) has warned users of different scams perpetrated through messaging platform WhatsApp. The police think tank under the Union Ministry of Home Affairs while listing "do's and don'ts" – the social media intermediary has been informed about the "data-breach acts" and numerous government bodies and Ministry officials are already working on it.



### **Details:**

- India is one of the largest markets of WhatsApp with more than 400 million users.
- Screen Sharing Feature: One of the vulnerabilities flagged by BPRD relates to the "screen share" feature introduced by the platform recently.
- It said that scammers impersonate officials from banks, financial institutions, government bodies, etc. On successfully convincing the victim to share the screen, the scammers surreptitiously install malicious Apps/software to get their sensitive information like bank details, and passwords and even access their banking services.
- Scammers on WhatsApp are quite active in committing fraud.
- Such acts may commence with missed calls on WhatsApp, messages offering jobs or business opportunities, or a video call/weblink to follow.
- All such acts aim to menace the victim and lead them to severe situations, costing them huge amounts of money.

### Bureau of Police Research and Development (BPR&D)

- Established in 1970, BPR&D replaced the Police Research Advisory Council, formed in 1966.
- Objective To identify the needs and requirements of the police force in the country, undertake research projects, and offer recommendations to address the challenges encountered by the police.
- Operating under the Ministry of Home Affairs, the government's focus is on creating a modern, effective, and responsive security architecture that fosters a sense of safety across all segments of society.
- Initially, the Bureau commenced operations with two divisions: the Research, Publication & Statistics Division and the Development Division.

### **Objectives of Bureau of Police Research and Development (BPR&D)**

- Examines the underlying reasons for criminal activities, preventive measures, and strategies to enhance investigation techniques, administrative structures, and juvenile delinquency.
- Platform for engagement with various stakeholders in policing and correctional administration.
- The collaborative insights from practitioners, academia, and civil society contribute to policy considerations in the realms of policing and prisons.
- Extends support through police research programs at the state level.
- Conducts regular evaluations of the equipment utilized by Indian police forces, ensuring the provision of new and upgraded tools in areas such as arms and ammunition.

### 43. How do you plan to save the Great Indian Bustard, SC asks govt.

### **Great Indian Bustard**

- State bird of Rajasthan.
- Scientific name: Ardeotis nigriceps.
- Recognized as the flagship species for grassland ecosystems, it serves as an indicator of the overall health of these habitats.
- Habitat: Rajasthan and Gujarat, with smaller populations found in Maharashtra, Karnataka, and Andhra Pradesh.
- IUCN Status: Critically Endangered
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I
- Convention on Migratory Species (CMS): Appendix I
- Wildlife (Protection) Act, 1972: Schedule I

### 42.NISAR Mission on track for a launch soon: NASA official

**Context:** The upcoming NASA-ISRO Synthetic Aperture Radar (NISAR) Mission represents a milestone in Earth observation, poised for an early 2024 launch.

NISAR's unique features, including its open science and open data policy, set it apart as a transformative force in monitoring natural processes and ecosystem changes.

### About:

- Designed for low-Earth orbit observation, NISAR employs synthetic aperture radar to scan Earth's land and ice-covered regions every 12 days, providing a reliable stream of high-resolution data.
- The mission's enormous volume of data, processed to validated data products, will be made openly available to the public.
- This transparency, coupled with its ability to offer consistent measurements, distinguishes NISAR from other synthetic aperture radar missions.

### 43. Mosquito fish, used to fight mosquitoes, has become invasive in India

### Context:

Recent efforts in Andhra Pradesh, Odisha, and Punjab to alleviate the mosquito menace through the introduction of mosquitofish, particularly Gambusia species, have sparked ecological concerns.

### About:

- Originally introduced in India during British rule in the 1920s, Gambusia was intended to control mosquito-borne diseases.
- However, these fish have become invasive, causing harm to native fauna and disrupting local ecosystems.
- Despite global recommendations against the use of Gambusia for mosquito control, Indian authorities persist in releasing them.
- This raises the imperative for a reevaluation of mosquito control strategies.

### 44. With no iron or steel, Ayodhya temple is a study in sandstone

### Context:

The Ayodhya temple, consecrated on 22 January 2024, stands as a sprawling sandstone structure, a testament to the collective wisdom and engineering prowess of some of the country's finest minds, according to authorities involved in its construction.

### **Details:**

- The grand temple, devoid of any iron or steel, utilized stones from the Bansi Paharpur region in Rajasthan.
- Elaborate carvings of Lord Hanuman, deities, peacocks, and floral patterns adorn these stones. The three-storey temple, constructed in the traditional Nagara style, spans 380 feet in length, 250 feet in width, and rises 161 feet high.
- Overcoming challenges during excavation, engineers devised an artificial foundation to support the superstructure.
- The temple complex includes a rectangular periphery called percota, a unique feature seen more commonly in South Indian temples.
- The periphery, 14 feet wide and stretching 732 meters, surrounds the temple. Additionally, the complex emphasizes green spaces, comprising about 70% of the area, featuring hundreds of trees and preserved ancient Shiva temples.
- Essential facilities like sewage and water treatment plants, a fire brigade post, and a dedicated electricity line contribute to the temple's comprehensive infrastructure.

### 45.Bharat Ratna for former Bihar CM Karpoori Thakur

**Context:** In a significant announcement a day prior to the birth centenary celebrations of former Bihar Chief Minister Karpoori Thakur, President Droupadi Murmu declared that Thakur would posthumously receive the Bharat Ratna, India's highest civilian award.

### About:

- Thakur, a socialist leader and fervent advocate for the marginalized, served as Bihar's Chief Minister twice, leaving an indelible mark on Indian politics.
- Born to a marginal farmer, Thakur's legacy is rooted in his dedication to social justice. During his 1977 Chief Ministership, the Mungeri Lal Commission recommended the reclassification of backward classes, a move later implemented in 1978, leading to a 26% reservation for them in Bihar government services.
- This precursor to the Mandal Commission's report significantly impacted the political landscape in the 1990s.
- Thakur's influence extended to contemporary politics, with Bihar Chief Minister Nitish Kumar utilizing the "Karpoori Thakur formula" to categorize Backward Classes.

### **46.**The pulsar and the neutron

**Context:** In 1967, amid geopolitical tensions and scientific advancements, astronomers at the University of Cambridge stumbled upon a cosmic marvel during the Nathu La and Cho La clashes between Indian and Chinese armies.

Using an array of antennae, they discovered the first pulsar, PSR B1919+21. This finding, linked to James Chadwick's 1932 discovery of neutrons, unveiled the enigmatic world of rotating neutron stars.

### About:

- The subsequent exploration of pulsars revealed a fascinating glitch in their rotational patterns, discovered in 1969, posing a mystery that persists to this day.
- During a glitch, the rotation briefly accelerates before returning to its original rate.
- Scientists, intrigued by this phenomenon, propose that vortices in the superfluid state within neutron stars cause these glitches.
- The intricate dance of vortices, known as pinning, occurs between the neutron star's solid crust and superfluid core.
- As the star loses energy through radiation, the pinned vortices are released, altering the rotation speed and manifesting as a glitch in pulsar data.

### 47. Prerana: An Experiential Learning Program

### Facts

- Launched by Ministry of Education
- Week-long residential program
- Eligibility Students of Class IX to XII from any recognised school
- Selection process: Sign up on the portal or Participate via 'Prerana Utsav' in school, 2 students from each district to be chosen

### Features

- Batch of 20 selected students to attend the program, every week
- Location: Vernacular School (Vadnagar, Gujarat)
- Curriculum prepared by IIT Gandhi Nagar

### Activities:

- Daily routine covers yoga, mindfulness, experiential learning, and interactive sessions.
- Evenings bring site visits, films, and talent shows for comprehensive education.
- Students engage in activities blending traditional wisdom, modern tech, and motivational insights

### 9 Themes

- Swabhiman and Vinay
- Shaurya and Sahas
- Parishram and Samarpan
- Karuna and Sewa
- Vividhta and Ekta
- Satyanishtha and Shuchita
- Navachar and Jigyasa
- Shraddha and Vishwas
- Swatantrata and Kartavya

### 48.Jal Jeevan Mission

**Context:** In just two years, the Jal Jeevan Mission has brought about a revolutionary change in rural India by providing tap water to 73% of households.

### About:

- Launched in 2019, the mission, guided by inclusivity and community participation, aligns with the UN's Sustainable Development Goal 6.
- Diverse challenges, from hilly terrains to water quality issues, are addressed through tailored solutions, showcasing adaptability. Beyond water provision, studies reveal a broader impact, reducing infant deaths and preventing under-five fatalities.
- The Jal Jeevan Mission actively involves communities, empowering women and engaging the youth. Notably, it generates substantial employment and ensures transparency through real-time monitoring.

### 49. Turkiye ratifies Sweden's NATO membership after protracted delay

**Context:** In a historic decision, Turkey's Parliament has ratified Sweden's NATO membership, marking the culmination of a year-long deliberation.

### About:

- The approval, with 287 votes in favour and 55 against, solidifies Sweden's path to becoming the 32nd member of the alliance.
- The delay in this process had raised concerns within Western diplomatic circles amid Russia's ongoing conflict with Ukraine.
- The positive response from Hungary and the United States underscores the significance of this diplomatic milestone in reinforcing alliance cohesion and security.

### 50.Centre releases three-drug regimen for treating leprosy

**Context**: India's health sector achieves a milestone in the battle against leprosy with the government's approval of an advanced treatment regimen, targeting the cessation of transmission at the subnational level by 2027.

### Issue:

- The Directorate General of Health Services emphasizes the National Leprosy Eradication Programme's robust measures.
- A pivotal shift involves adopting a three-drug regimen for Pauci-Bacillary cases, replacing the existing six-month, two-drug approach.
- States and Union Territories are urged to requisition updated drugs 12 months ahead. The new regimen for PB and MB cases will commence on April 1, 2025.

### 51. Rs. 8500-crore aid for coal gasification

**Context:** The Indian government, led by Prime Minister Narendra Modi, has sanctioned a substantial financial aid package of ₹8,500 crore to foster coal/lignite gasification projects.

**About:** This move, approved during a Cabinet meeting, underscores the administration's commitment to advancing initiatives in the energy sector. The allocation aims to bolster and promote projects related to the gasification of coal and lignite, aligning with the government's strategic focus on enhancing energy infrastructure and diversifying energy sources.

### **52.AMU's minority status**

**Context:** The ongoing legal dispute over the minority status of Aligarh Muslim University (AMU) has become a focal point of discussion, drawing attention to the interpretation of constitutional provisions and historical amendments. The case, currently under consideration by a seven-judge Bench of the Supreme Court, involves intricate arguments concerning the definition of 'minority character' and the implications of historical legislative amendments on the university's status.

### Understanding 'Minority Character'

- **Constitutional Framework:** Article 30(1) empowers religious and linguistic minorities to establish and administer educational institutions of their choice.
- Equality in Treatment: Article 30(2) ensures equality in granting aid to all educational institutions, regardless of minority status, with exemptions from SC, ST, and OBC reservations.
- **Definition of 'Minority':** The T.M.A Pai Foundation (2002) case clarified that minority status is determined by the demography of the concerned State, not the national population.

### **Background of the Legal Dispute**

- **Historical Foundation:** Sir Syed Ahmed Khan established the Muhammadan Anglo-Oriental College in 1877, addressing Muslim educational needs and preserving Islamic values.
- **AMU Act, 1920:** The AMU Act was enacted to incorporate the college into AMU, with subsequent amendments in 1951 and 1965.
- Legal Dispute Initiation (1967): The legal dispute began with the S. Azeez Basha versus Union of India (UOI) case, challenging amendments to the AMU Act. The Supreme Court upheld the amendments in 1967.
- **1981 Amendment:** Nationwide protests led to the 1981 amendment, affirming AMU's minority status.
- **2005 Reservation Controversy:** The Allahabad High Court struck down the reservation policy in 2005, leading to an appeal to the Supreme Court in 2006.
- **2016 UOI Withdrawal:** In 2016, the Union of India withdrew from the appeal, refusing to acknowledge AMU's minority status. The University is now pursuing the case independently.

### **Current Issues in the Supreme Court**

- **Criteria for Minority Status:** The Supreme Court is deliberating on the criteria for determining the minority status of an educational institution.
- Institution Established under a Statute: The court is assessing whether an institution established under a statute can enjoy minority status.
- Legal Arguments: The petitioners argue for AMU's entitlement to minority status, while the Union of India supports the S. Azeez Basha verdict.
- **T.M.A Pai Foundation Verdict:** Senior Advocate Rajeev Dhavan relies on the T.M.A Pai Foundation verdict to argue that statutory regulations or State aid do not negate an institution's minority character.
- **AMU's Historical Character:** Solicitor General Tushar Mehta contends that AMU surrendered its rights to the British government and assumed a secular character with the 1920 Act.
- **Precedent-Setting Judgment:** The judgment in this case will set a precedent affecting the rights and legal recognition of all minority institutions.

### Significance of the Case

- Impact on Minority Institutions: The case's outcome will have far-reaching implications for the legal status and rights of minority educational institutions across the country.
- **Preservation of Minority Character:** The case underscores the importance of preserving the minority character of institutions while navigating the complexities of historical amendments and legislative changes.

### 53. Myanmar's ethnic minority fighters seize port town

**Context:** Recent developments in Myanmar have witnessed the Arakan Army (AA), an ethnic minority armed group, claiming control over the port town of Pauktaw after intense clashes with junta troops. This escalation comes after a brief seizure of Pauktaw by the AA in November, leading to continuous bombardment by the junta. The situation raises concerns about the ongoing conflict, the impact on civilians, and the broader implications for Myanmar's political landscape.

### Pauktaw's Strategic Significance

- Strategic Location: Pauktaw's proximity to a crucial deepwater port in the capital of western Rakhine state enhances its strategic importance.
- **Economic Implications:** Control over the port town can influence economic activities, especially in terms of trade and connectivity.

### **Chronology of Events**

- Initial Seizure in November: AA fighters briefly seized Pauktaw in November, breaking a fragile ceasefire established post the military coup in 2021.
- Junta's Response: The junta retaliated by using artillery, naval bombardment, and gunfire from helicopters to regain control.
- **Continuous Clashes:** The clashes persisted for over two months, leading to significant destruction in Pauktaw.

### Humanitarian and Infrastructure Issues

- **Civilian Impact:** The conflict has likely resulted in civilian casualties and displacement, posing humanitarian challenges.
- Infrastructure Damage: New Google Earth images reveal extensive damage to the town, with the downtown area reduced to rubble and destruction of several buildings.
- Military Dynamics
- **AA's Control:** AA claims to have "completely controlled" Pauktaw, forcing junta troops to leave by boat.
- **Ongoing Resistance:** AA fighters set up checkpoints and continue to engage in clashes with military naval vessels, indicating the persistence of resistance.

### **National and International Ramifications**

- **Political Landscape:** The AA's control over Pauktaw has implications for the broader political landscape, signaling the resistance against the junta's rule.
- International Concerns: The situation in Myanmar continues to draw international attention, with concerns about human rights violations and the need for a peaceful resolution.

### Issues

- **Humanitarian Crisis:** The conflict raises concerns about the humanitarian crisis, including civilian casualties, displacement, and potential shortages of essential services.
- **Political Stability:** The ongoing clashes contribute to the instability in Myanmar, complicating efforts for political resolution.
- **Economic Disruptions:** Control over strategic locations like Pauktaw can disrupt economic activities and trade routes, impacting the nation's economic stability.

### Significance

- **Resistance Against Junta:** The AA's control signifies the resilience and resistance of ethnic minority groups against the junta's rule.
- **Strategic Implications:** The control of Pauktaw has broader implications for the strategic dynamics within Myanmar, affecting regional stability.

### 54. Vaibhav fellowship programme

**Context:** The article discusses the recently announced fellowship program called Vaibhav, aimed at fostering collaboration between scientists of Indian origin or ancestry and research laboratories in India. The initiative allows these researchers to spend up to three months annually for three years, building connections, initiating projects, and contributing to the Indian research ecosystem. While the program shares similarities with the VAJRA Faculty Scheme, the article emphasizes the need for clarity on India's objectives in focusing specifically on the Indian diaspora.

### Vaibhav and VAJRA: A Comparative Analysis

- Objective Alignment: Both Vaibhav and VAJRA aim to facilitate collaboration between international faculty and Indian research institutions.
- **Target Audience:** Vaibhav exclusively targets the Indian diaspora, while VAJRA is open to researchers of various nationalities.
- Engagement Duration: Vaibhav offers a three-year engagement period, whereas VAJRA was limited to one-year engagements.
- Administration: The Department of Science and Technology (DST) oversees both schemes.

### 'Brain Drain' and Challenges in Indian Research

- **Historical Context:** The issue of 'brain drain' has been a longstanding concern, with talented researchers seeking opportunities abroad.
- **Role of Short-Term Fellowships:** Short-term fellowships play a crucial role in attracting foreign faculty, exposing them to India's scientific potential, and highlighting challenges in the research landscape.
- **Triggering Policy Changes:** Exchange programs can reveal challenges such as insufficient funding for basic research, limited participation by private companies, and restrictions on academic freedom, potentially prompting policy adjustments.

### Role of the Indian Diaspora

- **Potential Benefits:** Leveraging the vast pool of skilled scientific manpower trained abroad, especially in American and European universities, can contribute to India's scientific growth.
- **Realistic Expectations:** While the engagement aims to encourage scientists of Indian origin to stay or return to India, realistic expectations must guide these initiatives.

### **Clarity on Objectives**

- **Need for Clarity:** The article highlights the importance of clarity regarding India's objectives in specifically targeting the Indian diaspora.
- Identification of Gains: Understanding what India hopes to gain from such engagements is crucial, considering the continued existence of the VAJRA scheme.

### Issues

- Effectiveness of VAJRA: Concerns have been raised over the effectiveness of the VAJRA scheme, prompting a need for a comprehensive evaluation.
- Ethno-Nationalist Restriction: The article questions whether the ethno-nationalist restriction in Vaibhav, focusing exclusively on Indian origin researchers, will yield the desired outcomes.

### 55.Gyanvapi case raises a challenge to Places of Worship Act, 1991

### **Details:**

- The 1991 Act provides a guarantee for the preservation of the religious character of places of public worship as they existed on August 15, 1947.
- In August 2023, the Anjuman, Gynavapi mosque's managers, had argued in the apex court that the demand for a "scientific investigation" by the Archaeological Survey of India (ASI) of the mosque premises was merely "salami tactics" and would defeat the spirit of the 1991 Act. But SC had allowed the ASI survey using "non-invasive technology". The Chief Justice had even orally remarked to the mosque committee during the hearings that what seemed frivolous to them may be faith to the Hindus. The survey has now reported that a grand temple pre-existed the Gyanvapi mosque.
- The Constitution Bench in the Ramjanmabhoomi verdict observed that the 1991 Act was an "affirmation" of the solemn duty of the state to preserve the equality of all faiths. The Act was a manifestation of an essential constitutional value. "A norm which has the status of being a Basic Feature of the Constitution," the 2019 judgment had noted.
- The five-judge Bench referred to how one of the parliamentarians, Malini Bhattacharya, had agreed with the cut-off date of August 15, 1947. "It is because on that date we are supposed to have emerged as a modern, democratic and sovereign State... From that date, we also distinguished ourselves as a state which has no official religion and which gives equal rights to all the different religious denominations".

### The Places of Worship Act, 1991

It was enacted to freeze the status of religious places of worship as they existed on August 15, 1947, and prohibits the conversion of any place of worship and ensures the maintenance of their religious character.

### Major Provisions of the Act:

- **Prohibition of Conversion (Section 3):** Prevents the conversion of a place of worship, whether in full or part, from one religious denomination to another or within the same denomination.
- **Maintenance of Religious Character (Section 4(1)):** Ensures that the religious identity of a place of worship remains the same as it was on August 15, 1947.
- Abatement of Pending Cases (Section 4(2)): Declares that any ongoing legal proceedings concerning the conversion of a place of worship's religious character before August 15, 1947, will be terminated, and no new cases can be initiated.
- Exceptions to the Act (Section 5): The Act does not apply to ancient and historical monuments, archaeological sites, and remains covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958. The Act does not extend to the specific place of worship known as Ram Janmabhoomi-Babri Masjid in Ayodhya, including any legal proceedings associated with it.

### 56.Western Equine Encephalitis outbreak in Argentina

**Context:** On December 20, 2023, the International Health Regulations National Focal Point (IHR NFP) in Argentina alerted the Pan American Health Organization/World Health Organization (PAHO/WHO) of a human case of Western Equine Encephalitis Virus (WEEV) infection.

### **Details:**

- The present outbreak also comes in the context of an ongoing outbreak in horses in Argentina and Uruguay. Multiple outbreaks and human cases of Western Equine Encephalitis have been reported in the past from the U.S. and Canada and over 3,000 cases of infection have been reported over these years.
- Western Equine Encephalitis is a mosquito-borne infection caused by the Western Equine Encephalitis Virus (WEEV), which belongs to the Togaviridae family of viruses. Passerine birds are thought to be the reservoir and equine species as intermediate hosts. The primary mode of transmission of the infection to humans is through mosquitoes which act as vectors for the virus.

Since December 2023, there have been 374 laboratory-confirmed cases of WEEV infections in animals in Argentina and Uruguay, and an additional 21 human cases in Argentina. In Argentina, there have been 1,258 cases of infections in animals in 15 provinces, with the province of Buenos Aires having the highest number of cases. In Uruguay, there have been 56 cases of Western Equine Encephalitis Virus in equines, with no reported human infections.

### 57. Britain, Italy, Finland pause funding for UN agency in Gaza

**Context:** Britain, Italy and Finland on January 27 became the latest countries to pause funding for the United Nations' refugee agency for Palestinians, the UNRWA, following allegations its staff were involved in the October 7 Hamas attacks on Israel.

### **Details:**

- Set up to help refugees of the 1948 war at Israel's founding, UNRWA provides education, health and aid services to Palestinians in Gaza, the West Bank, Jordan, Syria, and Lebanon. It helps about two-thirds of Gaza's 2.3 million population and has played a pivotal aid role during the current war.
- The United States, Australia and Canada had already paused funding to the aid agency after Israel said 12 UNRWA employees were involved in the cross-border attack. The agency has opened an investigation into several employees who severed ties with them.

### UN Relief and Works Agency (UNRWA)

- It is a United Nations agency established by the General Assembly in 1949. It supports the relief and human development of Palestinian refugees across its five fields of operation.
- Its services encompass education, health care, relief and social services, camp infrastructure and improvement, protection and microfinance.
- Its mission is to help Palestine refugees in Jordan, Lebanon, Syria, West Bank, including East Jerusalem and the Gaza Strip. It is funded almost entirely by voluntary contributions and financial support.
- Palestine refugees are defined as persons whose normal place of residence was Palestine during the period 1 June 1946 to 15 May 1948, and who lost both home and means of livelihood as a result of the 1948 conflict.

### 58.Burkina, Mali, Niger quit West African bloc

### Context:

The military regimes of Burkina Faso, Mali, and Niger have collectively announced their immediate withdrawal from the West African bloc ECOWAS.

### Issue:

- Citing sovereignty, the leaders of these Sahel nations emphasized their decision to leave the Economic Community of West African States without delay.
- Tensions have escalated between these regimes and ECOWAS since coups occurred in Niger last July, Burkina Faso in 2022, and Mali in 2020.
- Facing suspension and heavy sanctions from ECOWAS, the regimes have solidified their positions and formed an "Alliance of Sahel States" in recent months.
- The withdrawal coincides with concerns over the potential spread of conflicts to Gulf of Guinea states like Ghana, Togo, Benin, and Ivory Coast following France's decision to withdraw its military presence from the Sahel region.

### 59.What is Humboldt's enigma and what does it mean for India?

### Context:

Explorers and naturalists have long pondered the mysteries of biodiversity, seeking to unravel its concentration and distribution across landscapes. Alexander von Humboldt, a pioneering polymath, laid the groundwork for understanding biodiversity through his observations on climate, altitude, and species distribution, notably on South America's Chimborazo mountain.

### Issue:

- Modern biogeographers revisit Humboldt's insights, exploring the enigmatic relationship between biodiversity and geographical features.
- Humboldt's enigma posits that while tropical regions boast higher primary productivity, mountainous areas exhibit unexpected biodiversity, challenging conventional paradigms.
- Mountains, with their geological diversity and climatic variability, emerge as biodiversity hotspots. Geological heterogeneity fosters unique habitats and species diversification, shaping intricate ecosystems worldwide.
- The Eastern Himalaya stands as a testament to Humboldt's enigma, defying conventional biodiversity patterns due to climate dissimilarity, geological heterogeneity, and evolutionary dynamics.

**Significance:** Addressing knowledge gaps in biodiversity requires intensified research efforts and modern methodologies, including genetic studies. National missions like the National Mission on Himalayan Studies and Biodiversity and Human Wellbeing strive to foster scientific inquiry and unravel the complexities of biodiversity. Humboldt's legacy inspires us to embrace exploration and unlock the mysteries of biodiversity in our backyards and beyond.

### 60. Japanese moon probe back to work after sunlight reaches its solar panels

**Context:** A Japanese lunar explorer is now operational following several tense days without sunlight needed to power its systems. Despite landing upside down Japan's inaugural lunar mission has regained power with the arrival of the lunar day.

### About:

- The explorer is capturing images of the Moon's surface and transmitting them to Earth.
- After a rough landing caused by engine failure, JAXA utilized battery power to collect data about the touchdown and surroundings.
- Now, powered by sunlight, the probe is analyzing olivine rocks to understand the Moon's origin and evolution.
- JAXA's social media shared a black-and-white photo revealing the lunar landscape, including a rock nicknamed "Toy Poodle." SLIM, equipped with a multi-band spectral camera, aims to operate for several Earth days, despite uncertainties about its performance after the cold lunar night.

**Significance:** The landing near the Shioli crater marks Japan's achievement as the fifth country to reach the moon's surface, joining the ranks of the United States, the Soviet Union, China, and India.

### 61. Astronomers spot unusual objects that fall within the black hole 'mass gap'

**Context:** In a groundbreaking study published in Science, astronomers unveil a celestial enigma that defies conventional explanation.

### About:

- Neutron stars, some of the universe's densest entities, push the boundaries of our understanding of extreme matter.
- Compact yet massive, these stellar remnants may collapse into even denser black holes.
- In the star cluster NGC 1851, astronomers spotted an intriguing duo: a millisecond pulsar paired with a mysterious, unseen companion.
- Despite being invisible across all light frequencies, the pulsar's stable spin provides a unique window into the system.
- Using the MeerKAT radio telescope in South Africa, researchers meticulously tracked the orbits of these objects, revealing a combined mass nearly four times that of our Sun.
- Remarkably, the companion's mass falls within the elusive "black hole mass gap," presenting a
  profound astrophysical conundrum.

**Significance:** This discovery hints at a pulsar orbiting the remnants of a neutron star merger, challenging established theories of cosmic dynamics. Ongoing research promises to unravel the mysteries of this celestial dance, shedding light on the universe's most extreme phenomena.



## **YOJANA JANUARY 2024**

### 1. The Jan Vishwas (Amendment of Provisions) Act, 2023 Conception and Development

- The ministries in the Centre and the States/UTs have been trying to reduce compliance burden on businesses and citizens. It can be reduced by decriminalising minor offences.
- In this regard, the idea of a common amendment bill to unify decriminalisation efforts across sectors, saving time for both the judiciary and the legislative department, was put forward by the Hon'ble Prime Minister of India.
- The Jan Vishwas Act, 2023 was initiated to
  - simplify legal processes,
  - reduce compliance burden, and
  - foster a more business friendly environment.
- It prioritised a **balanced legal framework** to replace non-harmful and minor criminal offences with administrative actions and civil penalties respectively.
- The **coordination across 19 Union Ministries** for the Jan Vishwas Act required meticulous planning and clear communication channels. Regular consultations, inter-ministerial meetings, and a shared commitment to regulatory reforms were key to effective coordination. Challenges were addressed through extensive briefings, informal communication channels, and proactive approaches to swiftly resolve concerns, maintaining overall momentum.
- Stakeholder engagement during the formulation of the Jan Vishwas Act involved consultations at the ministry level and comprehensive efforts with industry associations. Regular communication channels were established to understand specific challenges faced by different industries, ensuring a balanced and practical approach. This highlights the government's commitment towards ease of doing business.
- The Act addressed provisions across **42 Acts administered by 19 ministries**, presenting challenges in managing such a comprehensive legislative overhaul. Common directions, a committee, and extensive legal vetting played pivotal roles in ensuring consistency across amendments.
- Aligning interests and objectives of various ministries was a major challenge during the Act's development.
  - In this regard, the guidance of the PM and the Cabinet Secretary helped to align the respective amendments of different ministries by providing a common aim and vision.
  - Additionally, a committee comprising CEO NITI Aayog, the Department of Legal Affairs (DoLA), the Department for Promotion of Industry and Internal Trade (DPIIT), and the respective ministries and departments was formed to establish principles guiding the decriminalisation process.
- The Act addresses provisions ranging across 42 Acts administered by 19 ministries.
  - Common directions issued to all respective Ministries helped to address the complexities by setting a unified and cohesive approach.
  - In addition, a committee of representatives from CEO NITI Aayog, the Department of Legal Affairs, and the Department for Promotion of Industry and Internal Trade, helped set common principles serving as a guiding framework.
    - One such principle was to specifically target the general criminal provisions (provisions prescribing punishments for any contraventions applicable across the Act). The strategy was to identify serious contraventions for separate criminalisation, while decriminalising minor provisions. For example, the general provision under the Environment Protection Act (Section 15) prescribed punishment for all contraventions under the Act with imprisonment up to five years. It has been amended under the Jan Vishwas Act, 2023 to be replaced with specified ranges of penalty according to the gravity of offences. The amendments were legally vetted extensively.
  - Inter-ministerial consultations also helped in better collaboration.

### It also reduces the workload from an overburdened judiciary.

- It achieves this by decriminalising (and replacing them with civil penalties or administrative actions) minor offences involving no harm to the public interest or national security.
- Severe criminal consequences are no longer attached to minor technical, and procedural defaults.
- The courts will no longer need to adjudicate upon majority cases originating from 183 provisions across 42 Acts after the implementation of the Jan Vishwas Act.
- Some legislatures also introduced suitable adjudication mechanisms wherever applicable and feasible. In addition, appellate mechanisms have also been introduced as grievance redressal forums for dissatisfactions arising from decisions of adjudicating officers related to the penalty.
- Presenting the Jan Vishwas Act to the Joint Parliamentary Committee (JPC) involved a meticulous process of addressing considerations and challenges. Transparent communication, detailed presentations, and responsiveness to the

An **adjudication mechanism** is one whereby an administrative or quasi-judicial authority impose a monetary penalty.

committee's concerns were crucial in accommodating recommendations, except for retrospective effect, which was deemed not feasible.

- The Jan Vishwas Act underwent a thorough review by the JPC, which made general recommendations, most of which were accepted by the ministries. Challenges included addressing the JPC's recommendation on retrospective effect, which was carefully examined and deemed unfeasible.
- Principles and learnings from the Jan Vishwas Act can guide future efforts, such as Jan Vishwas 2.0. These include directions from higher authorities, recommendations from the JPC, and a multifaceted approach to decriminalisation. The Act's success rested on collaborative efforts, transparency, and a commitment to incorporating valuable feedback into the legislative framework.

### 2. Trusting Citizens Decriminalisation Way

- The experience of drafting the Jan Vishwas (Amendment of Provisions) Bill, 2023 (Jan Vishwas Bill) was a unique and challenging endeavour for the Legislative Department of India.
- The Jan Vishwas Bill is part of the Indian Prime Minister's broader vision to **trust the people** and implement measures aimed at **easing living and doing business** in the country.
  - It aligns with initiatives such as self-attestation of documents, the creation of a national judicial data grid, and various other reforms in goods and services tax, insolvency, and bankruptcy laws.
  - Notably, the Jan Vishwas law represents a significant shift by converting criminal punishments into monetary penalties, promoting trust-based governance.
- The drafting team faced several **challenges** in this unprecedented task. With no exact legislative precedents and a diverse range of subjects involved, the team had to navigate uncharted drafting territory.
  - Initially proposed to amend around 30 enactments, the bill ended up **amending 42 Central** Acts with 182 provisions, spanning pre- and post-independence Acts.
  - The drafting process required collaboration with **19 administrative ministries**, vetting 42 draft notes for the Cabinet, and drafting an equal number of Amendment Bills.
- The urgency and timeliness of the task were evident, given the government's policy agenda focused on the 'Ease of Living' and the 'Ease of Doing Business.' The decision to draft a single bill covering all amendments to different acts, rather than individual bills, streamlined the process and reduced the burden on the Cabinet.
- The **primary objective** of the Jan Vishwas Bill is to replace imprisonment with monetary penalties for minor offences, rationalise penalties based on offence gravity, and facilitate adjudication by authorities other than criminal courts.
  - A key innovation involves incorporating provisions for **periodic revision of fines and penalties** to match inflation, ensuring fairness and proportionality.



- The drafting team also had to address the need for a suitable **saving clause**, considering the repeal of provisions in various Acts. The clause aimed to ensure that actions taken under the repealed provisions would remain valid.
- The **long and short titles of the bill** were carefully crafted to reflect the Prime Minister's vision of 'decriminalising' and 'rationalising' offences for the 'Ease of Doing Business.'
- The Jan Vishwas Act, despite being an **amending legislation**, holds a permanent place in the statute book. Its unique features, including the conversion of imprisonments into monetary penalties and periodic revisions, contribute to its lasting significance. There may be more Jan Vishwas Acts in the future, indicating a potential paradigm shift in **trust-based governance** and legislative approaches in India.

### 3. Government e-Marketplace (GeM) Leading the Digital Wave

- Government e-Marketplace (GeM), established in August 2016, is a robust digital portal facilitating end-to-end procurement for Central and State Government departments, organisations, and public sector undertakings (PSUs).
- It provides a paperless, cashless, and contactless ecosystem for government buyers to directly purchase goods and services from sellers across India.
- GeM covers the entire procurement process, from vendor registration to receipt of goods and timely payments.
- The **need for a digital solution in public procurement** arose due to the challenges of an opaque, time-consuming, and corrupt system that was prone to cartelisation.
  - GeM was envisioned to replace manual processes, making public procurement more efficient, transparent, and inclusive. The platform aimed to establish a competitive marketplace for quality goods and services at reasonable rates.
- **GeM's genesis** lies in transforming the public procurement ecosystem through a technologically advanced, digital-only platform. Digitalization has led to higher process efficiencies, improved transparency, reduced cycle times, and increased trust among bidders. The platform supports hassle-free digital transactions, empowering buyers and sellers nationwide.
- Despite challenges, GeM has witnessed **significant year-on-year growth**. In the first year, it recorded a Gross Merchandise Value (GMV) of ~INR 420 crore. In FY 21-22, transactions grew to INR 1 lakh crore, and in FY 22-23, an 88% growth was achieved, surpassing INR 2 lakh crore worth of GMV. GeM aims to breach the 3 lakh crore GMV mark in FY 23-24.
- Initially, GeM platform developed a wide range of product categories. But, it rapidly expanded its portfolio to include a large variety of service offerings as well.
  - One of the shining lights in GeM's success story is the **order value in services**, with **exponential growth** over the last 3 years. It witnessed 168% growth in FY 22-23 over the last year. It has received 4.8 lakh service orders valued at more than INR 2 lakh crore since its inception.
- GeM is a **category-driven e-marketplace** with over 11,600 product categories and 300+ service categories.
- **GeM promotes the Ease of Doing Business** by connecting buyers, sellers, and service providers in a unified platform. The platform's features include a dynamic goods and services platform, diverse buying modes, contract management, cashless payments, and a trust-based rating system.
- GeM has played a pivotal role in **empowering sellers of diverse backgrounds**, including MSMEs, startups, women entrepreneurs, artisans, and self-help groups. The platform ensures inclusivity, providing a level playing field in government tenders. **GeM Sahay**, a mobile application, addresses credit access challenges for MSMEs and startups, offering loans at the point of order acceptance.
- Looking ahead, GeM plans to revamp and upgrade its platform with advanced technologies, focusing on artificial intelligence, machine learning, augmented reality, and virtual reality.
  - The platform aims to enhance user experience, improve transparency, and promote inclusivity in public procurement processes.
  - GeM is committed to expanding its regional footprint, integrating government buyers from all tiers, and prioritising environmentally sustainable products and services to contribute to the country's net-zero carbon emissions commitment.

### 4. Delicate Balance: Regulatory Enforcement & Favourable Business Environment

### **Overview of Jan Vishwas (Amendment of Provisions) Act, 2023:**

- The Act marks a monumental shift in India's regulatory landscape, **decriminalizing 183 provisions** across 42 Acts administered by 19 ministries.
- Aims to balance regulatory enforcement and create a business-friendly environment, reflecting a departure from conventional approaches.

### Penalty Modification for Enhanced Deterrence:

- Substantial modification of penalties replaces imprisonment with higher fines/penalties for various offenses.
- Strategic shift focuses on effective deterrence against violations without disrupting business operations.

### Industry's Demand for Decriminalization:

- Long-standing industry demand for decriminalization to enhance the investment climate.
- Criminal cases against directors for minor operational offenses had created a deterrent effect and hindered businesses from realizing their full potential.

### FICCI's Principles of Decriminalization:

- Directors, especially independent directors, should not be held liable for operational noncompliances.
- Proposes no criminal liability for technical errors, only financial penalties.
- Advocates a graded **penalty** system **for subsequent non-compliances.**

### **Global Alignment in Regulatory Frameworks:**

- Act aligns with global trends emphasizing financial consequences over custodial sentences.
- Essential for India's integration into the global business landscape and showcases commitment to international standards.

### Impact on Micro, Small, and Medium Enterprises (MSMEs):

- Act simplifies regulatory frameworks, reducing the burden on MSMEs in day-to-day operations.
- Provides a more level playing field, benefiting MSMEs in competing with global counterparts.

### Jan Vishwas 2.0: Recommendations and Considerations:

- FICCI recommends additional considerations for the ongoing Jan Vishwas 2.0 exercise.
- Proposes differentiation between technical lapses and serious offenses.
- Suggests provisions for compounding offenses to streamline compliance and reduce litigation.

### Sector-Specific Recommendations:

- Highlights specific sections in labor codes, legal metrology, and environmental laws for modification.
- Advocates revisiting penalties to better align with business interests in these sectors.

### **Challenges and Solutions:**

- Acknowledges challenges at the state level due to overriding central legislations.
- Urges a targeted approach, with major states leading in the decriminalization process to enhance ease of doing business.

### Significance of Jan vishwas (Amendment of Provisions) Act, 2023:

- Recognizes the transformative impact of the Act on creating a more business-friendly environment in India.
- Stresses the need for continuous efforts at both central and state levels to address decriminalization effectively.

### Way Forward:

- Encourages states to follow the example of Haryana in initiating the process of decriminalizing certain laws.
- Emphasizes the importance of reducing burdensome compliances to enhance the ease of doing business and living for citizens.

### **Conclusion:**

- The Jan vishwas (Amendment of Provisions) Act, 2023, stands as a landmark initiative reshaping India's regulatory approach.
- Ongoing efforts and collaborative action at both central and state levels are imperative for sustaining and expanding the positive impact of decriminalization on businesses and the overall economic landscape.

### 5 Indo-African Relationship amidst South-South Cooperation

### Introduction to Global South Dynamics:

- The Global South emerges as a distinct voice in international multilateralism, representing developing countries' aspirations for recognition and power.
- Challenges include adverse global terms of trade, limited investment opportunities, sovereign debt concerns, and recent crises like climate change, COVID-19, conflict, and the rising cost of living.

### India's Role in Global South:

- India, as the founder of NAM (Non-Aligned Movement) and active participant in G77 deliberations, positions itself as a legitimate voice for the Global South.
- Utilizes reputational capital to secure wins in global rule-making and addresses issues of concern to developing nations.

### Historical Ties between India and Africa:

- Ancient trade between the Indus Valley and African civilizations documented.
- Maritime interactions between ancient Egypt and Indian rulers through the Indian Ocean established a 'monsoon culture.'
- Gandhi's moral and political awakening in South Africa solidifies ties, with African leaders expressing gratitude for Gandhian ethics.

### India's Contribution to African Development:

- India actively participates in UN peacekeeping missions, supporting newly independent African states.
- Bandung Conference marks a milestone in South-South Cooperation (SSC), challenging Northerndominated systems.

### Indo-African Cooperation Dynamics:

- Focus on UN Security Council reforms, health equity, climate justice, and energy security strengthens bilateral and plurilateral engagements.
- Engagement extends to regional organizations, including ECOWAS, African Continental Free Trade Agreement, BRICS, OIC, ADB, NDB, and more.





### **Economic and Trade Relations:**

- Trade volume records a fourteen-fold increase between 2001 and 2013.
- India becomes one of the top 5 investors in Africa with a hybrid engagement strategy.
- Trade diversification, private investments, and initiatives like India-Africa Partnership Project contribute to reaching \$100 billion in trade by 2022-23.

### **Developmental Initiatives and Investment:**

- Initiatives like Exim Bank's Focus Africa Programme and India-Africa Partnership Project promote development.
- Comprehensive economic cooperation agreements, trade pacts, and investment in various sectors contribute to mutual growth.

### South-South Cooperation Strategies:

- South-South Cooperation (SSC) evolves as a rule-maker, challenging traditional power dynamics.
- Triangular cooperation frameworks, such as g7+, aim for mutual benefit and shared goals.

### **Prescriptions for Enhanced Cooperation:**

- Focus on building productive capacities, especially in agriculture, food security, and rural development.
- Strengthen governance standards, improve human and social development through aid and investments, and explore debt-for-nature swap agreements.

### **Challenges and Future Initiatives:**

- Challenges include trade issues, political instability, logistics costs, and securitization of African resources.
- Future initiatives should be result-driven, demand-driven, and context-agnostic, focusing on human resources, knowledge, technology, and sustainability.

### **Role of South-South Cooperation in Global Development:**

- South-South Cooperation should be proactive in aligning with national systems and achieving global targets like SDGs and MDGs.
- Collaboration networks must deepen to avoid fragmentation and maximize the benefits of aid.

### **Conclusion:**

- Indo-African relations, embedded in the principles of South-South Cooperation, have evolved into a strategic partnership with economic, trade, and developmental dimensions.
- The future requires continued efforts towards mutual growth, addressing challenges, and fostering deeper cooperation in the evolving landscape of global development.

BYJU'S AS

## **KURUKSHETRA JANUARY 2024**

### 1. Redefining Rural Landscapes: Startups Paving the Way for Inclusive Development

- India is the 3rd largest startup ecosystem globally with over 1 lakh registered startups (DPIIT data).
- Startup culture is expanding beyond urban hubs, contributing to decentralisation and inclusivity where startups are leveraging technology to bridge the rural-urban divide.

### **Government Schemes for Rural Startups:**

- Atal Community Innovation Centres (ACIC): Launched under the Atal Innovation Mission (AIM) in 2020, it aims to create community innovation centres for rural entrepreneurs. 14 ACICs established till now, supporting 200+ community-based startups.
- Startup Village Entrepreneurship Programme (SVEP): Implemented by the Ministry of Rural Development, it is a sub-scheme under DAY-NRLM to support the rural people to set up enterprises at the village level in non-agricultural sectors
- Skill India Mission: Implemented by the Ministry of Skill Development and Entrepreneurship, it aims to skill development through various schemes like Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and National Apprenticeship Promotion Scheme (NAPS). 70.5% of PMKVY 2.0 beneficiaries have received placement after the programme.
- ASPIRE (Scheme by Ministry of MSME): It aims to provide training and incubation support to agro-rural entrepreneurs through Livelihood Business Incubators (LBIs). 61 Livelihood Business Incubators (LBIs) are functional in the country training more than 50,000 people.

### **Rural Startup Landscape:**

- Over 65% of the total population in India resides in rural areas, presenting a significant market.
- **Role of Digitization:** India has one of the cheapest data rates globally. Internet penetration and data accessibility are driving growth in startups catering to rural needs.
- Rural India presents a large market for startups, especially in sectors like agritech, food processing, edtech, skill development, e-commerce, health tech, renewable energy, handicrafts and traditional arts, and fintech.

### **Types of Rural Startups:**

- **Urban-based founders with rural solutions:** Entrepreneurs from urban areas addressing unique challenges faced by rural communities. It involves bridging the gap between urban and rural lifestyles by introducing technology-driven initiatives in agriculture, healthcare, education, etc.
- **Rural-based founders with rural solutions:** Develop solutions based on their firsthand knowledge of local needs and traditions, like agricultural innovations or craft preservation.
- Self-Help Groups (SHGs): Collective community enterprises focused on income generation and development through activities like handicrafts or micro-enterprises.
- Micro, Small, and Medium Enterprises (MSMEs): Local enterprises catering to specific demands of rural markets and contributing to employment and economic growth.

### **Challenges for Rural Startups:**

- **Connectivity Issues:** Limited connectivity with urban suppliers impacting operational efficiency due to delays, increased costs, and logistical complexities
- Access to Financing: Difficulty in securing reliable and affordable financing for rural startups.
- Lack of Support System: Absence of mentorship, networking opportunities, and incubation centres hindering growth.
- **Difficulty in Finding Early Adopters:** Limited communication channels, lower income and lower digital penetration pose challenges in identifying early adopters.
- Limited Funding Mechanism: Funding for startups is concentrated mainly in major urban centres, leaving rural startups with limited access to capital.

### **Conclusion:**

- The migration of startups from rural to urban areas is inevitable but establishing an enabling innovation ecosystem in rural areas is crucial.
- Fostering an environment supporting the growth of startups, particularly in rural areas, is imperative for achieving the USD 10 Trillion milestone by 2030.

### 2. Reform, Perform & Transform through Agri-Startups

- India has been ranked the third-largest unicorn hub globally, with a total of 90 unicorns, behind the United States of America and China.
- Agriculture contributes around 18% to India's GDP and 55% of the population relies directly on agriculture for their livelihood.
- The agricultural sector has witnessed steady growth in recent years, and the rise of startups has prompted young entrepreneurs to leave traditional roles to establish their own ventures.
- Technologies like hybrid seeds, Artificial Intelligence, geo-tagging, big data analytics, mobile apps, and farm management can be applied at every stage of the agricultural process to enhance productivity and increase farm incomes.

### Government Reforms Facilitating Startups:

- Make in India (2014): It aims to position India as a global design and manufacturing hub.
- Startup India (2016): 19-point action plan to boost innovation, funding support, and industryacademia partnerships. It has led to a notable increase in the establishment of new companies showcasing innovative ideas across various sectors.
- Atal Innovation Mission (AIM): It has been catalysing the development of innovation hubs, addressing grand challenges, nurturing startups, and promoting self-employment in technology-driven sectors.
- NewGen Innovation and Entrepreneurship Development Centre (NewGen IEDC): It promotes knowledge-based and technology-driven startups by supporting up to 20 new projects annually within educational institutions by providing one-time financial aid of Rs. 25 lakh.
- Innovation & Agri-Entrepreneurship Program (2018-19): It aims to increase farmers' income by promoting innovation.

### **Rising Proliferation of Agri-Startups**

• Over the past few years, a wave of agritech startups has surfaced in India, aiming to resolve issues such as marketing linkage, supply chain, use of outdated equipment, insufficient infrastructure, and limited access to diverse markets for farmers.

## Ecosystem Supporting Agri-Tech Startups:

- Incubators/Accelerators: a-IDEA, AGRI UDAAN, Centre for Innovation, Incubation and
- Entrepreneurship (CIIE), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Agri-Tech Startup Accelerator are a few important accelerators and incubators supporting the agri-tech sector in India
- Government Support in Union Budget 2023: Increased allocations for rural infrastructure, development of agriculture, and allied sectors. Integration of rural markets with e-Nam and broadening Minimum Support Price for comprehensive coverage of agricultural commodities.
- Agri-Startups Impacting Supply Chain and Market Linkage: Addressing challenges in India's supply-driven agriculture. Companies like Sabziwala, MeraKisan, and Dehaat successfully aggregated horticulture products.

### Conclusion:

- The Indian Government, through initiatives like "Startup India," actively supports the vibrant startup ecosystem, particularly in the agriculture sector.
- Agri-tech startups are integrating technology to transform market linkages and supply chains, contributing to the overall growth and sustainability of the agricultural sector.
- The comprehensive network of institutions is vital for converting agri-startup intentions into profitable enterprises.

### 3. Redefining the Food Processing Sector through Startups

- The food processing sector acts as a vital link between agriculture and industries, reducing wastage and ensuring value addition. This diversification and commercialisation of agriculture generates incremental employment and income for farmers.
- It's one of the fastest growing sectors in India, having grown at 10.3% from 2015–16 to 2020–21, compared to the overall manufacturing sector's 5.1% growth.

### Startups: Sunrise and Inclusive Growth:

- The food processing sector is a "sunrise sector" in India with tremendous entrepreneurial potential. Startups can play a crucial role in driving innovation and revitalizing supply chains.
- Role of Women: Women entrepreneurs make up a significant portion of the food processing sector. According to the Ministry of Food Processing Industries' Annual Report (2022–23), 25% of workers in the unincorporated non-agricultural enterprises of the sector are women.
- Initiatives like the Self-Reliant Fund for Micro, Small and Medium Enterprises (MSMEs) have provided equity support to growth-oriented startups.

### **Meeting Challenges through Focused Attention:**

• Startups in India face major challenges related to Availability, Accessibility, Affordability, and Awareness (the 4 "A"s).

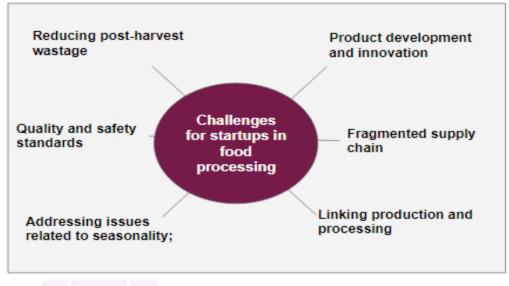


Figure: Challenges for Startups in the Food Processing Industry

### **Government initiatives:**

- Make in India: Food processing is a priority sector under this initiative.
- Various schemes: Pradhan Mantri Kisan Sampada Yojana, Formalisation of Micro Processing Enterprises, Production Linked Incentive Scheme, Agri-Infra Fund, etc., all promote the food processing sector.

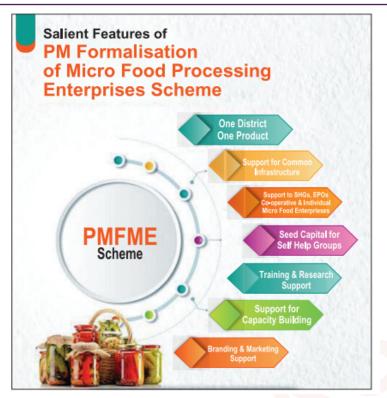


Figure: Pradhan Mantri Formalisation of Micro Food Processing Enterprises Source: kurukshetra

• Foreign Direct Investment: 100% FDI under automatic route is allowed. The sector has attracted Rs. 50,000 crore of FDI in the last nine years.

### **Promoting Startups:**

- Fund of Funds scheme: Providing capital for early, seed, and growth stages of startups.
- Credit guarantee scheme for loans taken by startups.
- Fast-tracked patent applications and disposal for startups.
- Tax benefits and extended incorporation periods to bolster resilience.
- Agriculture Accelerator Fund: Encouraging agri-startups by young rural entrepreneurs.
- Government agencies like the Agricultural and Processed Food Products Export Development Authority (APEDA) facilitate exports and collaborations with other countries. The share of processed foods in exports has risen from 13% in 2014 to 23% in 2023.

### **Conclusion:**

- Technological advancements and changing consumer preferences could drive the growth of startups in food processing sector.
- Startups across the value chain have potential and dynamism to bring transformational changes in the economy.

### 4. Startups as the Engine of Growth for North-East India

### **Overview of India's Startup Landscape:**

- India's startup ecosystem has witnessed remarkable growth, emerging as the third-largest globally with over 1.12 lakh startups across 763 districts.
- The startup movement is crucial for capitalizing on new opportunities, creating wealth, and generating jobs, especially considering the demographic dividends.

### Transformation in Entrepreneurship:

- The last decade has seen a surge in entrepreneurship in India, driven by innovative solutions and technology.
- Policy reforms have played a pivotal role, fostering a shift from a job-seeking mindset to a culture of job creators.

### Startups and India's Economic Ambitions:

- Startups are integral to India's ambition to become the third-largest economy globally.
- The ecosystem has expanded beyond traditional hubs, with 49% of startups emerging from Tier 2 & 3 cities.

### **Diversity in Startups and Sectors:**

- Startups in India are solving problems across 56 sectors, showcasing diversity beyond the conventional IT services.
- Cities like Hyderabad, Pune, and Chennai have become startup hubs, with entrepreneurs from smaller towns contributing scalable opportunities.

### Startups in North-East India:

- The entrepreneurial ecosystem in North-East India is evolving, albeit not at the same pace as metropolitan areas.
- Each state in the region has implemented its startup policies, with Assam and Manipur leading the startup ecosystems.

### Sectors Dominating North-Eastern Startups:

- Startups in North-East India primarily focus on sectors such as agriculture, handloom, textiles, tourism, IT & ITES, retail, health, education, waste management, and renewables.
- Agriculture and allied activities hold the majority, followed by ITES, handloom & textiles, and education.

### Challenges Faced by North-Eastern Startups:

- Common challenges include limited access to funding, lack of skilled manpower, limited mentorship support, and the need for professional services.
- The region faces unique challenges compared to more mature startup ecosystems in metropolitan areas.

### **Incubators and Funding Initiatives:**

- The North-East region has around thirty incubators, with 80% hosted in academic institutions.
- While there are funds like the North-East Venture Fund (NEVF), a small percentage of startups are fit for accessing venture capital funding.

### Challenges in Scalability and Innovation:

- A significant number of startups in North-East India are 'me-too' ventures, posing challenges for scalability.
- Mentorship and technical guidance are identified gaps in the ecosystem, hindering the growth of innovative startups.

### Possible Way Ahead for North-East Startups:

- Emphasis on integrating design thinking, creative capacity building, and collaborative problemsolving for startups.
- Structured support needed for funding, documentation, and creating a vibrant and inclusive community of entrepreneurs.

### **Empowering North-East Startups:**

- Building a wide pipeline of innovative, entrepreneurially skilled youth is crucial.
- Evolving outcome-oriented sustainable incubation modes that support competitive businesses, even without venture funding.

### Integration and Collaboration:

- Building leaders of incubators, expert mentors, consultants, lawyers, accountants, and technical experts.
- Integrating information, infrastructure, funding efforts across government agencies, private incubators, and funding institutions.

### Leveraging 'Aatmanirbharta' for Growth:

- Capitalizing on the Government of India's focus on 'Aatmanirbharta' (self-reliance) is essential for startups in North-East India.
- The 'Aatmanirbhar Bharat' initiative aligns with the spirit of innovation and entrepreneurship, offering opportunities for startups.

### **Global Opportunities for Indian Startups:**

- India's economic growth, technological advancements, and youthful workforce create a promising backdrop for startups.
- International collaboration and focus on sustainability align with global SDG priorities, offering opportunities for Indian startups.

### North-East India as a Gateway:

 North East India's Act East Policy positions it as a gateway to Southeast Asia, providing startups with a strategic platform for success.

### **Conclusion:**

- The evolving startup ecosystem in North-East India holds significant potential for growth and innovation.
- Addressing challenges, fostering mentorship, and leveraging government initiatives can empower startups to contribute to the region's economic development.

### 5. Supporting Women-led Startups

- The Indian startup ecosystem is growing rapidly, with increasing participation of women entrepreneurs.
- The number of women-led startups has increased from 6,000 in 2017 to 80,000 in 2022 (a 1233% increase).
- The share of VC funding to women-led startups increased from 11% in 2017 to 20% in 2022.
- Women-led companies have performed 63% better than male-led companies in terms of Return On Investment in the last decade.
- Out of 105 startups turned unicorns in 2022, 17% were women-led startups.

### **Government Initiatives to Promote Women Entrepreneurship:**

- Fund of Funds for Startups scheme: 10% of the funds in the Fund of Funds for Startups scheme is reserved for women-led startups.
- Virtual Incubation Programme for Women Entrepreneurs: Supported 20 women-led tech startups with pro-bono acceleration.

- Webpage Dedicated to Women Entrepreneurs: Provides policy measures by Central and State Governments.
- Awareness and Capacity-Building Workshops: Various workshops focusing on women entrepreneurs' needs.
- WING (Women in India's Startup Ecosystem): Aims to support 7,500 women entrepreneurs annually through capacity development.

### Challenges to Women-led startups

 Women-owned startups face challenges in accessing credit due to collateral, creditworthiness, and perceptional biases.

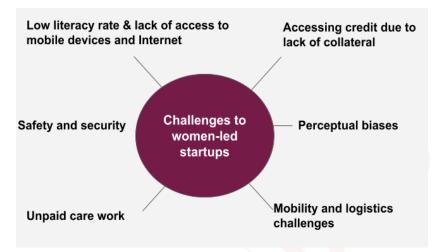


Figure: Challenges to women-led startups

### **Government Schemes for Supporting Women-led Startups:**

- Mudra Yojana for Women/Mahila Udhyami Yojana: Offers loans up to Rs. 10 lakh without collateral for women entrepreneurs in non-corporate, non-farming, and non-agriculture-based businesses headed by women entrepreneurs.
- Stand-Up India (SUI) Scheme: Facilitates bank loans between Rs. 10 lakh and Rs. 1 crore to at least one Scheduled Caste (SC) or Scheduled Tribe (ST) borrower and at least one woman borrower per bank branch for greenfield enterprises.
- Special Schemes for Rural/Disadvantaged Women: This includes Skill Upgradation and Mahila Coir Yojana training programs aimed at the skill development of women artisans engaged in the coir industry.
- Mahila Samridhi Yojana: A microfinance scheme for women from backward classes by the National Scheduled Castes Finance and Development Corporation (NSFDC) under the Ministry of Social Justice.
- Women Entrepreneurship Platform (WEP): Hosts information, workshops, and campaigns for women entrepreneurs.
- Nai Roshni Scheme: A leadership development program for women belonging to minority communities.
- Special Schemes of Public Sector Banks: Concessional financing options for women entrepreneurs. Examples include the State Bank of India (Stree Shakti Scheme), Punjab National Bank (PNB Mahila Udyami), and Central Bank of India (Cent Kalyani).

### Way Forward:

- According to the NITI Aayog report 'Decoding Government Support to Women Entrepreneurs in India,' the economic contribution of women in India accounts for 17% of the GDP.
- There is a need for more effective implementation of schemes to benefit female entrepreneurs and ensure equal access to all entrepreneurship support schemes.
- Additionally, there is a need for non-financial support such as technology upgrades and skill training, as well as more schemes supporting entrepreneurship in the digital economy.
- Women-owned enterprises can bring about demographic shifts and inspire future generations.

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## **SCIENCE REPORTER JANUARY 2024**

### 1. Understanding the intricacies of Living Beings

### Advancements in Heart Disease Research:

Researchers at the Institute of Molecular Biotechnology (IMBA) developed a multi-chambered heart organoid model addressing the lack of a complete human heart physiological model. This breakthrough enables the development of new drug screening platforms, toxicological studies, and a deeper understanding of heart development, potentially revolutionizing therapies for heart disease, a major global health concern.

### • Synthetic Yeast Genome Creation:

In a significant step in synthetic biology, experts from the University of Nottingham and Imperial College London completed one of the 16 chromosomes of the world's first synthetic yeast genome. The project harnesses yeast's unique ability to stitch DNA together, unlocking its potential for creating new chemicals and modelling human cell behaviour.

### • Mapping the Insect Brain:

Scientists from Johns Hopkins University and the University of Cambridge achieved the first detailed mapping of neurons in a fruit fly larva's brain, shedding light on neural connectivity. The study, published in Science, provides valuable insights into brain processing mechanisms, using fruit flies as models due to their comparable brain structure to humans.

### • Synthetic Embryos from Stem Cells:

Researchers at the University of Cambridge developed model embryos from mouse stem cells without traditional egg and sperm. These synthetic embryos exhibit the formation of a brain, beating heart, and foundational structures for various organs, offering new possibilities for understanding mammalian development.

### Cryopreserved Rat Kidney Transplantation Breakthrough:

A groundbreaking demonstration by researchers from the University of Minnesota Twin Cities showcased the successful transplantation of a cryopreserved rat kidney, restoring full kidney function. The protocol for long-term storage, rewarming, and transplantation opens avenues for cryopreserved organ transplantation, potentially transforming organ transplantation and saving human lives.

### • Live Birth of a Chimeric Monkey:

Chinese researchers reported the first live birth of a chimeric monkey, containing cells from two genetically distinct embryos of the same species. This achievement, previously observed in rats and mice, marks a significant step in genetic manipulation, potentially paving the way for similar advancements in other animal species.

### 2. Bioplastics: Can they be a solution to plastic pollution?

Plastics, derived mainly from fossil fuels, have become ubiquitous in modern life, contributing significantly to environmental pollution. Their production, disposal, and resistance to degradation pose severe challenges. However, the emergence of bioplastics presents a potential solution to address the environmental impact of traditional plastics.

### **Current Plastic Scenario**

- Plastics, primarily petro-plastics, are inexpensive, versatile, and durable, but their widespread use has led to environmental issues.
- The production of plastics consumes a significant portion of crude oil, contributing to greenhouse gas emissions.
- Disposal is a major concern as plastics persist for decades, harming ecosystems and marine life. Single-use plastics, constituting nearly half of plastic production, are particularly problematic.

- Biodegradability is a key feature, allowing these plastics to break down naturally within about 180 days, reducing long-term environmental impact.
- There are two main types of bioplastics: those naturally produced by microorganisms and plants, and those synthesised using biomass as a feedstock.

### **Types of Bioplastics:**

- Polyhydroxyalkanoates (PHAs): PHAs are a diverse group of bioplastics produced through bacterial fermentation. They exhibit versatile properties suitable for various applications, including single-use items. PHB, a type of PHA, has similarities to petro-plastic PET and is used in medical applications due to its immunological inertness.
- **Polyethylene Furanoate (PEF):** PEF, partially biobased, serves as an alternative to PET. Replacing PET with PEF can significantly reduce non-renewable energy consumption and greenhouse gas emissions. Some prototypes, like Coca-Cola's bio-PET, are 100% biobased and biodegradable.
- **Polyethylene (PE):** PE derived from sugarcane juice offers an alternative to petro-based plastics like High-Density Polyethylene (HDPE) and Low Density Polyethylene (LDPE). The process involves fermenting sugarcane juice to produce ethanol, which is then used to create various types of plastics.
- **Polylactic Acid (PLA):** PLA is a bioplastic derived from corn starch, providing properties similar to traditional plastics. PLA production significantly reduces greenhouse gas emissions and energy consumption compared to petro-plastics.

### **Challenges and Considerations:**

- Cost and Feedstock Issues: Bioplastics are currently 2 to 5 times more expensive than traditional plastics due to the cost of biobased feedstocks. The use of edible crops as feedstocks raises concerns as it competes with food production. Utilizing non-food crops, food waste, or sewage water as feedstocks could address these issues.
- Environmental Impact: While bioplastics offer biodegradability, some may only degrade under industrial composting conditions. The overall environmental impact, considering land use, water consumption, and other factors, is still under scrutiny. The integration of waste streams, like food waste and sewage water, into bioplastic production could provide more sustainable solutions.
- **Disposal Challenges:** Some bioplastics may require industrial composting conditions for efficient biodegradation, posing challenges in regions without such facilities. If not disposed of properly, they may end up in landfills, contributing to long-term environmental issues.

Bioplastics present a promising avenue for reducing the environmental impact of plastics. With ongoing research and development, addressing cost concerns, utilizing alternative feedstocks, and improving disposal methods, bioplastics could emerge as a viable and sustainable alternative to traditional plastics. However, careful consideration of the entire life cycle and continued advancements in technology are essential to ensure that bioplastics truly offer a more environmentally friendly solution.

### 3. India's NavIC will now be supported by 'Made in India' chipsets

### **NavIC Overview:**

- NavIC is a satellite-based navigational system, developed by the Indian Space Research Organisation (ISRO), which enables users to determine their precise geographic location and track their movements anywhere in India and 1500 km beyond India's territorial boundary.
- NavIC comprises a constellation of seven satellites orbiting high above, weaving a celestial tapestry of signals that empower navigation, positioning, and timing across the vast Indian subcontinent and beyond.
- The NavIC system primarily uses IRNSS (Indian Regional Navigation Satellite System) signals for navigation and positioning.



 Operates similarly to GPS but is owned and operated by India, offering a positional accuracy of 5 meters compared to 15–20 meters of GPS.

### Foreign Chipsets Challenge:

• Not all smartphones are compatible; reliance on foreign chipsets from Qualcomm and MediaTek.

### Indigenous Chipset Initiative:

- Ministries of Electronics and Information Technology and Science & Technology collaborate with Manjeera Digital Systems for 'Made in India' chipsets.
- Hyderabad-based Manjeera Digital Systems designs a baseband processor chip using an indigenously developed Universal Multifunctional Accelerator (UMA) processor IP.

### **Chipset Features:**

- Capable of receiving, reading, and processing NavIC signals for navigation and tracking.
- Addresses the need for NavIC-compatible chipsets in smartphones and navigational devices.

### Benefits of this initiative:

- Atmanirbhar Bharat: Aligns with the vision of technological independence.
- Boosts Public-Private Partnerships: Encourages collaboration between government and private sector.
- Enhanced Accessibility: Domestic chipsets can potentially lower NavIC device costs.
- National Security: Reduces reliance on foreign technology for critical infrastructure.

**DOWN TO EARTH JANUARY 2024** 

### 1. Bird flu hits Antarctica

In September 2023, the British Antarctic Survey identified a highly infectious variant of **bird flu**, **clade 2.3.4.4b HPAI H5N1**, on Bird Island near South Georgia. This variant, responsible for the global bird flu panzootic, had never been reported in the Antarctic. The virus rapidly spread, causing significant mortality among birds and mammals, with close to 100 brown skuas and several seals succumbing to the infection on Bird Island.

The variant's emergence in the sub-Antarctic region has raised concerns about its potential impact on the core Antarctic, particularly on dense populations of penguins. The virus, marked by unprecedented virulence, has undergone a substantial shift in epidemiology, spreading rapidly through wild bird migration and affecting seabirds for the first time. Researchers fear disastrous breeding failure and mortality events.

The virus's journey began in Central and South America in October 2022, **spreading rapidly along the Pacific coast to the Falkland Islands.** By August 2023, it had caused mass casualties, claiming 500,000 seabirds and 20,000 marine mammals in South America. The virus's increased intensity since 2022 has affected bird populations across the Northern Hemisphere.

### **Potential Disaster**

- A study revealed that Antarctica remained the only major region where HPAI H5N1 had not been detected until now.
- The Falkland Islands and South Georgia, vital areas for avian biodiversity, face a significant risk, with potential impacts on susceptible bird species. Penguins, nesting in high densities, are particularly vulnerable, and researchers stress the interconnectedness between avian and mammalian species in the Antarctic region, facilitating the virus's spread.
- Factors aiding the spread include limited options for carcass disposal and environmental cleanup in the remote Antarctic, where virus survival is prolonged due to the cold climate. Researchers fear if HPAI H5N1 enters penguin colonies, it could cause rapid infection, spread, and mortality, potentially leading to one of the largest ecological disasters of modern times.
- While uncertainties exist about the virus reaching the continent's interior, concerns about anthropogenic factors and genetic mutations persist.
- The Antarctic Wildlife Health Network (AWHN) has established a repository to monitor and record suspected and confirmed HPAI H5N1 outbreaks in the region. Urgent surveillance and mitigation efforts are deemed essential to protect Antarctic wildlife.

### 2. Hunger Strikes Forests

Indian forests are facing a severe threat as invasive plant species rapidly replace native vegetation, causing a food crisis for wildlife and constraining their natural habitats. Instances of human-animal conflicts, such as elephants raiding crops, are often attributed to the shortage of food in the forests. The invasion is primarily driven by plants like Lantana camara and Senna spectabilis, which engage in chemical warfare, altering soil composition and rendering it unsuitable for other plant species. As a result, the food crisis is not only impacting herbivores but also reshaping the dietary patterns of wild animals.

A study reveals that approximately **66%** of India's natural systems are infested by 11 invasive species, compromising the availability of food for wildlife. This widespread invasion is a consequence of human activities, with species like Lantana camara introduced for ornamental purposes around **200**-**250 years** ago. Human interventions, including horticultural practices and habitat alterations, have given invasive plants a competitive advantage over native species.

The invasion is not limited to a specific climatic zone, affecting both open and deciduous ecosystems. Human actions, including land-use conversion, mining, and infrastructure development, create niches that invasive species exploit, leading to a domino effect on native ecosystems.

### Running out of food

- The consequences of invasive species are evident in various parts of India. In Karnataka, the annual summer migration of elephants to the Kabini backwaters has significantly declined due to the encroachment of Prosopis juliflora.
- In Gujarat, invasive species threaten sloth bears, impacting their nutrition requirements. The reintroduction of cheetahs in the Kuno National Park faces challenges from invasive species like Prosopis juliflora, Lantana camara, Cassia tora, Ageratum conyzoides, and Eupatorium spp.
- The invasion is not only affecting herbivores but also impacting carnivores dependent on herbivore populations.
- The decline in herbivore numbers is cited as a reason for the shrinking populations of elephants and tigers in Kerala. Restricted movement within invaded forests leads to animals entering human settlements in search of food, escalating human-animal conflicts.
- Forest departments are initiating efforts to address the crisis, including plantation drives to stabilize food availability. However, the outcomes remain unsatisfactory, with challenges such as altering natural forest compositions and potential inflation of certain species' populations. Tamil Nadu stands out as a state actively addressing the issue, implementing a policy on invasive plants and ecological restoration, designating priority invasive varieties, and actively reclaiming forestland.

Experts emphasize the need for a comprehensive legislative framework and a nodal agency to deal with invasive species at the national level. Currently, India relies on various existing legislations and policies, but a unified approach is deemed necessary to effectively prevent and manage the invasive species crisis. The invasive species issue highlights the interconnectedness of ecological challenges, human actions, and wildlife conservation, underscoring the importance of a holistic and collaborative approach to protect India's diverse ecosystems.

### 3. Marginal Triumph

COP28 recently concluded in Dubai amidst a world grappling with climate change, inequality, and insecurity. While the conference fell short of radical transformation, it shifted the narrative, emphasizing the need for both quantity and quality in climate finance.

The "Outcome of the First Global Stock take" highlights the importance of grant-based concessional finance for the South and addresses the debt burden of vulnerable countries.

The document also introduces discussions on fossil fuels, acknowledging the need for phaseout deadlines and transitional fuels. The focus now is on operationalizing finance and establishing a roadmap for fair and funded fossil fuel phaseout to achieve climate justice. The urgency of action is paramount in creating a climate-secure and equitable world.

### **Minor Victories**

- COP28 addressed the contentious issue of fossil fuels in climate change, with developed countries advocating for an immediate phaseout, while emerging economies resisted due to their dependence on coal. Tensions rose as leaked letters and rumors hinted at behind-the-scenes reluctance, particularly from the US.
- Despite initial concerns about the COP28 president's ties to the national oil company, the conference managed to finalize a compact agenda, including the operationalization of the Loss

and Damage Fund to assist vulnerable nations.

 The Global Stocktake document, flawed with loopholes, ultimately compromised by advocating for a "transition away" from fossil fuels instead of a phaseout. While criticized for its shortcomings, the agreement reflects the complex dynamics of global negotiations involving diverse countries with varying historical trajectories and economic interests related to fossil fuels.

### **GLOBAL STOCKTAKE**

### **KEY OUTCOMES**

- Global Stocktake adopted, with a call to transition away from fossil fuels.
- The responsibility of developed countries to provide grant-based climate finance is recognised.

### GAPS

- No mention of oil or gas phase-down. Acceptance of transitional fuels in facilitating shift to cleaner energy allows nations, like the US, to continue producing natural gas, a fossil fuel.
- Details on financing fossil fuel transition through differentiated pathways are absent.

### Analysis:

At COP28, the Global Stocktake, aimed at assessing progress toward Paris Agreement goals, faced challenges in framing its final text. The process involved multiple iterations and contentious discussions, particularly on the crucial issue of fossil fuel phaseout. Initially presented as optional, the final version removed the language of fossil fuel reduction as an option and introduced the concept of "transitioning away" from fossil fuels.

However, loopholes remain, including the absence of references to oil and gas reduction and the inclusion of "transitional fuels" like natural gas. The text also addressed finance, moving a paragraph on the growing needs of developing countries to the finance section, reflecting a long-standing demand of developed nations. While acknowledging the need for more concessional climate finance, gaps persist in operationalizing equity in the fossil fuel transition, including different timelines for developed and developing countries and addressing historical emissions.

### LOSS AND DAMAGE FUND

### **KEY OUTCOMES**

- The World Bank to host the interim secretariat of the Loss and Damage Fund (LDF) for four years.
- All developing countries eligible to access LDF.
- Direct access to communities.

### GAPS

- Replenishment cycle for the fund missing.
- Absence of the inclusion of the principles of equity and Common But Differentiated Respon sibilities-Respective Capabilities (CBDR-RC) in light of different national circumstances.
- Room for the private sector to come into the fund though insurance mechanisms, such as the Global Shield initiative.

### Analysis:

On the first day of COP28, the COP28 presidency achieved a significant milestone by operationalizing the Loss and Damage Fund (LDF), garnering pledges of approximately \$725 million from various developed and developing nations. However, the finalization of the LDF text faced challenges. The fund falls short of addressing the estimated annual loss and damage needs of vulnerable developing countries, which is projected to be up to \$400 billion.

The LDF decision text, adopted at COP27, led to debates, particularly regarding the proposal to host the fund within the World Bank, opposed by developing countries due to concerns about the bank's track record and hosting fees. Ultimately, a compromise allowed the World Bank to host the LDF for a four-year interim period, subject to conditions ensuring autonomy, inclusive eligibility, and direct access for developing countries.

Despite disagreements, all developing countries were deemed eligible to access the fund, countering proposals for restrictions to Least Developed Countries and Small Island Developing States. Criticisms persist regarding the insufficient contributions from some developed nations, like the US, and the absence of a replenishment cycle in the LDF text.

### ADAPTATION

### **KEY OUTCOMES**

- A global consensus on adaptation targets and the need for finance, technology and capacitybuilding support to achieve them.
- Seek to close the adaptation-finance gap.

### GAPS

- Language around finance and other means of implementation of targets remains weak.
- Principles of equity and CBDR-RC missing.

### Analysis:

At COP28, negotiations for the Global Goal on Adaptation (GGA) framework were crucial, particularly for developing country groups like the African Group of Negotiators. Initial drafts faced rejection by most developing countries due to insufficient language and exclusion of key issues. Subsequent drafts saw improvements with the inclusion of contentious topics such as Common But Differentiated Responsibilities and Respective Capacities (CBDR-RC), a finance target, and recognition of the adaptation-finance gap.

Developing countries argued that even doubling adaptation finance by developed nations would only bridge 5-10% of the substantial gap estimated at \$194 billion to \$366 billion annually. A proposed target of \$400 billion per year until 2030 was suggested. Despite rounds of negotiations, the COP28 presidency introduced a weaker draft on December 10, removing the financial target and creating disagreements around CBDR-RC. The final text, released in the early morning hours of December 11, slightly improved with the removal of a paragraph on Article 2.1c but maintained a commitment to "seek" closure of the adaptation finance gap. The timeframe for achieving thematic targets was reinstated as 2030. The agreement on GGA was crucial for overall negotiations, including the Global Stocktake.

### MITIGATION WORK PROGRAMME

### **KEY OUTCOMES**

• A procedural decision text that invites submissions from Parties and other groups for topics to be discussed at Global Dialogues in 2024.

### GAPS

• No discussion on barriers to and opportunities for the energy transition, and the financial and technological needs of developing countries that developed countries must assist with.

### Analysis:

The Mitigation Work Programme (MWP), proposed by the US at COP26 to encourage enhanced mitigation ambitions, faced resistance from developing countries. Discussions during the mid-year climate conference in Bonn in June 2023 stalled as developing nations insisted on financial support for ambitious mitigation goals. Two global dialogues on energy transition and transport were organized between Bonn and Dubai, but the MWP made limited progress at COP28.

Developed nations sought alignment with the 1.5°C goal, while developing countries highlighted barriers to finance for energy transition. India advocated for a non-prescriptive and non-punitive MWP, emphasizing the need to avoid duplicating Global Stocktake processes. The final text from Dubai invites submissions for future global dialogues in 2024 and considers supplemental discussions at regional climate weeks.

The MWP's failure to delve into substance in Dubai is attributed to reluctance to prejudge Global Stocktake outcomes and mistrust among Parties regarding mitigation burden distribution. Developing countries stress the need for balanced attention to adaptation and loss and damage, emphasizing the importance of differentiated burden-sharing and addressing trust issues in 2024 to make the MWP a constructive space for collaborative solutions in the energy transition.

### **CLIMATE FINANCE**

### **KEY OUTCOMES**

- Parties agreed to at least three technical expert dialogues and three consecutive meetings conducive to negotiations in 2024.
- Need to shift from technical to negotiations mode recognised by all Parties.

### GAPS

• Substantive elements of New Collective Quantified Goal (NCQG) pushed to 2024 deliberations.

### **Analysis:**

COP28 aimed to establish the New Collective Quantified Goal (NCQG) for post-2025 climate finance, succeeding the \$100 billion per year pledge by developed nations until 2025. However, developing nations argued that the \$100 billion goal is insufficient, estimating their needs at trillions of dollars by 2030.

Initial discussions at COP28 focused on the time frame, structure, transparency, and scope of the NCQG. Procedural details dominated discussions, leading to the watering down of the draft text from 205 paragraphs to a 26-paragraph document, with limited progress.

Debates revolved around expanding the donor base, fears of wealthy nations imposing conditionalities on funds aligned with low emissions, and pushback from developed countries on discussing the quantum of the goal. Developing countries sought removal of references to Article 2.1c of the Paris Agreement, and discussions on the specific financial amount faced resistance from developed nations.

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### **CARBON MARKET**

### **KEY OUTCOMES**

• A decision text on Article 6.8 of the Paris Agreement, which covers climate actions without trading carbon credits, was agreed to.

### GAPS

• No deal on market mechanisms under Articles 6.2 and 6.4.

### Analysis:

COP28 witnessed a failure to establish operational rules for carbon markets, a longstanding discussion under Article 6 of the Paris Agreement. Two crucial aspects, Article 6.2 and Article 6.4, which involve the trading of carbon credits, faced challenges and failed to secure global consensus.

The first topic, Article 6.2, allowing countries to trade credits through mutual agreements, saw disagreements over provisions like revoking authorization and human rights considerations.

The second topic, Article 6.4, centered on a centralized market system, faced obstacles regarding standards for methodologies and carbon removal projects. The absence of a clear decision on Article 6.4 means existing voluntary carbon markets will persist, despite concerns about their effectiveness.

On a positive note, COP28 did see progress in adopting the negotiating text for Article 6.8, focusing on non-market approaches and recognizing the work done by the Glasgow committee in this regard.

### METHANE

### **KEY OUTCOMES**

• Countries called on to accelerate and substantially reduce non-carbon dioxide emissions globally, including methane emissions, by 2030.

### GAPS

• No quantifiable target on reducing methane emissions.

### Analysis:

Methane emerged as a significant focus at COP28, gaining mention in the Global Stocktake with a call for substantial methane reduction by 2030. Despite discussions not resulting in a quantifiable target, the acknowledgment of the need to cut methane emissions was noted.

The Global Methane Pledge Ministerial featured the US committing to curb 58 million tonnes of methane emissions from 2024 to 2038, with over \$1 billion raised through the Methane Finance Sprint. Canada proposed draft regulations to lower methane emissions, while the Oil and Gas Decarbonization Charter saw 50 companies pledging near-zero methane emissions by 2030.

Agricultural initiatives like the Dairy Methane Action Alliance and the low-Methane initiative were launched at COP28, and several countries joined the Global Methane Pledge. Methane financing remains below estimated global needs, emphasizing the importance of collaborative efforts to address this potent greenhouse gas.

### DECARBONISATION

### **KEY OUTCOMES**

- Many voluntary initiatives on decarbonisation.
- Call to adopt zero- and low-carbon fuels.
- Phasing out inefficient fossil fuel subsidies.

### GAPS

• No deadline to phase out inefficient fossil fuel subsidies.

### Analysis:

COP28 showcased numerous voluntary initiatives for decarbonization in energy and industry, with the Global Decarbonisation Accelerator (gda) leading the way, supported by the Global Renewables and Energy Efficiency Pledge from 123 countries. The "industrial transition accelerator" received a \$30 million fund to expedite emission reduction projects in heavy-emitting industrial sectors.

The "oil and gas decarbonisation charter" committed 50 companies to zero methane emissions by 2030, but it omitted emissions indirectly affecting the value chain. The uae's hydrogen declaration aimed at global low-carbon hydrogen trade, recognizing existing certification schemes. Other partnerships, pledges, and declarations addressed industrial and energy system decarbonization, including bilateral partnerships, a climate club, and pledges for low-carbon steel and cement production.

The Global Stocktake called for phasing out inefficient fossil fuel subsidies and accelerating zero- and low-emission technologies. However, the absence of specific timelines for fossil fuel phaseout and challenges in affordability and feasibility of certain technologies were noted. The COP28 outcomes were characterized as a mixed bag, addressing key issues alongside discussions that raised concerns about greenwashing and potential delays. The COP29 presidency of Azerbaijan, an oil and gas-producing nation, is anticipated to face significant challenges in 2024, a pivotal year requiring concrete actions for climate transition.

### **PRIME INITIATIVES**

Parties and stakeholders announced over 80 voluntary 'declarations' during COP28 that reflect their priorities. The declarations are not bound by the UN climate convention rules. Here's a look at a few key pledges

Key Pledges	Sector	Purpose	Signatories	India's position
GLOBAL ELECTRIC COOKING COALITION 'GECCO'	Energy	Promote transition to electric cooking by providing action plans and mobilising finance	At least 10 countries in sub-Saharan Afri- ca, Asia, Latin Ameri- ca and the Caribbean	Signatory
OIL & GAS DECARBON- IZATION CHARTER	Energy	To call on industry to pursue net zero by or before 2050, zero out methane emissions, eliminate routine flaring by 2030	30 national oil com- panies and 20 inde- pendent oil compa- nies	India's Oil and Natural Gas Corporation Lim- ited has signed up
GLOBAL RENEWABLES AND ENERGY EFFI- CIENCY PLEDGE	Energy	Triple worldwide installed re- newable energy generation ca- pacity and double energy effi- ciency by 2030	123 countries	Not a signatory. Dis- inclined to sign a pledge that asks for a phase-down of coal power



GLOBAL COOLING PLEDGE	Energy	To reduce cooling-related emis- sions across sectors by at least 68 per cent globally relative to 2022 levels by 2050	63 Countries	Not a signatory. With low per capita emis- sions and energy consumption, and cooling needs set to rise, India might not want to commit to investments that will raise cooling costs.		
COP28 UAE DECLA- RATION ON CLIMATE AND HEALTH	Health	Build more climate resilient health systems, promote steps to curb emissions in the health sector, and increase finance	123 countries	Not a signatory. Lack of practicality in curb- ing greenhouse gas- es in cooling in the health sector the like- ly cause for not sign- ing		
DECLARATION TO TRI- PLE NUCLEAR ENERGY	Energy	Triple nuclear energy capacity globally by 205	25 countries	Not a signatory. The position is unclear. The government is increasing nuclear power capacity three- fold by 2031-32		
COP28 DECLARATION ON FOOD AND AGRI- CULTURE	Food	Scale up adaptation and resil- ience activities	159 countries	Not a signatory. A probable concern could be that the declaration calls for revisiting agriculture policies to reduce greenhouse gas, re- stricting small and marginal farmers, threatening food se- curity		
COALITION FOR HIGH AMBITION MULTI-LEV- EL PARTNERSHIPS FOR CLIMATE ACTION	Climate action	Planning, financing, and mon- itoring climate strategies to further enhance Nationally De- termined Contributions (NDCs) ahead of COP30	71 countries	Not a signatory. The declaration calling for targets and actions for emissions mitiga- tion to enhance NDCs could be a cause of concern		
UAE LEADERS' DECLA- RATION ON A GLOB- AL CLIMATE FINANCE FRAMEWORK	Finance	Ensuring climate finance is avail- able, affordable, and accessible	14 countries	A signatory		
JOINT DECLARATION ON OCEAN AND CLI- MATE ACTION	Ocean	Sustainably manage 100 per cent of their national ocean ju- risdictions, adopt ocean-based action in national climate goals	18 countries and the General Secretariat of the Organization of American States	Not a signatory; rea- son unclear		
CLIMATE CLUB	Industry	Decarbonisation of industries, access to finance to developing countries	35 countries + EU	Not a signatory. De- veloping countries still need to industri- alise and decarboni- sation could increase the cost		

### 4. That Lonely Feeling

Loneliness is defined in psychology as a subjective lack of social connections, distinct from being alone. It can be triggered by social isolation or dissatisfaction with the quality of relationships. The World Health Organization (WHO) designated loneliness as a priority public health problem, establishing a Commission on Social Connection in November.

However, their is a knowledge gaps, particularly in measuring loneliness, with inconsistencies in self-reported measures and cultural variations. According to 2023 global study by Meta and Gallup, revealing that nearly a quarter of the world's population and 30% in India report feeling lonely.

The study emphasizes the need for validated tools to measure loneliness effectively. The article mentions language and cultural differences, as some languages in India lack a translation for loneliness, hindering accurate articulation and intervention development. The UCLA Loneliness Scale, a widely used tool, has limitations in distinguishing between short-term and long-term loneliness and lacks cultural context, making it unsuitable for many countries.

Loneliness contributes to various health issues, including a **30%** increase in cardiovascular disease risk, a **98% increase in type-2 diabetes risk,** and a **14 times higher likelihood** of depression. The COVID-19 pandemic exacerbated loneliness due to altered social connection patterns.

The article highlights data disparities, indicating that most low- and middle-income countries lack nationally representative information on loneliness. The challenges faced by such countries, including India, differ from wealthy nations due to factors like high poverty, income inequality, and rapid urbanization. National prevalence data in India is mostly available for older adults, leaving a gap in understanding loneliness among adolescents and young adults.

Several studies explore factors driving loneliness, such as work-related conditions and food security. Adverse working conditions, exposure to noxious substances, and limited food choice contribute to higher loneliness levels. Urbanization is linked to increased loneliness due to heightened privacy and seclusion.

The UK and Japan are notable for having dedicated ministries to address loneliness, with the UK pioneering initiatives like loneliness training for hospital receptionists and a **"Happy Cab"** service. Japan enacted legislation to combat loneliness, emphasizing local councils to assist socially isolated individuals. Denmark and the US also have national programs addressing loneliness.

In India, there is a lack of policies targeting loneliness, as highlighted in the National Mental Health Survey. The existing policies for older adults briefly mention loneliness, emphasizing volunteer assistance for those confined to their homes.

The article stresses the need for longitudinal studies in India to track participants over time and develop effective interventions. The WHO's Commission on Social Connection, expected to release its first report by mid-2025, aims to identify lasting interventions for loneliness. The article concludes by noting the potential impact of the commission's findings on various stakeholders, including physicians, organizations, social workers, and policymakers.

### 5. Fight for land

In Uttarakhand, protests have erupted against the large-scale sale of agricultural land to outsiders, alleging that relaxed land laws since the state's formation in 2000 have jeopardized the region's culture and identity. Currently, **Uttarakhand is the sole Himalayan state permitting the sale of agricultural land to non-residents,** raising concerns due to only **14%** of the state being designated as agricultural land. Land records have not been updated since the 1960s, adding to the complexity. Attempts to address the issue have seen regulations gradually eased, allowing extensive purchases for non-agricultural purposes.

In 2003, the state's first government attempted to address the issue by amending Section 154 of the Uttaranchal (The Uttar Pradesh Zamindari Abolition and Land Reforms Act, 1950) Act. This allowed outsiders to buy agricultural land of up to 500 sq m only for farming purposes. In 2008, the cap was reduced to 250 sq m.

The 2018 amendment, lifting the cap on land purchases, led to significant acquisitions for resorts and industries. Critics argue that the broadened definition of "industrial purpose" has further facilitated this trend. The population surge in Uttarakhand since 2000 has intensified the problem, prompting protesters to demand a review of domicile requirements, restricting benefits to original settlers until 1950. Currently, domicile status is granted to those residing in the state for 15 years, contributing to the influx of around four million migrants since 2000.

Protesters emphasize the cultural significance of land, expressing concerns that losing it could lead to displacement and a disconnection from their cultural roots. The government, in response to the protests, has imposed an interim ban on the purchase of new agricultural land by outsiders, awaiting recommendations from an ongoing Law Land Committee. The protesters seek stringent land laws to safeguard their cultural heritage.

### 6. Silent Famine

Over the last 50 years, India's rapid adoption of high-yielding rice and wheat varieties aimed at achieving food security has led to an unintended consequence—diminishing nutritional content and an increase in toxins. A study by the Indian Council of Agricultural Research (ICAR) reveals alarming projections, warning that by 2040, staple grains may exacerbate the country's non-communicable diseases burden.

### **Nutrient Depletion and Toxic Accumulation:**

The ICAR study evaluated landmark high-yielding rice and wheat cultivars grown between 2018 and 2020. Findings indicate that these grains, constituting over 50% of daily energy intake, have lost up to **45%** of their nutritional value over the past five decades. Moreover, toxic elements such as arsenic in rice have surged by 1,493%, posing health risks.

### Impact on Public Health:

The altered nutrient profiles of rice and wheat, crucial for growth and disease prevention, raise concerns about higher incidences of diseases related to neurological, reproductive, and musculoskeletal systems. The study correlates this "historical shift" with India's rising burden of non-communicable diseases, indicating a potential link between nutrient-deficient grains and health issues.

### **Global Context:**

The phenomenon is not unique to India. Similar studies worldwide report declines in nutrition levels in food grains following the adoption of high-yielding varieties. Historical experiments, such as the Broadbalk Wheat Experiment in the UK, reveal significant decreases in mineral concentrations coinciding with the introduction of semi-dwarf, high-yielding cultivars.

### **Green Revolution Impact on Nutritional Security:**

While the Green Revolution initially aimed at food security, its unintended consequences, including soil degradation and surface water pollution, have now extended to nutritional security. The ICAR study suggests that modern breeding programs, focused on enhancing yield, have inadvertently compromised the nutrient-loading capacity of crops, impacting overall food quality.

### **Reasons Behind Nutrient Depletion:**

The shift from traditional landraces, with rich nutritional content, to high-yielding cultivars during the Green Revolution is identified as a key factor. Plant genetics have been manipulated to favor yield over nutritional value, resulting in a loss of inherent regulatory mechanisms for balanced nutrient uptake. This genetic exclusion of traits has contributed to the diminishing capacity of plants to sequester essential nutrients like zinc and iron.

### Efforts to Address the Issue:

In response to the alarming findings, India is undertaking efforts to improve the nutritional profile of food grains. A biofortification project, focusing on exploring landraces and wild species for nutrientrich traits, has been initiated. However, the adoption of biofortified varieties by farmers remains a challenge, with only 6% of the country's total farming area currently under such varieties.

### **Challenges and Future Prospects:**

The slow adoption of biofortified varieties is attributed to challenges like convincing farmers to switch cultivars and ensuring seed availability. While progress has been made in biofortification of zinc, iron, and protein, efforts to fortify other essential elements like manganese, copper, and calcium are ongoing. Scientists emphasize the need for an integrated breeding process and mainstreaming nutrition alongside yield in agricultural agendas.

Finally, India's pursuit of food security through the Green Revolution has inadvertently led to a "silent famine" characterized by nutrient-depleted staple grains and increased toxic elements. The ICAR study serves as a wake-up call, urging a shift in agricultural priorities towards both yield and nutritional value. As the country grapples with a growing burden of non-communicable diseases, addressing the nutritional inadequacy of staple foods becomes paramount for public health and well-being.

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