

Monthly

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# Current Affairs

March 2024



Cross Voting in Rajya Sabha



Financial Inclusion of Women: NHFS Data



Balochistan: Iranian & Pakistani Province

Insurgency in Balochistan



Food Storage Infrastructure

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## INDIAN POLITY

## Model Code of Conduct

## SOURCE: THE HINDU

## PRIORITY: HIGH

The Chief Election Commissioner of India urged all political parties to follow the Model Code of Conduct (MCC), which outlines rules for leaders and parties during elections.

**What is Model Code of Conduct?**

- The **Model Code of Conduct** is a set of guidelines issued by the Election Commission of India for the conduct of political parties and candidates during elections.

**Origin and Purpose**

- **Kerala** was the **first state to adopt a code of conduct for elections**. In 1960, before the Assembly elections in the state, the administration prepared a draft code covering important aspects of electioneering such as processions, political rallies, and speeches.
- **In 1974, the ECI released a formal MCC**. It also set up bureaucratic bodies at the district level to oversee its implementation. **Before 1977, MCC guided only political parties and candidates**.
- In 1979, the Election Commission learned of **ruling parties misusing power** like monopolising public spaces and using public money for advertisement. The **Election Commission revised MCC to include ruling political parties**.

**Objective and Implementation**

- It is a set of norms which deal with matters including speeches, meetings, processions, election manifestos, polling and general conduct.
- The Model Code of Conduct comes into force immediately on the announcement of the election schedule and remains in force till the end of the electoral process
- It helps the EC in keeping with the mandate it has been given under **Article 324 of the Constitution**, which gives it the **power to supervise and conduct free and fair elections** to the Parliament and State Legislatures.
- The primary aim of the MCC is to facilitate fair campaigns, polling, and counting procedures.
- It acts as a safeguard against the misuse of state machinery and financial resources by the ruling party.
- While lacking statutory backing, the MCC has been upheld by the Supreme Court on numerous occasions.

**Prohibited Activities under the Model Code of Conduct****Announcements and Initiatives**

- Ministers and authorities are prohibited from announcing financial grants or making commitments after election announcements.
- Foundation stone laying or project initiation is restricted once Lok Sabha election dates are announced, except by civil servants.
- Projects or schemes favoring the ruling party cannot be announced post-MCC enforcement.

**Campaigning and Official Machinery**

- Ministers must refrain from using official machinery for campaign purposes.
- Official visits should not involve electioneering activities or the utilization of official machinery.
- The use of official machinery or personnel for election campaigns is strictly forbidden.

**Financial Discretion and Accommodations**

- Sanctioning grants or payments from discretionary funds is prohibited post-election announcements.
- Government accommodations should not be utilized as campaign offices or for holding public meetings for election propaganda.

#### Advertisements and Media Coverage

- The issuance of advertisements at the public exchequer's cost in newspapers and media during elections is prohibited.
- Misuse of official mass media for partisan coverage or publicity favoring the ruling party is strictly discouraged according to MCC guidelines.

#### Enforceability of MCC:

- Though the **MCC does not have any statutory backing**, it has come to acquire strength in the past decade because of its strict enforcement by the EC.
- Certain provisions of the MCC may be enforced by invoking corresponding provisions in other statutes such as the **Indian Penal Code (IPC) 1860, Code of Criminal Procedure (CrPC) 1973, and Representation of Peoples's Act (RPA) 1951.**

#### Notable Instances and Controversies

- Over the years, there have been several instances of MCC violations by political parties and candidates. Some notable cases include:
- In the 2019 Lok Sabha elections, the EC issued a notice to Prime Minister Narendra Modi for his remarks about former Prime Minister Rajiv Gandhi.
- During the 2014 Lok Sabha elections, the EC ordered the removal of billboards and hoardings featuring the then-Chief Minister of Tamil Nadu, J. Jayalalithaa, as they violated the MCC.
- In 2017, the EC censured Delhi Chief Minister Arvind Kejriwal for his remarks about bribery during the Goa Assembly elections.

#### What are the Issues Associated with MCC?

- **Inadequate Coverage of Modern Electoral Challenges:** Lack of provisions for paid news, fake news, and social media influence.
- **Lack of Statutory Backing:** Issues with enforceability due to non-legal status.
- **Selective Implementation:** Inconsistencies in application among different political entities.
- **Calls for Legal Status:** Proposals to make MCC legally binding to enhance effectiveness and uniformity.
- **Enforcement Challenges:** Enforcement of the MCC can be inconsistent or inadequate, leading to violations that may go unpunished **due to lack of statutory backing.**
- **Timing Issues:** The MCC comes into effect **only during election periods**, leaving room for misconduct outside of these periods.
- **Impact on Governance:** Some argue that the MCC's restrictions on government announcements and activities during election periods may hinder the functioning of governance.

#### Way Forward

- **Expanding Scope to Meet New-age Needs:** The coverage of the MCC is to be broadened to include modern issues such as digital campaigning and transparency in electoral funding.
- **Legalizing the MCC:** The recommendations made by the Dinesh Goswami Committee on Electoral Reforms (1990) to provide statutory backing and make the MCC enforceable through law are should be considered. The integration of the MCC into the Representation of the People Act, 1951, as

suggested by the 2013 Standing Committee on Personnel, Public Grievances, Law, and Justice, is to be considered.

- **Continuous Review and Adaptation:** A framework for regular assessment, review, and updating of the MCC to respond to evolving electoral dynamics and challenges should be established.
- **Public Awareness Campaigns:** Educational campaigns should be initiated to inform voters, political parties, and candidates about the importance of MCC compliance and its role in ensuring fair elections.

### Citizenship (Amendment) Act(CAA)?

**SOURCE: THE HINDU**

**PRIORITY: HIGH**

#### Context:

The Central government notified the rules for the Citizenship (Amendment) Act(CAA), 2019 on Mar 13th, 2024 which was passed by the parliament of India in December 2019.

#### What is the Citizenship (Amendment) Act(CAA) 2019?

- Citizenship Amendment Act, 2019 amended the **Citizenship Act of 1955**.
- CAA grants Citizenship to illegal migrants who are **Hindus, Sikhs, Buddhists, Jains, Parsis and Christians** from **Afghanistan, Bangladesh and Pakistan**.
- The citizenship will be granted to those who entered India from these countries on or before December 31, 2014.

#### Who are illegal migrants?

- Illegal immigrant is an immigrant who has entered India without valid travel documents or stayed beyond the permitted time, potentially facing prosecution, deportation, or imprisonment.

#### Age Relaxation:

- The amendment relaxed the residency requirement **from 11 years to 6 years** for these communities to acquire Indian citizenship by naturalization.

#### Exemption

- It exempts members of communities from prosecution under the **Foreigners Act of 1946 and the Passport Act of 1920**.

#### Exception:

- The amendments for illegal migrants will not apply
  - Tribal areas under Sixth Schedule in **Assam, Meghalaya, Mizoram, and Tripura**,
  - states regulated by the **"Inner Line" permit** under the **Bengal Eastern Frontier Regulations 1873**.

#### Other Important Provisions

##### No Requirement Of Valid Passport

- 'The rules have done away with the earlier mandatory requirement of passport of Pakistan, Bangladesh or Afghanistan and a residential permit issued by India.

##### No Requirement Of Visa

- The rules have removed the mandatory requirement of Visa and have provided that even a certificate issued by an elected member of a local body would be sufficient.

##### No Requirement Of Language Certificate

- 'The rules have done away with the requirement of producing a certificate from an educational institution that the applicant knows one of the languages mentioned in the Eighth Schedule of the

Constitution. According to the new rules, just a declaration to that effect and being able to speak the language will be enough.

#### **Proof Of Entry Into India Before December 31, 2014**

- 'The rules provide that any one of the listed 20 documents provided in the rules would be admissible.

#### **Limited Powers Of State Governments**

- 'The rules tweak the process of grant of citizenship in a manner that state governments would have limited participation in the process. The new rules provide for an empowered committee to be instituted by the Centre for receiving and processing the applications.

#### **Arguments in favor of the Citizenship Amendment Act 2019:**

- **Dignified life for refugees:** The CAA would help to remove legal barriers to rehabilitation and citizenship, offering refugees a dignified life after decades of suffering.
- **Protection of Rights:** Citizenship rights under the CAA would safeguard the cultural, linguistic, and social identity of refugees, while also ensuring their economic, commercial, free movement, and property purchase rights.
- **Relief to victims of Partition:** The CAA provides relief to victims of partition who faced religious persecutions after Pakistan, Bangladesh, and Afghanistan became theocratic Islamic republics.

#### **Arguments against the Citizenship Amendment Act 2019:**

- **Against the right to equality:** Critics argue that using religion as a qualifier violates the fundamental right to equality granted by Article 14 of the constitution.
- **Violation of Secularism:** Making religion a ground for eligibility for citizenship goes against secularism, a basic feature of the Constitution. citizenship shouldn't depend on faith, as it opposes the core principles of equality and non-discrimination in the Constitution.
- **Discriminatory towards Muslims:** The combination of the National Register of Citizens (NRC) and the CAA, which excludes Muslims, has been criticized for targeting Muslims.
- **Exclusion of other persecuted minority groups:** The Act excludes other persecuted minority groups like Tamil Hindus in Sri Lanka, Rohingya in Myanmar, or minority Muslim sects like Ahmadiyyas and Hazaras in Pakistan and Afghanistan.
- **North-Eastern States concerns:** North-eastern states fear that illegal migrants under the CAA could threaten their cultural and linguistic identity and strain resources and economic opportunities.
- **Violation of Assam Accord:** Protests in Assam cite the violation of the Assam Accord by extending the cut-off date for citizenship to illegal migrants, extending it to December 31, 2014, from the original March 25, 1971.
- **Excessive discretion to government:** The Act grants wide discretionary powers to the central government regarding the cancellation of OCI registration.

#### **Effects**

- It may create new demand for regularization of citizenship of LTTE victims of Sri Lanka who migrated to India.
- The Ahmadiyya community and the community like "Dawoodi Bohras" are also demanding the same on the grounds of persecution in these countries.
- The UN called it discriminatory however it acknowledged the government of India's effort to grant citizenship to stateless people.

- States like Kerala and West Bengal have denied implementing it this raises a question on the federal polity.
- The people of Assam have started agitation against it as they fear massive influx of Bengali speaking population may lead to a cultural suppression of the indigenous population.

#### Background and Legal provisions of the Citizenship (Amendment) Act(CAA), 2019:

- The Nehru-Liaquat Pact also known as the Delhi Pact and the Agreement of Non-Aggression.
- The Nehru-Liaquat Pact was a bilateral agreement between the state of India and the dominion of Pakistan to provide a framework for the protection of the interest, wealth and treatment of minorities in their countries on the following grounds
  - a. Security of life, property, and honor of their respective minorities.
  - b. Equality of rights and opportunities in their respective countries.
  - c. Non-Discrimination on the grounds of religion, race, caste, or creed, and to promote a sense of security among minority communities.
  - d. Repatriation of Minorities:
  - e. Cultural and Educational Rights:
- It was signed between Jawaharlal Nehru, the Prime Minister of India and the Prime Minister of Pakistan, Liaquat Ali Khan, on April 8, 1950.
- The government of India projected the following factors responsible for the legislation:-
  - a. The Pakistan Human Rights Commission in a report revealed an annual abduction of more than 1000 minor minority girls and compelled them to marry much older individuals and change their religion.
  - b. Reduction of the minority population in these areas from 25% to a population of merely less than 3%.
  - c. Massive Influx of these persecuted people in India who are compelled to live in very tough circumstances due to lack of citizenship.
  - d. The misuse of Section 295 C of the Pakistan penal code which provides for a capital punishment for blasphemy and minorities are most affected by it.
  - e. The Government of Pakistan has not honored the "The Nehru-Liaquat Pact of 1950" in letter and spirit.
- India has not signed the UN agreement on refugees or the "the Geneva Convention 1951"
- Lack of proper definition of refugee.
- The bill has been extensively argued in the light of Article 14, Article 25 and Article 21 of the Constitution of India.
- The basic structure doctrine has also been the central point of discussion under this law.

#### Way forward

- **Addressing Insecurity Among the Minority Population:** The sense of insecurity among the minority population resulting from the sequence of NRC, NPR, and CAA needs to be acknowledged and addressed effectively.
- **Establishing Communication Channels:** A dedicated channel for communication should be opened to hear and address the grievances of those affected by the new policies.
- **Formation of a Special Tribunal:** A special tribunal should be constituted to safeguard the interests and rights of all concerned parties in light of the new citizenship rules.

#### Cross Voting in the Rajya Sabha

**Context:**

Recent Rajya Sabha elections in Uttar Pradesh, Himachal Pradesh, and Karnataka have witnessed cross-voting incidents. These instances have sparked concerns about the integrity and sanctity of the electoral process for Rajya Sabha seats.

**Rajya Sabha Elections Procedure**

- **Article 80** of the Constitution mandates the indirect election of Rajya Sabha representatives by the elected members of State Legislative Assemblies.
- Elections are held only if the number of candidates exceeds the vacancies.

**Understanding Cross Voting**

- It refers to MLAs voting against their party's directive or for candidates from other parties.
- It challenges the democratic principle of party discipline and cohesive decision-making.
- **It distorts the representative process**, questioning the adherence to party mandates or ideologies.

**Legal Provisions and precedents**

- **Open Ballot System:** An amendment to the Representation of the People Act, 1951 in 2003 introduced open ballot voting for Rajya Sabha elections, aimed at curbing cross-voting.
- **Tenth Schedule (Anti-Defection Law):** Introduced in 1985, this Schedule disqualifies legislators who voluntarily give up party membership or vote against party instructions. However, it does not apply to Rajya Sabha elections.
- **Court Rulings:** The Supreme Court, in cases such as **Kuldip Nayar versus Union of India (2006)**, upheld the open ballot system while clarifying that voting against party candidates in Rajya Sabha elections does not invoke disqualification under the Tenth Schedule.

**HOW BJP WON 10 OF 15 SEATS**

56 Rajya Sabha seats fall vacant in April. Elections were held for 15 seats in 3 states; MPs elected unopposed in others

|                                                                                                                                                                                                                                                                                  |                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p><b>&gt; KARNATAKA   RS seats: 4</b><br/> <b>Cong 3, BJP 1</b><br/>         One BJP MLA votes for Cong's Maken while another abstains</p>                                                                                                                                      |  |
| <p><b>&gt; UTTAR PRADESH   10</b><br/> <b>BJP 8, SP 2</b><br/>         SP chief whip and key aide of party chief Akhilesh Yadav Manoj Pandey quits while polling is on, amid reports of cross-voting by 6 SP MLAs. Akhilesh warns of strict action against cross-voting MLAs</p> |                                                                                      |
| <p><b>&gt; HIMACHAL   1 seat; BJP 1</b><br/>         Cong's Abhishek Singhvi loses to BJP's Harsh Mahajan (pic). CM claims 4-5 Cong MLAs were 'abducted', Amit Shah rubbishes allegation</p>                                                                                     |                                                                                      |

- **Kihoto Hollohan vs Zachillhu (1992):** The Supreme Court held that judicial review cannot be available prior to the making of a decision by the Speaker nor at an interlocutory stage of the proceeding.
- **Ravi S. Naik vs Union of India (1994):** The Supreme Court had said "an inference can be drawn from the conduct of a member that he has voluntarily given up the membership of the party to which he belongs."
- **Nabam Rebia vs Deputy Speaker (2016):** The Supreme Court said that the Speaker shall not decide the disqualification cases till the no-confidence motion against him is disposed of.
- **Girish Chodankar vs The Speaker, Goa State Legislative Assembly (2021):** The Bombay High Court held that the merger of two-thirds of Members of the Legislative Assembly is deemed to be the merger of the original party. (An Appeal has been filed in the Supreme Court.)

### Measures to Prevent Cross Voting

- **Visible Vote:** Under the open ballot system, MLAs must show their completed ballot papers to an authorized agent of their party before casting them. This visibility ensures that votes are cast in accordance with party directives.

### Recent Trends in Manipulating Defections

**Pre-Defection Tactics:** Potential defectors often submit a no-confidence letter against the Speaker before defecting, citing the Nabam Rebia Judgment for justification.

**Speaker's Bias:** Criticism has been leveled against the Speaker's office for perceived lack of political neutrality. Speakers, typically from the ruling party, may delay or expedite decisions on disqualification based on the defector's new affiliation, impacting opposition and ruling party defectors differently.

**Election Commission and Party Symbols:** Defectors may petition the Election Commission of India (ECI) to be recognized as the true party, seeking the party symbol. The ECI often employs the legislative majority test, allowing a significant number of defectors to split the party.

**Engineered Resignations:** Opposition parties may orchestrate resignations within the ruling party, promising defectors lucrative positions in the new government.

### Possible Measures

**Amend the Tenth Schedule:** The Tenth Schedule should be amended, requiring any legislator changing party affiliation to resign from the House and seek re-election.

**Prohibit Ministership Without Re-Election:** Defectors should be barred from holding ministerial positions without being re-elected, discouraging opportunistic defection for personal gain.

**Role of the Speaker:** Consider amending the law to mitigate bias displayed by Speakers. Some experts advocate for decisions to be made by the ECI rather than the Speaker.

**Selection of Speaker:** Establish a new convention where all political parties agree on a speaker before elections through consensus, ensuring impartiality and trust in the Speaker's role.

### Conclusion

- Cross-voting challenges the fairness and integrity of Rajya Sabha elections, calling for a re-evaluation of legal and regulatory frameworks.
- Strengthening deterrents against cross-voting and reinforcing the principles of democratic elections may require further legislative and judicial efforts.

### Open Book Examination (OBE)

**SOURCE: THE HINDU**

**PRIORITY: HIGH**

#### Context:

The CBSE has decided to conduct a pilot comprehensive study to assess the viability of implementing Open Book Exam (OBE) for students from classes 9 to 12.

#### What is Open Book Examination?

Open Book Examination (OBE) is an assessment method where students are permitted to refer to their textbooks, notes, or other authorized study materials during the examination.

#### There are two types:

- **Restricted Open Book Assessment:** Students are allowed to refer only to the study materials approved by the exam-conducting authority.
- **Free-type Open Book Assessment:** Students can bring any material of their choice for reference.

#### History of OBE in India

- In 2014, CBSE introduced Open Text Based Assessment (OBTA) for Class 9 and Class 11 subjects to reduce the emphasis on rote memorization and promote critical thinking.
- However, it was discontinued in 2017-18 due to its failure to develop critical thinking skills. In 2019, AICTE permitted open book exams in engineering colleges following a recommendation from an advisory body.
- During the COVID-19 pandemic, various Central Universities like DU, JNU, AMU, and IITs conducted open book tests to evaluate students.

#### CBSE's Proposal for Open Book Examination: Rationale

- **Transformation of Culture of assessment in line with NEP 2020:** The National Education Policy 2020 has recommended implementation of various modes of exams for the benefit of students. CBSE is exploring Open Book Examination (OBE) as an alternative for regular exams.
- **On the lines of National Curriculum Framework:** The CBSE has proposed this form of assessment based on the National Curriculum Framework (NCF) released last year. The National Curriculum Framework for School Education has highlighted the need to reform the current assessment process, which is 'focused on measuring rote learning'.

#### Advantages of Open Book Examination (OBE) in India

- **Shift from Rote Learning to Conceptual Understanding:** OBE encourages students to focus on core concepts and high-order thinking skills rather than memorization.
- **Promotion of Critical and Creative Thinking:** OBE assesses learners' ability to apply course content to real-life scenarios, analyze case studies, and connect concepts with real-world situations.
- **Prevention of Proliferation of Coaching Industry:** OBE discourages reliance on coaching for exam preparation, reducing the burden on students and parents.
- **Encourages Resource Management Skills:** Students develop efficient navigation and use of reference materials, essential for academic and professional success.
- **Reduction in Examination-related Stress:** OBE has been found to be less stressful for students, potentially reducing cases of student suicides.

#### Way Forward

- **Implementation of Yash Pal Committee Report:** Recommendations from the Yash Pal Committee's "Learning Without Burden" report, including reducing exam burden and introducing OBEs, should be implemented.
- **Development of Critical Pedagogy:** Teachers should focus on meaningful dialogue with students and prioritize learning outcomes over syllabus completion.
- **Training of Students:** Students need training on how to effectively utilize OBEs and develop analytical skills to derive maximum benefits.
- **Training of Teachers:** Teachers should receive training on formulating comprehensive, unique questions suitable for OBEs, moving away from traditional exam formats.

#### Issues With The Judges Joining Politics

**SOURCE: INDIAN EXPRESS**

**PRIORITY: HIGH**

#### Context:

A sitting Judge of Calcutta High Court resigned from his office and joined a political party. Concerns are being raised about the impact on impartiality of the Judiciary. A senior IPS officer in West Bengal resigning from their posts and joining political parties, has raised questions of propriety about independent constitutional authorities like Judges and bureaucrats.

#### What are the Legal/Constitutional provisions regarding Judges joining politics?

- Currently, there is no legislation in India for regulating the judicial conduct of judges of Constitutional courts.
- They are not legally barred from occupying executive posts.

### Examples

**1952:** Appointment of Justice Fazl Ali as the Governor of Orissa, shortly after his retirement from the Supreme Court.

**1958:** Resignation of Chief Justice of Bombay High Court M C Chagla in order to become India's Ambassador to the US.

**1967:** Resignation of Chief Justice of India Koka Subba Rao to contest elections for President.

**1983:** Resignation of Supreme Court judge Baharul Islam to contest the Lok Sabha polls from Assam.

**2002:** Appointment of former CAG T N Chaturvedi as the Governor of Karnataka.

**2004:** Nomination of Former Chief Election commissioner M.S. Gill as the member of Rajya Sabha and appointment as minister.

**2020:** Nomination of Former CJI Ranjan Gogoi to Rajya Sabha within four months after his retirement.

### What are the Constitutional restrictions preventing post retirement benefits?

**Article 124(7):** A judge of a Supreme Court after ceasing to hold office cannot appear as a lawyer before any court or authority in India.

**Article 220:** A judge of a High Court after ceasing to hold office cannot plead or act in any court or before any authority in India except the Supreme Court and the other High Courts.

**Article 148(4):** The Comptroller and Auditor-General shall not be eligible for further office either under the Government of India or under the Government of any State after he has ceased to hold his office.

**Article 319:** Chairman and members of the Union Public Service Commission shall be ineligible for further employment either under the Government of India or under the Government of a State.

### What are the issues with Judges and Bureaucrats Joining Politics?

- **Breach of oath** – According to Third Schedule of the Constitution a constitutional authority (like judges, CAG) requires to swear that he/she will perform his duties without fear or favour, affection or ill-will. Joining political parties for electoral office raises questions over impartiality and propriety.
- **Undermines independence of Constitutional Positions**– eg Fears of politically biased judgement and actions in return for favours from political executives.
- **Dichotomy in application of 'Cooling-off Period'** – CCS Rules ([Rule 10 (1)] for Central Service Group 'A') prescribe a 'cooling off' period for senior bureaucrats before joining a private job after retirement. However, the lack of 'cooling-off' period before joining politics, points to an inherent dichotomy.
- **Violation Of Bangalore Principles of Judicial Conduct (2002)** – The declaration enlists certain judicial values including independence, impartiality, integrity and propriety. Post-retirement, joining of political parties is a violation of Bangalore principles of Judicial Conduct.
- **Breach of public trust** – The Supreme Court in All India Judges' Association v. Union of India (1991) and C. Ravichandran Iyer v. Justice A.M. Bhattacharjee (1995) held that post-retirement benefits enjoyed by the judges is a breach of public trust.

### Way Forward

- **Legislation Prescribing a Two-Year 'Cooling Off Period':** As recommended by the Supreme Court, Parliament should enact legislation mandating a cooling-off period of at least two years for retired bureaucrats before they join political parties or assume political positions appointed by the government.

- **Increasing the Retirement Age of Judges:** Raising the retirement age of judges from 60 to 70 would mitigate the risk of conflicts of interest arising from post-retirement employment opportunities.
- **Prescribing Conditions for Appointment in Tribunals:** **Criteria** such as expertise in constitutional matters or public interest litigation, years of legal practice, research proficiency, and experience serving on benches handling similar cases should be established before appointing retired judges to tribunals or similar positions.
- **Self-Regulation for Constitutional Position Holders:** Encouraging self-regulation among individuals occupying constitutional positions would be pivotal. Examples like Retired Justices Chelameswar and Kurian Joseph, and Former Chief Justices Kapadia, Lodha, and Thakur, who have declined post-retirement involvement in politics or political appointments, serve as positive models for others to follow.

### India Burgeoning Death Penalty Crisis

**SOURCE: THE HINDU**

**PRIORITY: MEDIUM**

#### Context:

This topic is in the news due to the concerning rise in India's death row population and the unprecedented number of acquittals by the Supreme Court in 2023.

#### About Death Penalty:

- Death Penalty can be defined as the lawful infliction of death as a punishment for a wrongful act, such as **Heinous murder (section 302 of the Indian Penal Code)**.
- The death penalty aims to deter individuals from committing serious crimes by instilling fear of consequences.
- It applies to severe offenses like **murder, rape, and rape with murder**, which have a profound impact on society.
- In India, **hanging is the primary method of execution** for the death penalty, as outlined in Section 354(5) of the Criminal Code of Procedure, 1973.
- In 2022, trial courts in India imposed 165 death sentences, the highest in two decades, according to the **Death Penalty in India (2022) report**.
  - **The report is published by Project 39A**, a New Delhi-based advocacy group for criminal law reforms.
  - **Inspired by Article 39A** of the Indian Constitution, Project 39A seeks to provide **free legal aid to the underprivileged and ensure justice for all**.

#### Recent Statistics and Trends:

- **Low Confirmation Rates:** According to the "Death Penalty in India: Annual Statistics 2022" report, the **Supreme Court confirmed only 7 death sentences between 2007 and 2022**.
- All sentences imposed in 2023 were either set aside or commuted to life imprisonment.
- **Disposal of death penalty confirmation** proceedings at the High Courts **decreased by 15% in 2023**, with 57 cases disposed of compared to 68 in 2022.
- **High Death Row Population:** Despite the low confirmation rate, India's death row population has seen a significant increase.
- By the end of 2023, there were 561 prisoners on death row, a 45.71% increase compared to 2016.
- This rise can be partly attributed to a surge in death sentences imposed by trial courts, with 165 awarded in 2022, the highest in over two decades.
- **Majority of death penalty cases** in trial courts were related to sexual offenses, with over 50% of the **120 sentences for homicidal rapes**.

### Key Supreme Court Judgments on Death Penalty in India:

- **Jagmohan Singh vs State of Uttar Pradesh (1972):** Upheld the death penalty in India.
- **Rajendra Prasad vs State of Uttar Pradesh (1979):** Stated that the death penalty directly affects the **right to life guaranteed under Article 21** of the Constitution.
  - **Imposing the death penalty requires:** Recording special reasons and Imposing it only in extraordinary circumstances.
- **Bachan Singh vs State of Punjab (1980):** Upheld the death penalty but limited it to the '**rarest of rare cases.**'
- **Deena Dayal vs Union of India And Others (1983):** Upheld the death penalty, emphasizing that **hanging should be painless** and cause no greater pain than any other known method.

### Arguments in Favor of the Death Penalty:

- **Retribution:** Death penalty is viewed as a fair punishment for murderers, providing a sense of justice to society. The death penalty fulfills the need for ultimate retributive justice.
- **Deterrence:** Death penalty serves as a powerful deterrent to potential criminals, especially for those considering serious offenses like murder.
- **Protecting National Security:** Some actions, such as waging war against the State and engaging in terrorism, pose serious threats to our national security. These acts endanger the safety and well-being of its citizens.
- For example, **Ajmal Kasab received the death sentence** for his role in the 26/11 Mumbai attacks.
- **Prevention of Re-offending:** Death penalty permanently eliminates the possibility of dangerous criminals escaping and committing further crimes.
- **Utilitarianism:** It suggests that the overall well-being of society outweighs the loss of life of the criminal.
- **Closure for Victims' Families:** Some families of victims feel that the execution of the perpetrator brings a sense of closure and justice.
- For instance, The *Vinay Sharma v. the Union of India* (2020) case, also famously known as the **Nirbhaya gang-rape case**, had shocked the conscience of the whole country, such acts deserves nothing except death penalty.
- **Least Humane Method:** Among execution methods, the death penalty is perceived as the least common and **not excessively harsh or inhumane.**

### Arguments Against the Death Penalty:

- **Irreversibility and Potential Miscarriage of Justice:** There's always a risk of executing an innocent person. No justice system is perfect, and wrongful convictions can occur.
- **Violation of Right to Life:** Death penalty violates the fundamental right to life guaranteed by the **Indian Constitution under article 21.**
- **Cruel and Unusual Punishment:** Death penalty to be inherently cruel and inhumane, regardless of the crime committed.
- Death row prisoners **endure constant psychological distress** and live with the looming fear of execution.
- **Scope for Reform:** Life imprisonment allows for the possibility of rehabilitation, which the death penalty does not offer.
- **No Proven Deterrent Effect:** Studies have shown that the death penalty does not have a stronger deterrent effect on crime than life imprisonment.

- **Execution of Innocent:** Special or military courts established through **counter-terrorism laws** have wrongly sentenced civilians to death in some instances, **undermining international standards**.
- **Discriminatory:** Reports indicate that **approximately 76% of death penalty** convicts in India come from lower and backward castes, raising concerns about discriminatory application of the law.
- **Focus on Rehabilitation:** Focusing on rehabilitation within the prison system is a more just and humane approach that allows for the possibility of redemption.

#### Way forward

- **Alternatives to Capital Punishment:** Exploring alternative punishments, like life imprisonment with rigorous labor or enhanced focus on rehabilitation, can provide a different approach to achieving justice
- **Updated Guidelines:** The Supreme Court should issue updated guidelines on how to balance aggravating and mitigating factors in cases. This will minimize subjectivity in the imposition of death sentences and reduce instances of unwarranted capital punishment.
- **Swift Action on Mercy Petitions:** The Union Government should expedite the review of mercy petitions based on their merits, without being influenced by political considerations.
- **Abolition of death penalty:** The Law Commission in its 262nd report proposed that the death penalty should be abolished for all crimes excluding terrorism-related offences and war.

#### Conclusion

India's death penalty crisis demands a **bold and holistic approach** that goes beyond incremental changes in sentencing procedures. A thorough examination and potential reform of the entire system are crucial to ensure a fair, just, and humane criminal justice system.

#### UPSC Mains PYQs:

**Q1.** Instances of the President's delay in commuting death sentences has come under public debate as denial of justice. Should there be a time specified for the President to accept/reject such petitions? Analyse (2014)

#### AFSPA Extended in Nagaland and Arunachal Pradesh

**SOURCE: THE HINDU**

**PRIORITY: MEDIUM**

#### Why in the news:

The Union Ministry of Home Affairs (MHA) extended the Armed Forces (Special Powers) Act (AFSPA) in parts of Nagaland and Arunachal Pradesh for another six months.

#### Origin of AFSPA

- AFSPA is based on a 1942 British colonial ordinance that was intended to contain the Indian independence movement during World War II.
- In the wake of the partition riots, four ordinances were promulgated in 1947.
- These were replaced by a common legislation, the Armed Forces (Special Powers) Act, 1948.
- This was meant to be in force for one year, but was repealed only in 1957.
- But subsequently extended by an act of parliament –the Armed Forces (Assam and Manipur) Special Powers Act, 1958

#### Provisions of AFSPA

Armed Forces (Special Powers) Act, 1958 AF is an act of the Indian Parliament that grants special powers to the Indian Armed Forces. The act allows the armed forces to maintain public order in "disturbed areas".

#### AFSPA gives the army and the Central Armed Police Forces (CAPF) the power to:

- Kill anyone acting in contravention (violation) of the law
- Power to search, arrest and open fire if deemed necessary to maintain public order.

- Arrest people and search any premises without a warrant
- Protection from prosecution and legal suits without the Union government's sanction.

#### Which parts of the country come under AFSPA?

- Under this law, an area can be declared a 'disturbed area', bringing into play the protection it offers to the armed forces for use of force in the notified area.
- The notification is extended periodically, mostly for six months at a time.
- As of today, the whole of Assam and Nagaland, Manipur, with the exception of the Imphal municipal area, few districts of Arunachal Pradesh are notified as 'disturbed areas'.

#### Controversies Surrounding AFSPA:

- Allegations of human rights violations, including fake encounters and excessive use of force, have plagued AFSPA's implementation.
- Various committees and commissions, including the **Jeevan Reddy Committee** and the **Second Administrative Reforms Commission**, have recommended the repeal or amendment of AFSPA.

#### Supreme Court's Perspective:

- **Jeevan Reddy committee:** In 2005, a Government-appointed five-member committee headed by retired Supreme Court judge, B.P. Jeevan Reddy, recommended that AFSPA be repealed.
- It suggested that the Unlawful Activities (Prevention) Act could be suitably amended to deal with terrorism.
- Guidelines have been outlined to ensure minimal use of force and consultation with state governments before making declarations under AFSPA.

#### Reduced Application of AFSPA:

- In April 2022, the Center **reduced the number of disturbed areas under AFSPA in several parts of Nagaland, Assam and Manipur.**
- The Act was **lifted from Tripura in 2015, Meghalaya in 2018 and Mizoram in the 1980s.** Despite these cuts, AFSPA **remains in force in Jammu and Kashmir.**

#### Demands for Repeal:

- Many political parties, **NGOs and civil society organizations** in the **north-eastern region** are demanding **complete repeal of AFSPA.**
- Critics argue that **AFSPA violates human rights**, while **supporters claim it is necessary to maintain order in disturbed areas.**

#### Purpose of AFSPA Extension

- **Security Maintenance:** The extension aims to maintain security and combat insurgency, reflecting the necessity for continued military presence and special powers in designated areas.
- **Ongoing Concerns:** Indicates persistent concerns about the security situation, underscoring the need for special powers to address threats effectively.

#### Way Forward

- Calls for the government to reassess the application of AFSPA on a case-by-case basis and limit its scope to specific disturbing districts.
- Emphasis on adherence to guidelines set by the Supreme Court, Jeevan Reddy Committee, and National Human Rights Commission to prevent human rights violations.

#### Students Suicide In India

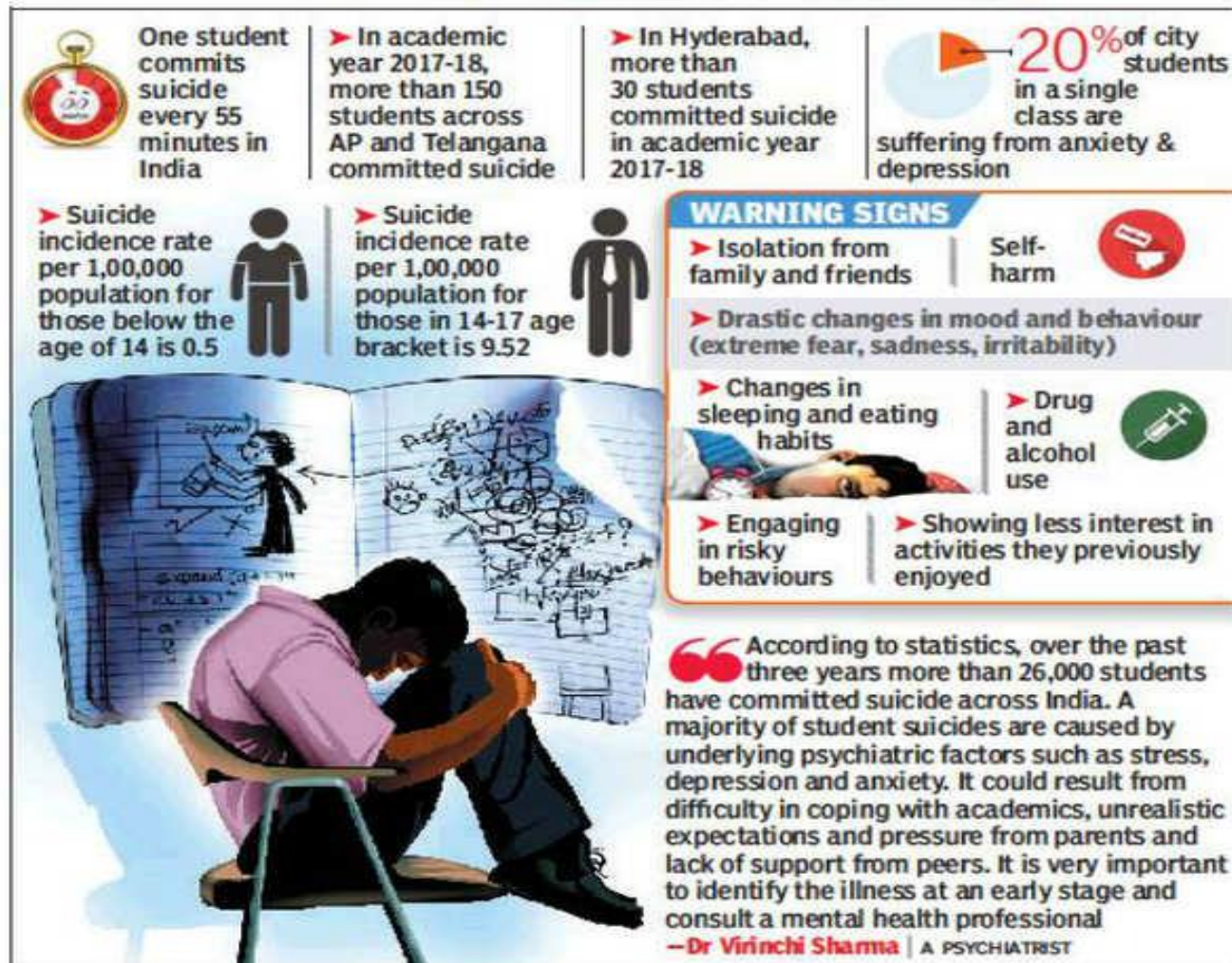
SOURCE: THE HINDU

PRIORITY: MEDIUM

### Why in the news:

The "Accidental Deaths and Suicides in India 2022" report published by the National Crime Records Bureau (NCRB) reveals a distressing trend: 13,044 Indian students took their own lives, accounting for 7.6% of all suicide deaths in the country for that year. This marked an increase from 10,335 in 2019 and 12,526 in 2020, with 13,089 reported in 2021. Notably, **Kota**, renowned as a premier coaching hub, witnessed 15 student suicides in 2022 alone.

## PRESSURE OF PERFECTION?



### Causes Behind the Surge in Student Suicides

**1. Pressure from the Education System:** The fierce competition for limited seats in government institutions, coupled with high fees in private entities, exerts enormous pressure on students. The National Crime Records Bureau (NCRB) report underscores this, highlighting the extreme steps students take under this stress.

**2. Financial Strain:** The **All India Survey on Higher Education (AISHE) 2019-20 report** points out that **only 21.4% of colleges** are government-run, leaving the majority (78.6%) under private management. The steep cost of tuition and coaching fees places a significant financial burden on families, translating to intense pressure on students to excel academically, often with dire consequences.

**3. Societal and Familial Expectations:** The clash between parental expectations and a student's own interests can lead to feelings of humiliation and desperation. This disconnect exacerbates the mental health challenges faced by students, sometimes with tragic outcomes.

### Kota's Coaching Industry: Measures to Combat Student Suicides

1. **Infrastructure Modifications:** Hostels have introduced "**anti-suicide features**"; such as ceiling fan modifications and iron grills on balconies to prevent self-harm.
2. **Academic Pressure Reduction:** As a temporary relief, local authorities have halted routine testing in coaching centers for more than two months.
3. **Enhanced Support and Training:** Hostel and coaching staff undergo specialized training focused on psychological support, behavioral counseling, and overall student welfare.
4. **Community Engagement Initiatives:** The Kota police have encouraged hostel wardens to engage more with students through initiatives like "**darwaze pe dastak**" (knock on the door), aiming to foster a supportive environment.

### The Critical Role of Parental Support

The difference a supportive family can make cannot be overstated. Stories of young individuals like Ishita Mehra, who found solace and strength in her understanding parents, contrast starkly with those less fortunate. Experts advocate for parental involvement and early intervention in mental health issues, emphasizing the need for a supportive, empathetic approach towards the emotional well-being of young minds.

### Underlying Causes of Desperation Among Students

- **Overwhelming Academic Pressure:** The competitive nature of India's education system, emphasized by rigorous entrance exams and the high demand for limited seats in prestigious institutions, places immense stress on students.
- **Financial Strain:** With a majority of colleges being privately operated, the economic burden of education is considerable. The high costs of tuition and coaching leave many students feeling the weight of their family's sacrifices, exacerbating the fear of failure.
- **Societal and Familial Expectations:** The pressure to meet or surpass parental and societal expectations can be crippling. A failure to do so often leads to feelings of humiliation and despair, pushing some towards fatal decisions.

### Conclusion:

The trend of students expressing their distress on social media is a stark reminder of the need for a more supportive and understanding social infrastructure. It's imperative that efforts to nurture and support young individuals are intensified, creating an environment where they feel valued and understood.

## SOCIETY

### Women, Business and Law 2024 Report

**SOURCE: THE ECONOMIC TIMES**

**PRIORITY: HIGH**

### Context:

The World Bank Group recently unveiled the "**Women, Business and the Law 2024**" report, offering an extensive evaluation of the barriers that obstruct women's participation in the global workforce and their ability to contribute to prosperity.

### About the Women, Business and Law 2024 Report

- **Objective:** To align legal and public policy with the economic decisions of women across their lifespans, pinpointing persisting hurdles.

- **Indicators:** Features 10 key indicators including Safety, Mobility, Workplace, Pay, Child Care, Marriage, Parenthood, Entrepreneurship, Assets, and Pension, with a particular focus on safety from violence and access to childcare services.

### Key Highlights of the Report

- **Legal Frameworks Index:** **High-income OECD economies** show significant progress with 11 countries scoring above 90. In contrast, over 37 economies offer women less than half the legal rights of men.
- **Legal Rights Gap:** Globally, **women enjoy only 64% of the legal protections** men have when accounting for violence and childcare, down from the previously estimated 77%.
- **Implementation Gap:** Despite legal advancements for gender equality, actual outcomes for women remain inadequate with a notable gap between legislation and women's experiences.

### Performance by Countries

- **Notable Performances:** Togo stands out in Sub-Saharan Africa, granting women roughly 77% of the rights available to men, yet struggles with full implementation.
- **Challenges:** Nearly all countries showed poor performance in newly tracked categories—access to childcare and women's safety.

### Women's Safety and Childcare

- **Safety Concerns:** The global average score for women's safety is a mere 36, highlighting insufficient legal protections.
- **Childcare Support:** Less than half of the economies provide financial or tax support for parents, impacting women's decision to join the workforce

### Significant Obstacles for Women

- **Entrepreneurship and Pay:** Women face major obstacles in entrepreneurship and earn 77 cents for every dollar paid to men, extending the rights gap to retirement benefits.

### India's Performance

- **Ranking Improvement:** India's rank slightly improved to 113 with a score of 74.4%, demonstrating a marginal progression in legal rights for women.
- **Legal Rights:** Indian women have 60% of the legal rights compared to men, slightly below the global average but outperforming South Asian counterparts.

### Recommendations of the Report

- **Discriminatory Laws:** Eliminating discriminatory laws could significantly boost global GDP by more than 20%.
- **Supportive Frameworks:** The report stresses the need for robust enforcement mechanisms and supportive policies to empower women economically and amplify their participation in decision-making processes.

### Conclusion

This structured overview captures the essence of the "Women, Business and the Law 2024" report, highlighting the critical challenges and recommendations for advancing women's rights and economic participation globally.

## Violence, Homelessness, and Women's Mental Health: Findings of NFHS Data

**SOURCE: TIMES OF INDIA**

**PRIORITY: HIGH**

### Context:

Recent findings from the National Family Health Survey (NFHS-5) have cast a stark light on the interconnected issues of violence against women, their mental health, and homelessness in India.

### What are the recent findings that relate to Women's Mental Health Issues in India

- **Pervasive Violence Against Women:** The National Family Health Survey (NFHS-5) reveals that nearly 30% of women aged 18-49 have encountered physical violence since the age of 15, and about 6% have experienced sexual violence.
- **Cause-and-Effect Relationship with Homelessness:** Violence and mental health conditions exhibit a reciprocal relationship, significantly escalating the risk of homelessness for women. Many women flee their homes to escape violence, leading to a higher incidence of homelessness among those with mental health issues.
- **Mental Health Conditions and Violence:** Women's mental health is adversely affected by continuous exposure to violence, whether from family members or partners, contributing to a variety of mental health issues such as depression, anxiety, and postpartum depression.
- **Overlooked Factors:** The mainstream discussion on women's mental health often ignores the profound impact of violence on women's lives, focusing instead on biological and reproductive roles without addressing the societal causes like patriarchy and caste based discrimination.

### Other Findings

#### Prevalence of Mental Health Disorders

- **Increased Rates of Anxiety and Depression:** Studies indicate a significant rise in the prevalence of anxiety and depression among women, attributed to factors like societal pressure, domestic responsibilities, and professional stress.
- **Postpartum Mental Health:** There's a noticeable increase in postpartum depression and anxiety among new mothers, often due to lack of support, hormonal changes, and the stress of childcare.

## NFHS-5 FINDINGS

Percentage of women (18-49 years) who experienced domestic violence

|                  | NFHS-5      | NFHS-4      |
|------------------|-------------|-------------|
| <b>All India</b> | <b>29.3</b> | <b>31.2</b> |
| Haryana          | 18.2        | 32          |
| Punjab           | 11.5        | 20.5        |
| Chandigarh       | 9.7         | 22.5        |
| Delhi            | 22.6        | 26.8        |
| Ladakh           | 18.1        | 8.5         |
| JK               | 9.6         | 9.4         |
| Himachal         | 8.3         | 5.9         |

**88.7%** married women participate in household decisions; 84% in NFHS-4

**43.3%** women own a house or land alone or jointly; 38.4% in last survey

**78.6%** have a bank or savings account that they themselves operate; 53% in the previous study

**54%** have mobile phones that they themselves use; up from 45.9% in NFHS-4

#### Impact of Social and Cultural Factors

- **Domestic Violence:** A strong correlation exists between experiences of domestic violence and mental health disorders like depression, PTSD, and anxiety among women. Stigma and Lack of Awareness: Stigma surrounding mental health issues and lack of awareness prevent many women from seeking help, exacerbating the severity of mental health problems.

#### Access to Mental Health Care

- **Limited Access to Services:** There's a significant gap in access to mental health services for women, particularly in rural areas, due to scarcity of resources, lack of trained professionals, and societal norms.
- **Socioeconomic Barriers:** Economic dependency and lower social status often hinder women's ability to seek mental health care independently.

#### Work and Economic Stress

- **Work-Life Balance Stress:** The dual burden of employment and unpaid domestic labor puts working women at a higher risk of stress, anxiety, and depression.
- **Financial Insecurity:** Economic dependence and poverty are major stressors contributing to mental health issues among women, impacting their emotional well-being and access to care.

#### Health and Reproductive Rights

- **Reproductive Health Issues:** Conditions like infertility, miscarriages, and complications related to pregnancy and childbirth can significantly impact mental health.
- **Limited Autonomy:** Restricted reproductive rights and lack of autonomy in health-related decisions contribute to feelings of helplessness and depression.

#### Adolescent Mental Health

- **Body Image Issues:** Social media and societal standards of beauty have been linked to body image issues and eating disorders among young women.
- **Educational Stress:** Pressure to excel academically and career uncertainties are significant sources of stress and anxiety for adolescent girls.

- **Constitutional Provisions:** Articles 14, 15, 15(3), 16, 39(a), 39(b), 39(c), and Article 42 emphasize equality before the law, prohibition of discrimination based on gender, equal opportunity in employment, and measures to secure livelihood and maternity welfare. Through Article 243, the Constitution of India mandates reservations for women in local self-government bodies to enhance their representation and involvement in decision-making processes.
- **Legislative measures Protection of Women from Domestic Violence Act, 2005:** This act aims to counter crimes against women, including rape, dowry deaths, and domestic violence.
- **Mission Shakti and Swadhar Greh Scheme:** This initiative focuses on women's empowerment, safety, and security through skill development, economic empowerment, and support services.
- **One-Stop Centres and Legal Services:** The Government Authorities offer integrated services, legal aid, and support to women affected by violence.
- **The Bhartiya Nyaya Samvidhan, 2023:** The government has implemented various measures like the *Criminal Law (Amendment) Acts*, *Safe City Projects*, and *cyber-crime portals* to enhance women's safety and combat crimes against women.

#### Challenges:

##### Societal Stigma

- **Widespread Stigma:** There is a pervasive stigma surrounding mental health in India, which often prevents women from seeking help.
- **Misunderstanding and Mislabeled:** Mental health conditions are frequently misunderstood as personal failings rather than treatable conditions. For instance, depression post-childbirth may be dismissed as just "moodiness" rather than recognized as postpartum depression needing professional intervention.

##### Gender Inequality

- **Patriarchal Norms:** Deep-rooted patriarchal norms contribute to women's lower status, impacting their mental health.
- **Economic Dependency:** Many women are economically dependent on their male counterparts, limiting their ability to escape abusive situations.

#### Violence Against Women

- **Normalization of Violence:** Societal norms often normalize violence against women, making it a significant yet underaddressed issue.
- **Lack of Safe Spaces:** There are insufficient safe shelters and support systems for women fleeing violence.

#### Legislative Gaps

- **Inadequate Protection Laws:** Existing laws do not adequately protect women from domestic violence or provide enough support for mental health issues.
- **Implementation Challenges:** Even where laws exist, implementation is often weak, and survivors face challenges in accessing justice.
- **Eg:** A woman trying to file a domestic violence complaint may face skepticism or inaction from the police, reflecting implementation issues.

#### Economic Barriers

- **Cost of Treatment:** The cost of mental health care and treatment can be prohibitive for many, especially for those without financial independence.
- **Unemployment and Poverty:** Economic struggles, exacerbated by unemployment or low income, can worsen mental health conditions.

#### Cultural and Social Barriers

- **Cultural Taboos:** Cultural taboos surrounding mental health and gender roles discourage open discussions and seeking help.
- **Discrimination:** Women face discrimination not only based on gender but also on caste, religion, and socio-economic status, affecting their mental well-being.
- **Eg:** Dalit women, for instance, may face compounded discrimination affecting their mental health, based on both their gender and caste.

#### Lack of Awareness and Education

- **Low Awareness Levels:** There is a general lack of awareness about mental health issues and their impact on well-being.
- **Insufficient Mental Health Education:** Education systems rarely include comprehensive mental health education, leaving a gap in understanding and empathy.

#### Possible Measures

- **Recognition of Unpaid Labor:** Acknowledging and compensating women for their unpaid household work is crucial for
- addressing one root cause of economic dependency that contributes to their vulnerability.
- **Creating Supportive Spaces:** Establishing dedicated spaces for women can provide supportive networks and alternative
- family structures, helping to mitigate the effects of heteronormative societal pressures.
- **Ensuring Ownership Rights:** Empowering women with rights to basic income, housing, and land ownership can significantly reduce their vulnerability to homelessness and violence.
- **Educational Reforms:** Revising educational curricula to challenge and interrogate harmful gender norms can play a pivotal role in transforming societal attitudes towards women.

- **Multi-Stakeholder Approach:** Understanding the impact of violence on women's mental health requires the involvement of diverse professionals, innovative research, and the meaningful participation of individuals with lived experiences.

## ECONOMY

### UNNATI 2024

SOURCE: THE HINDU

PRIORITY: HIGH

#### Context:

The Union Cabinet has approved the **Uttar Poorva Transformative Industrialization Scheme (UNNATI), 2024** to foster industrial growth and employment generation in the **northeastern region**.

#### What is UNNATI 2024?

- UNNATI stands for Uttar Poorva Transformative Industrialization Scheme (UNNATI, 2024) for Industrial Development in North Eastern Region.
- Objective: It is scheme launched by Union Cabinet to foster industrial growth and employment generation in the northeastern region.
- It also focuses on **attracting new investments**, nurturing existing ones, and promoting industries like **renewable energy and Electric Vehicle charging stations** while restricting environmentally harmful sectors such as cement and plastic.
- Associated Ministry: It will be driven by the Ministry of Commerce and Industry.

#### Features:

- **Duration:** The duration of the scheme is 10 years from the date of notification along with 8 years for committed liabilities. All eligible industrial units will have to commence their production or operation within 4 years from the grant of registration.
- **Funds Allocation:** INR 10,037 crore has been earmarked for the scheme.
- 60% of the outlay of Part A has been earmarked to 8 NE states and 40% on First-In First-Out (FIFO) basis.
- **Zonal Categorization:** Under the scheme, Districts will be categorized in two zones: - one A (Industrially Advanced Districts) & Zone B (Industrially Backward Districts).
- **Employment Generation:** It is anticipated that direct employment opportunities for about 83,000 individuals will be generated during the period of the scheme, with creation of additional indirect employment opportunities.
- **Incentives for Investors:** The scheme offers various incentives to investors for setting up new units or expanding existing ones, categorised based on GST applicability, like:
  - Capital Investment Incentive
  - Central Capital Interest Subvention
  - Manufacturing & Services linked incentive (MSLI) for new units linked to Net Payment of GST, with upper limits based on zones.

#### Reasons for low progress in North Eastern Region

| Category     | Issues in the North East Region (NER)                                                                                                                                                                                                                                                                                                                                                           |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Geographical | <ul style="list-style-type: none"> <li>- Very high rainfall, shifting river courses, poor drainage system, and narrow valleys causing floods, erosion, landslides, and sand deposition.</li> <li>- Underdeveloped transport links due to hilly, inaccessible and undulating terrain.</li> <li>- Jhum cultivation leading to deforestation, soil erosion, and loss of soil fertility.</li> </ul> |

|                 |                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Political       | <ul style="list-style-type: none"> <li>- Past Chinese aggression on Arunachal Pradesh deterred private investment.</li> <li>- Large scale migration from Bangladesh contributing to socio-economic-political problems.</li> <li>- 'Bandhs' causing disruptions, especially in Assam, Manipur, and Nagaland.</li> <li>- Lack of proper land records and unclear individual land ownership.</li> </ul> |
| Social          | <ul style="list-style-type: none"> <li>- Out-migration for education and jobs impacting local society.</li> <li>- Drug abuse among youth with over 30% being drug abusers.</li> <li>- Rising HIV/AIDS pandemic in Manipur, Nagaland, and Mizoram.</li> <li>- Migration reducing average landholding size to about one hectare.</li> </ul>                                                            |
| Economic        | <ul style="list-style-type: none"> <li>- Low tax collection and dependence on central devolution.</li> <li>- Inefficient financial management leading to fund leakages.</li> <li>- Traditional agricultural practices with low productivity and irrigation coverage.</li> </ul>                                                                                                                      |
| Infrastructural | <ul style="list-style-type: none"> <li>- Poor basic infrastructural facilities like roads, waterways, and energy.</li> <li>- Low percentage of the national road and highway network, and a minimal railway network.</li> </ul>                                                                                                                                                                      |
| Governance      | <ul style="list-style-type: none"> <li>- Poor fund utilization capacity leading to low release of funds.</li> <li>- Many projects languishing due to land acquisition, forest clearance issues, and limited working season due to rainfall.</li> <li>- Weak administrative capacity and organizational structure.</li> </ul>                                                                         |

#### Other Schemes for development of North East

- **Ministry of Development of North East Region (MDoNER) established in 2001**
- **North Eastern Region Community Resource Management Project (NERCORMP)**
- **NITI Forum for North East:** It is tasked to **identify various constraints** on the way of accelerated, inclusive and sustainable economic growth in NER of the country and to recommend suitable interventions for addressing identified constraints. This forum will be co-chaired by the Vice-Chairman of NITI Aayog and MDoNER
- **North East Special Infrastructure Development Scheme**
- **North-East Industrial Development Scheme (NEIDS)**
- **Act East Policy:** Connecting North East with the East Asian countries will automatically increase the flow of men, materials, technology and ideas from and to the North East.
- **Inter-Ministerial Committee (IMC) on Medical and Aromatic Plants (MAPs)**
- **Peace accord signed with Rebel group**
- **Bezbaruah Committee**

#### Gig Workers in India

**SOURCE: THE HINDU**

**PRIORITY: HIGH**

#### Context:

The findings and issues highlighted in the study on app-based workers in the gig and platform economy underscore several critical aspects that need addressing. Here's a summary of the key points and potential recommendations for improvement:

#### Summary of Key Points

- **Long Working Hours and Low Earnings:** A significant portion of app-based workers, particularly cab drivers, work exceedingly long hours for meager earnings, with many earning less than ₹15,000 a month after expenses. The study points out that these conditions are even more challenging for SC and ST communities.
- **Social Inequalities:** The gig economy exacerbates existing social disparities, as those from marginalized communities tend to work longer hours for lesser pay, deepening cycles of poverty.
- **Lack of Social Security:** Gig workers face uncertain employment status, lack of job security, and absence of benefits like sick leave, insurance, and pension, contributing to their vulnerability.
- **Health and Safety Concerns:** The demanding work schedule increases the risk of physical exhaustion, road traffic accidents, and stress-related health issues among gig workers.
- **Need for Regulatory Oversight:** The study emphasizes the importance of government intervention to ensure fair treatment of gig workers, including the fairness of algorithms used by app platforms and the provision of social security.

#### Recommendations for Improvement

- **Establish Legal Frameworks:** Implementing laws like the **Rajasthan Platform-Based Gig Workers (Registration and Welfare) Act 2023** nationally could provide a solid foundation for protecting gig workers's rights and ensuring their welfare.
- **Social Security Benefits:** Extend benefits such as health insurance, sick leave, and pension schemes to gig workers, recognizing them as an essential part of the workforce.
- **Fair Pay and Work Hours:** Introduce regulations to ensure fair compensation and reasonable working hours for gig workers, helping to prevent exploitation.
- **Safety and Health Regulations:** Enforce safety standards and health regulations specific to the gig economy, including measures to prevent overwork and ensure safe working conditions.
- **Algorithmic Transparency and Fairness:** Require platforms to make their algorithms transparent and subject to regulatory oversight to prevent discriminatory practices and ensure fair treatment of workers.
- **Support for Unionization:** Encourage and support the formation of unions or associations for gig workers, providing them a platform to voice their concerns and negotiate better terms.
- **Educational and Skill Development Programs:** Offer programs to help gig workers upgrade their skills and diversify their income sources, enhancing their employment stability and economic prospects.
- **Customer Awareness and Support:** Implement awareness campaigns to educate customers about the challenges faced by gig workers, encouraging fair treatment and support for their welfare.

#### Conclusion

Addressing these issues and implementing recommendations could lead to a more sustainable and fair gig economy, benefiting workers, platforms, and the economy as a whole.

#### No Major Change In Employment Status Or Wages In 10 Years

**SOURCE: THE HINDU**

**PRIORITY: HIGH**

#### Context:

A recent Bahutva Karnataka report sheds light on India's economic growth and employment patterns, revealing significant disparities and challenges

#### Findings

- **Stagnation in Economic Growth:** The report indicates a lack of progress in economic growth, with around 34% of households earning below the proposed National Floor Level Minimum Wage (NFLMW) of ₹375 a day.
- **Wage Inequality:** There is a growing divide between the rich and poor, with the top 1% and 10% of the population holding 22% and 57% of the national income respectively, leaving the bottom 50% with only 12.7%.
- **Employment Shifts:** The analysis highlights a persistent low share of formal sector employment, under 25%, and a dominant self-employment sector encompassing over 50% of the workforce. A significant 8% increase in self-employed women from 2011-12 to 2022-23 reflects a shift towards entrepreneurial activities, despite the rise in unpaid labor within family businesses or farms due to stagnant household incomes and lack of formal employment opportunities.

#### Key Observations and Statistics

- **Income Below Minimum Wage:** Many Indian households, particularly in states like Chhattisgarh and Uttar Pradesh, earn below the recommended NFLMW, with nearly 30 crore workers affected by low wages.
- **Income Growth vs. GDP:** Despite a 60% increase in GDP per capita over the last decade, the majority's income growth has stagnated, exacerbating wealth disparity. The wealth share of the top 10% increased slightly from 63% in 2012 to 64.5% in 2022, while the poorest 50%'s share decreased from 6.1% to 5.6%.

#### Proposed Solutions to Tackle Economic Disparities

- **Enhancing Formal Employment:** The report suggests promoting formal sector employment through policies and incentives for businesses, along with vocational training and entrepreneurship programs, particularly for women, to ensure stable income and social security benefits.
- **Ensuring Fair Compensation:** Implementing and enforcing equal pay for equal work laws and eliminating gender discrimination in the workforce are critical steps towards fair compensation.
- **Revising Minimum Wage Standards:** Regular review and adjustment of minimum wage standards are necessary to match living costs and secure a decent standard of living for all.
- **Rural Development Initiatives:** Investing in rural development can create alternative livelihood sources, reducing reliance on agriculture and addressing unpaid labor issues, especially among women.
- **Addressing Regional Income Disparities:** Targeted interventions are needed to bridge the income and employment opportunity gap between rural and urban areas, including infrastructure development and skill enhancement in economically backward regions.
- **Strengthening Social Safety Nets:** Enhancing social safety programs like Universal Basic Income, healthcare, and education can help mitigate income volatility and support vulnerable populations.

#### Conclusion

The Bahutva Karnataka report highlights critical economic challenges in India, including stagnant income growth, rising self-employment, and significant wage disparities. Addressing these issues necessitates a comprehensive approach involving the promotion of formal employment, equitable pay practices, rural development, and enhanced social safety nets to ensure economic stability and growth for all citizens.

#### Investment Facilitation For Development (Ifd) Initiative

SOURCE: THE HINDU

PRIORITY: MEDIUM

The 113<sup>th</sup> Ministerial Conference (MC13), 2024 of the World Trade Organization (WTO) held in Abu Dhabi saw the **non-adoption of the agreement on Investment Facilitation for Development (IFDA).**

### Background

- At the 11<sup>th</sup> Ministerial Conference (MC11) in Buenos Aires in December 2017, **70 WTO members launched a Joint Statement Initiative (JSI)** for creating a multilateral agreement focusing on investment facilitation.
- The exchanges became formal negotiations in September 2020.
- In 2023, the agreement's legal text was finalized.
- There are now around 120 participants, **making it the largest Joint Initiative at the WTO.**
- **At MC13, the agreement was expected to be legally incorporated into the WTO rulebook.**
- Although non-signatories do not participate in the agreement, **their consensus is needed to include the IFDA as a plurilateral agreement in the WTO**
- **India is not** part of this agreement yet.

### About Investment facilitation for development initiative

- **IFDA aims to improve the investment and business climate and make it easier for investors to invest**, conduct their day-to-day business and expand their operations.
- **It is the most-favoured-nation-based, legally binding plurilateral agreement (PA)** that is open for all WTO members to join.
- While the WTO is a multilateral trade organization, **the WTO Agreement allows for PAs.**
- **These PAs bind only those WTO member countries that accept them** and do not create rights or impose obligations on the remaining members.

### Provisions:

- Create **clear and consistent global standards** for investment facilitation measures;
- **Enhance transparency** between governments and between governments and businesses;
- **Simplify and speed up** administrative procedures;
- **Provide a global forum to promote best practices**; and
- **Offer developing and least-developed Members the technical assistance** and capacity building support they need to implement and benefit from the agreement.
- It has **provisions on 'Special and Differential Treatment' (S&DT)** that provide implementation flexibilities for developing and LDC Parties.
- It promotes sustainable investment, Responsible Business Conduct and anti-corruption measures.
- It **does not** cover market access, investment protection, or investor-state dispute settlement.

### India's and other developing countries concerns on IFD

- According to India, there is **no mandate to conduct negotiations on investment** at WTO.
- The WTO's General Council decided that the talks on the relationship between trade and investment (one of the issues introduced at the 1996 WTO Singapore ministerial conference) — **would not take place as part of the Doha round of negotiations launched in 2001.**
- The 2015 WTO Nairobi ministerial decision says that "any decision to launch negotiations multilaterally on [new] issues would need to be agreed by all members". Since **all countries never agreed to launch negotiations** on an IFD Agreement, according to India, IFDA negotiations and the subsequent text that came up for adoption are illegal.

- **Plurilateral initiatives distract from the multilateral mandate** of concluding negotiations on the Doha Development Agenda.
- IFDA **changes the power dynamics around financing**, with countries now only being able to access funds if they commit to binding obligations.
- **Implementation burden** – implementation of IFDA measures require whole-of-government reforms, and this can be challenging for poorer countries or larger countries with complicated bureaucracies.

#### Arguments in favour of the agreement

- It will help **countries access more investments**.
- Developing and LDC members will access more **capacity-building support** to undertake reforms.
- It can also help in **promoting trade**.
- According to the Organisation for Economic Co-operation and Development, about 70% of international trade occurs through global value chains, which are characterized by trade and investment, thus proving the close relationship between the two.
- The agreement is not a distraction but a **prototype to modernize the negotiating function** to respond to diverse membership needs and an evolving global trade landscape.
- To legally incorporate PA in the WTO rulebook consensus by all members is needed, but **to launch negotiations for a PA consensus is not required**.

#### Conclusion

The 113th WTO Ministerial Conference saw the non-adoption of the IFDA due to concerns like India's objection over the absence of a multilateral mandate for investment negotiations, reflecting challenges in aligning global trade initiatives with diverse member interests.

### India Gaming Report 2024

SOURCE: THE HINDU

PRIORITY: MEDIUM

#### Context:

The Interactive Entertainment and Innovation Council, together with the online gaming company Winzo, has published the India Gaming Report 2024. This report provides an in-depth analysis of the trends and growth patterns in India's gaming industry.

#### Key Insights from the Report:

- **Projected Revenue Growth:** The gaming industry in India is projected to reach a revenue of USD 6 billion by 2028.
- **Dominance of Mobile Gaming:** Mobile gaming constitutes 90% of the Indian gaming market, significantly higher than in the United States (37%) and China (62%).
- **Demographic Insights:** Nearly half of India's gaming community is between the ages of 18 to 30 years.
- **Employment Opportunities in Gaming:** The sector is currently booming with job vacancies estimated to be between 50,000 to 60,000 across various roles such as developers, programmers, testers, artists, and customer service representatives.

#### Overview of India's Gaming Sector:

- India stands as the world's leading mobile gaming market in terms of app downloads.
- By financial year 2025, the sector is projected to grow by 20%, reaching a valuation of INR 231 billion.
- Over the past five years, Indian gaming companies have secured \$2.8 billion in funding from both domestic and international investors.
- The country has fostered three gaming unicorns to date: **Game 24X7, Dream11, and Mobile Premier League**.
- AI and online gaming are projected to contribute up to **\$300 billion** to India's GDP by 2026-27.

**Government Initiatives:**

- **Focus Areas of SERB's Digital Gaming Initiative:** The Science and Engineering Research Board (SERB) is concentrating on three primary areas: R&D in educational and entertainment gaming platforms, developing immersive game prototypes that showcase Indian culture and values, and fostering a collaborative technical design process through SERB Game Labs.
- **Launch of Digital Gaming Research Initiative:** A new digital gaming research initiative has been initiated, marked by the recent SERB-INAIE Conclave aimed at supporting India's digital gaming research and industry growth.
- **Establishment of the AVGC Promotion Task Force:** The Ministry of Information and Broadcasting has established the Animation, Visual Effects, Gaming, and Comic (AVGC) Promotion Task Force to harness the potential of the Indian AVGC sector in furthering the "Make in India" and "Brand India" initiatives.

**Industry Regulation:**

- Currently, the Indian online gaming industry lacks uniform federal regulation, being primarily governed by the Public Gambling Act, 1867, and the Prize Competitions Act, 1955, along with various state legislations.
- The recent assignment of the Ministry of Electronics and Information Technology (MeitY) as the nodal ministry for online gaming has legitimized the sector, with plans to draft new regulations for intermediaries and initiate public consultations.

**Way Forward:**

- The Indian gaming industry has seen significant growth, especially in e-sports, console gaming, mobile gaming, and game development, a trend accelerated by the pandemic.
- Future growth is anticipated to be driven by rapid digitalization, increasing internet usage, and widespread mobile phone accessibility.
- Advancements in gaming experiences are expected to further propel the Indian gaming industry to new heights.

**Exploration Licenses In Karnataka And Rajasthan****SOURCE: THE HINDU****PRIORITY: MEDIUM****Context:**

Karnataka launched an auction of one block of Gold, Copper and Lithium and Rajasthan launched an auction of three blocks of Rare Earth Elements, Rare Metal and Potash minerals.

**What is exploration of Licenses?**

- Exploration licences are permissions or rights given by government authorities to carry out exploration activities in the designated areas.
- These licenses help Junior Mining Companies get expertise from around the world to gather, process, and understand exploration data.
  - It helps companies to take risks to find deep-seated minerals using expertise and new mining technologies.

**Which Minerals for exploration Licenses in Karnataka and Rajasthan?**

- **Minerals in Focus:** Gold, copper, lithium in Karnataka; rare earth elements, rare metals, and potash in Rajasthan.
- License for **29 critical and deep-seated minerals to further boost exploration and mining of critical and deep-seated minerals in the country.**

- Critical and **deep-seated minerals** such as **Cobalt, Lithium, Nickel, Gold, Silver, Copper** are **difficult to explore and mine as compared to surficial or bulk minerals**.
- The Exploration Licence holder will explore the blocks and identify the areas that can be auctioned for Mining Lease.
- The blocks explored by the Exploration Licence holder can be directly auctioned for Mining Lease, which will fetch better revenue to the State Governments.

#### **The Mines and Minerals (Regulation and Development) Act (1957)**

- This rule regulates the mining sector in India.
- In 2023, a new mineral concession of Exploration was introduced for Licence for 29 critical and deep-seated minerals
  - Objective: This amendment aims to boost exploration and mining of critical and deep-seated minerals in the country.

#### **Benefits of Exploration Licenses**

- **Expansion of Knowledge and Data Interpretation:** Leveraging modern technology for mineral discovery.
- **Boosting State Government Revenues:** Direct auctions for mining leases enhance state finances.

#### **The Strategic Focus on Critical Minerals**

- **Critical Minerals Exploration:** Targeting gold, copper, lithium, and more for economic and technological advancement which will also reduce the import bill of India.
- **Supporting Diverse Industries:** Critical minerals' role in high-tech electronics, renewable energy, telecommunications, and defense which will be also critical for internal security.

#### **Prioritizing the Exploration of Critical Minerals**

- **Strategic Focus on Vital Resources:** Emphasizing the exploration of critical minerals like gold, copper, lithium, and others is a strategic move. These minerals are essential for the economic development and national security of the country, playing a crucial role in high-tech electronics, telecommunications, renewable energy, and defense sectors.
- **Global Supply Chains:** The focused exploration of these minerals is central to maintaining India's competitive edge in global supply chains.

#### **Critical Minerals**

- **Critical Minerals:** A mineral is considered critical based on the high risk of supply shortage and its significant impact on the economy.

#### **Benefits of critical minerals:**

- **Supporting Clean Technology and Advanced Manufacturing:** Critical minerals are vital for advancing clean technology initiatives, including zero-emission vehicles, wind turbines, and solar panels.
- **Self dependency:** They are also crucial for supporting information and communication technologies, such as semiconductors, and contributing to advanced manufacturing, including defense applications, permanent magnets, and ceramics.
- **Internal security:** As it protects the defense installation assets and ensures the safety of production of vital instruments in the country.
- **Reduction of current account deficit:** As less import will cost less amount of foreign currency so it will also protect forex.

- **Management of supply chain vulnerabilities:** Karnataka and Rajasthan initiatives to auction exploration licenses for these essential resources represent a proactive approach to securing India's economic future and addressing potential supply chain vulnerabilities.
- **Global clout:** This endeavor not only aims to enhance the country's mining capabilities but also positions India as a significant player in the global market for critical minerals.

### Enhancing Women's Financial Inclusion: Insights from NFHS Data

**SOURCE: INDIAN EXPRESS**

**PRIORITY: MEDIUM**

#### Context:

Recent data from the National Family Health Survey (NFHS) highlight major advancements in financial inclusion for women in India.

#### What is financial inclusion?

- Financial inclusion is the delivery of financial services at affordable costs to all sections of society (including the disadvantaged and low-income segments).
- The term 'Financial' includes all types of financial services, including savings, payments and credit from all types of formal financial institutions.

#### What factors influence financial inclusion?

**Education's Role:** Educated women are more likely to be aware of and use micro-credit schemes.

**Impact of Digital Skills:** Women with digital skills are more inclined to engage in digital financial transactions.

**Occupation Matters:** Working women, irrespective of their job type, often know about and use loan programs.

**Media Access:** Access to electronic media influences financial literacy and service usage.

**Age Factor:** Younger women tend to adopt digital modes of payment more readily.

**Household Influence:** The gender of the household head and their assets affect access to micro-credit programs.

#### NFHS Data about financial Inclusion in India

| NFHS Indicator                        | Description with Examples                                                                                                                                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Self-Operated Bank Accounts           | Significant rise in the number of women having bank accounts in their names, which they manage independently. Example: The increase from 2011 to 2021 highlights a growing trend of women's financial autonomy.                         |
| Awareness of Micro-Credit Schemes     | More women are now aware of micro-credit programs available in their localities. Example: Programs like the Self Help Group (SHG) bank linkage program have seen higher female participation.                                           |
| Participation in Micro-Credit Schemes | An uptick in women's engagement with micro-credit schemes, suggesting these programs are increasingly accessible. Example: More women in rural areas are taking loans for entrepreneurial activities through microfinance institutions. |
| Financial Sovereignty                 | An increase in the number of women reporting control over a certain sum of money, demonstrating financial empowerment. Example: More women now decide how their earnings or savings are spent or invested, compared to two decades ago. |

|                                           |                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Education's Impact on Financial Inclusion | Education levels correlate with the likelihood of engaging with financial services. Example: Women with secondary education are more active in micro-credit schemes, whereas those with higher education tend to seek formal banking services.                                                      |
| Influence of Digital Skills               | Women proficient in digital technology are more inclined to use digital banking and payment services. Example: Women familiar with smartphones and mobile apps are more likely to use mobile banking for transactions.                                                                              |
| Effect of Occupation and Media Access     | Employment and regular access to media contribute to higher financial inclusion. Example: Working women and those with access to internet or television are more informed about financial products and services.                                                                                    |
| Age Factor                                | Certain age groups, especially younger and middle-aged women, show a higher propensity towards utilizing formal financial services. Example: Younger women (aged 18-35) are more likely to adopt digital payment methods, reflecting generational shifts in technology use and financial practices. |

#### Why is financial inclusion important for India?

**Supports Sustainable Development:** Financial inclusion is **linked to 8 of the 17 UN Sustainable Development Goals**, essential for India's overall progress.

**Reduces Gender Disparities:** The NFHS data underscores the reduction in the gender gap in financial sectors, resonating with findings from the **Global Gender Gap Report** and highlighting the significance of inclusive finance in gender equality.

**Boosts Women's Economic Empowerment:** By increasing women's access to financial services, it enhances their economic independence and opportunities.

**Facilitates Widespread Account Ownership:** The increase in bank account ownership, with a **significant 42% rise in India**, demonstrates its expanding reach.

**Improves Social and Economic Growth:** Broad financial inclusion contributes to the overall socio-economic development of the country.

#### What are the government initiatives for financial inclusion in India?

**Pradhan Mantri Jan Dhan Yojana:** This initiative greatly contributed to opening over 28 crore bank accounts for women, enhancing their financial access.

**Deendayal Antyodaya Yojana:** National Rural Livelihood Mission (DAY-NRLM): Focuses on improving rural women's livelihoods and financial stability.

**Skill India Mission:** Provides skill training, helping women gain employment and financial independence.

**Mission Shakti:** Aims at empowering women through various socio-economic measures.

**Pradhan Mantri Awas Yojana:** Offers housing-related financial assistance, improving women's living conditions and economic stability.

**Pradhan Mantri Matru Vandana Yojana:** A maternity benefit program that supports women financially during pregnancy and childbirth.

#### Way forward

To further advance financial inclusion in India, focusing on women in non-women-headed households is crucial. Integrating financial education within skill development programs and raising awareness about

digital transaction safety, especially among the youth, are key steps. Regular updates to these programs will ensure they remain relevant and effective.

### Concerns Related To Savings In India: Borrowing To Consume

SOURCE: THE HINDU

PRIORITY: MEDIUM

#### Context:

In India, people save a lot but often invest in gold and property instead of banks. This makes it expensive to borrow money and has led to more people taking loans for spending, not investing, which could cause economic problems in the future.

#### What is the current state of savings in India?

**High rate of domestic savings:** India's savings rate has historically been strong, peaking at 35% of GDP in 2012 and currently around 30%.

Recent trends show a significant increase in household borrowing, from 3.1% of GDP in 2019 to an expected 4.8% in 2024, primarily for consumption, which diverts funds from investment.

**Preference for Physical Assets:** A significant portion of these savings, over 60% of household gross domestic savings, is invested in physical assets such as housing, land, agriculture, and gold.

#### What are the concerns?

- **Impact on Borrowing Costs:** With a large portion of wealth tied up in non-liquid assets such as property and gold, there is less capital available in the banking system for lending. This scarcity of available funds makes borrowing more expensive. High interest rates on loans can deter investment in business expansions and infrastructure development, which are crucial for economic growth.
- **Rising Household Debt:** The article also points out an increasing trend of borrowing among Indian households, predominantly for consumption rather than investment. This shift towards consumer debt, driven by easy access to credit through cards and personal loans, can lead to financial instability for individuals and, cumulatively, for the economy.
- **Long-term Economic Concerns:** The preference for non-banking investments and the rise in consumer debt could pose long-term risks to India's economic stability. Lower deposits in banks limit the funds available for productive lending, potentially stifling economic growth. Additionally, high levels of consumer debt might lead to increased default rates, which could further strain the financial system.

#### Conclusion

India's high savings rate is skewed towards physical assets like gold and property, leading to expensive borrowing and more consumption loans. This trend could strain economic growth and financial stability, necessitating policy changes to encourage financial asset investments.

### World Happiness Report 2024

SOURCE: THE HINDU

PRIORITY: LOW

#### Context:

The **UN Sustainable Development Solutions Network (UNSDSN)** released the World Happiness Report 2024 on 20th march 2024. India was ranked 126th out of 143 nations.

#### About the Report:

- It has been released **every year since 2012** on the basis of survey data collected from people in more than 150 countries.
- The ranking is based on individuals' own assessment of their life satisfaction, alongside factors like GDP per capita, social support, and life expectancy.

- The ranking is based on six key factors:
  - social support,
  - Income,
  - Health,
  - freedom,
  - generosity,
  - and absence of corruption.
- It is also supported by taking the average life evaluation data gathered by the Gallup polls for the 2021-23 period.

#### Key findings of the report:

- Finland claimed the top spot of the world's happiest country for the seventh consecutive year.
- Denmark, Iceland, Sweden, Israel bagged the next four spots respectively.
- **India retained its rank of 126 when compared to last year in the index.**
- In 2022, India ranked 136th position out of 146 countries
- India's neighbors:
  - China is ranked 60th,
  - Nepal is ranked at 93,
  - Pakistan is ranked at 108,
  - Myanmar is ranked at 118,
  - Sri Lanka is ranked at 128 and
  - Bangladesh is ranked at 129th spot.
- hyperinflation hit Pakistan is also ranked better than India.
- Afghanistan remained at the bottom of the table of 143 countries.
- Whereas the United States and Germany were not in the top 20 happiest nations for the first time.

#### Benevolence Levels:

- It means how likely people are to help others in need, as feelings of social support factor into life satisfaction.
- There is a post-COVID increase in how benevolent people are across all generations, particularly those born after 1980, the Millennials and Generation Z "who are even more likely than their predecessors to help others in need".
- **Older Indian Women:** They tend to report **higher life satisfaction** compared to men, **despite facing more stressors and health challenges.**
- **Older Indian Men:** Particularly those in **higher age brackets, presently married**, and those with an **education**, tend to report **greater life satisfaction compared to their counterparts..**
- Among older Indians, factors such as **dissatisfaction with living arrangements, perceived discrimination and poor self-rated health** are linked to **lower life satisfaction.**
- Correlation **Between Caste Divisions And Life Satisfaction:** It highlights that life satisfaction was higher among non-schedule caste (SC) and non-schedule-tribe (ST) than their SC-ST peers.
- **Impact of Education & Caste:** Education and caste **played key roles**, with older adults with higher education and those of higher social castes reporting higher life satisfaction than their counterparts without **formal education and those from SCs and STs.**
- **Regional Variations:** Regionally, **older adults from Western parts of India were much happier** than those living in north-eastern or central regions.

#### Arising Concerns in the World Happiness Report

- **Widening Gap:** Worldwide, **women were less happy** than men in every region, with the gender gap widening as they aged.

- The report raises concerns regarding the **escalating disparity in happiness worldwide**, particularly among **older individuals and in Sub-Saharan Africa**, highlighting **discrepancies in income, education, healthcare, and social support systems**.
- **Happiness inequality is widening in every region except Europe**, increasing by more than 20% over the past dozen years.
- **Happiness Trends among Different Age Groups:** This was the first edition that looked at the intersectionality of life satisfaction with age and generations.
  - **Aged 30 and Below:** **Lithuania, Israel, Serbia, Iceland and Denmark** ranked in the top five, with Finland at the seventh rank.
  - **Aged 60 and Above:** **Denmark** claims the top spot for those over 60.
- **Decline in Children's Happiness:** Alarmingly, the report highlights a decline in children's happiness, **particularly in North America and Western Europe**.
  - There is **an urgent need for policy action** to address this concerning trend.

### Significance

It reflects a worldwide demand for more attention to happiness and well-being as criteria for government policy. It reviews the state of happiness in the world today and shows how the science of happiness explains personal and national variations in happiness.

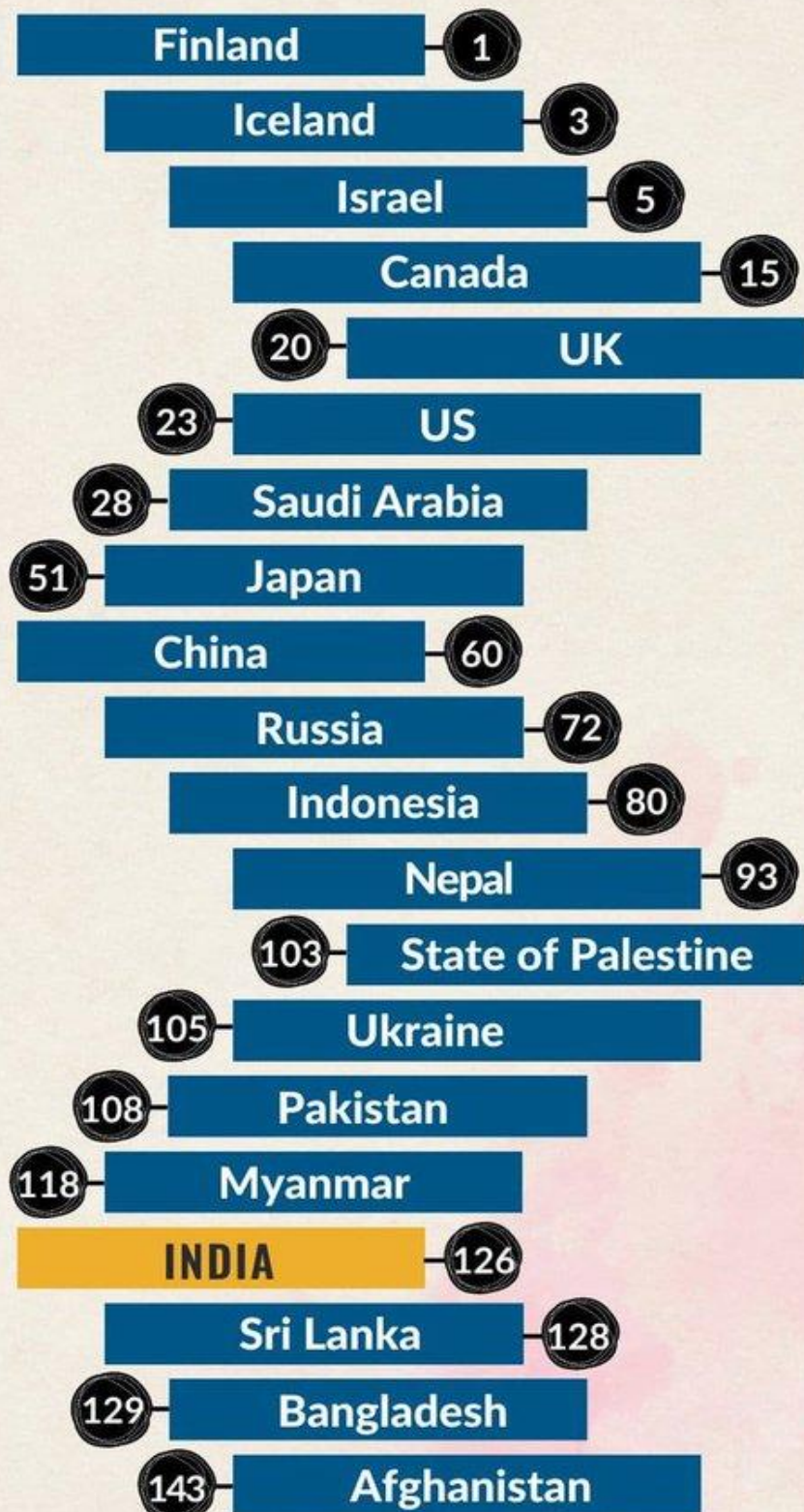


# India is not that happy

According to World Happiness Index 2024

Ranking of happiness based on a 3-year average 2021-23

Finland topped for 7th year in a row; India's ranking unchanged from last year; Afghanistan at bottom again



## UN Sustainable Development Solutions Network (UNSDSN):

- It is a non-profit organization established in 2012 by the United Nations for promoting the 17 Sustainable Development Goals (SDGs) at different levels.
- It was launched under the auspices of the UN Secretary-General.

## Patent Rules 2024- Significance and Challenges

Source: The Hindu

Priority: Medium

Context:

Recently the Patents Rules 2024 has been notified which marks a significant milestone in the patent regime of India. These rules introduce several provisions which aims to simplify the process of obtaining and managing patents to facilitate a conducive environment for inventors and creators and accelerate economic development.

#### Provisions of Patent Rules 2024

| Provision                                                      | Description                                                                                                                                                                                                                                               |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certificate of Inventorship                                    | A new 'Certificate of Inventorship' has been introduced to acknowledge inventors' contributions to the patented invention.                                                                                                                                |
| Incorporation of Form 31                                       | The provision for accessing Grace period benefits under Section 31 has been streamlined through the introduction of new forms like Form 31.                                                                                                               |
| Reduction in Time frame                                        | The time restriction for providing foreign application filing details in Form 8 has been modified from six months from the date of filing to three months from the date of issuing of the first examination report.                                       |
| Decreased Time Restriction for filing a request for inspection | Given the rapid advancement of technology, the time restriction for filing a request for inspection has been decreased from 48 months to 31 months from the date of priority of application or the date of filing of application, whichever occurs first. |
| Reduction in Renewal Fees                                      | Renewal fees have been reduced by 10% if paid in advance via electronic method for at least four years.                                                                                                                                                   |
| Reduced Frequency of filing patents                            | Patent statements in Form 27 are now required every three fiscal years instead of annually. Additionally, a provision allowing a three-month delay in filing upon request has been added.                                                                 |

**Patent-** A patent is a form of intellectual property granted by the government to inventors. It provides the owner with the legal right to prevent others from making, using, or selling an invention for a specific period.

**Patent Regime in India** – In India, patents are governed by the Patents Act, 1970. Under the act, patents are granted if the invention fulfils the following criteria:

- It should be novel;
- It should have inventive step/s, or it must be non-obvious;
- It should be capable of industrial application; and
- It should not attract the provisions of section 3 (what cannot be qualified as patents) and section 4 (inventions related to atomic energy) of the Patents Act 1970.

Indian Patent Act of 1970 was amended to align with the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement of WTO. The Amended Indian Patent Act of 2005, introduced patents for pharmaceutical products.

#### Advantages of Strong Patent Regime with Notified Patent Rules 2024

- Promotes Research and Innovation:** A robust patent regime encourages a culture of research and innovation. It motivates individuals and organizations to develop products tailored to local needs and demands, such as the low-cost menstrual pad manufacturing machine in India.
- Attracts Foreign Investment:** Streamlined patent rules enhance the attractiveness for foreign direct investment (FDI). This is similar to China's experience where strengthened patent protection regimes drew significant manufacturing sector FDI.

- **Boosts Exports:** A strong patent regime supports the development of niche technologies, which can be leveraged to increase exports from India. Examples include advancements in vaccine technology like COVISHIELD and COVAXIN.
- **Social Benefits:** Patents are crucial in addressing societal challenges such as climate change, poverty, and hunger. Innovations like Carbon Capture, Use, and Storage (CCUS) technologies demonstrate patents' roles in tackling global warming.
- **Fulfills International Obligations:** A robust Intellectual Property Rights (IPR) regime helps India meet its international commitments under treaties such as TRIPS, the Berne Convention, and the Budapest Treaty, enhancing its global image.

### Challenges in the Patent System in India

- **Low Private Sector Investment:** India's private sector invests only about 0.7% of its GDP in R&D, compared to higher investments in developed countries. This lack of investment hinders patent development.
- **Compulsory Licensing Concerns:** The provision for compulsory licensing, though designed to meet public health needs, creates apprehension among innovators, affecting their motivation to develop new patents.
- **Restrictions Against Evergreening:** Legal restrictions against the evergreening of patents, particularly in the pharmaceutical sector, challenge companies that depend on extending the economic life of their patents.
- **Abolition of IPAB:** The dissolution of the Intellectual Property Appellate Board (IPAB) in 2021 and the transfer of its functions to the courts has complicated the resolution of disputes and increased case backlogs.
- **Inadequate Implementation and Enforcement:** The enforcement of patent laws in India is often criticized for being inefficient, which discourages patent filing and weakens the overall patent protection environment.
- **Infrastructure and Resource Shortages:** The patent office infrastructure and the shortage of skilled personnel significantly delay the patent filing and granting processes.
- **Protectionism in Generic Medicines:** India's protective stance on its generic pharmaceutical industry often leads to reluctance in granting patents to foreign entities, affecting international pharmaceutical investments.

### Way Forward

- **Post-facto Patent Quality Analysis:** Conducting a post-facto analysis to evaluate the impact and relevance of patents can help focus efforts on high-quality, impactful innovations.
- **Strengthening the IP Regime:** Enhancing the robustness of the IPR regime would provide stronger incentives for firms and research institutions to invest in and file patents.
- **Re-establishment of IPAB:** Reinstating the Intellectual Property Appellate Board with improved autonomy and resources would aid in quicker and more effective dispute resolution.
- **Enhancing Public Awareness:** Increasing awareness about the benefits of intellectual property rights across all societal sectors can cultivate a more supportive environment for innovation.

### Conclusion

**The Patents Rules 2024 represent a progressive step towards** refining India's patent system. However, continuous evaluation and adaptation are essential to address ongoing challenges and to fully leverage the potential benefits of a strong patent regime.

## AGRICULTURE

## Food Storage Infrastructure

SOURCE: KURUKSHESTRA

PRIORITY: HIGH

**Context:**

Food Storage Infrastructure Systems are critical components of agricultural logistics and supply chains. They encompass the facilities, technologies, and methodologies used to store agricultural products safely from the time they are harvested until they are distributed for consumption. In India, where agriculture is a significant part of the economy, the importance of robust food storage infrastructure cannot be overstated. Let's explore this concept further by breaking down the types of storage infrastructure in India and understanding their importance.

**Types of Storage Infrastructure in India****Traditional Storage Structures**

In India, traditional storage structures are still widely used, especially on farms. Examples include:

- **Kanaja:** A cylindrical structure typically used for storing grains.
- **Kothi:** A large storage container.
- **Sanduka:** A type of wooden box.
- **Earthen pots:** Used for smaller quantities of grains or seeds.
- **Gummi and Kacheri:** Other traditional forms used in rural areas.

These structures account for 60–70% of grain storage on farms. However, they may not be ideal for long-term storage as they do not always protect against pests and environmental factors effectively.

**Modern Storage Structures**

To enhance the protection and longevity of stored agricultural products, modern storage structures are employed. These include:

- **Warehouses:** Large buildings designed for the safe storage of goods in a controlled environment.
- **Farm silos:** Vertical storage structures that offer protection from pests and the elements, suitable for large-scale grain storage.

These modern facilities are constructed scientifically to maintain both the quantity and quality of the stored products.

**Government Initiatives for Food Storage Infrastructure in India**

| Initiative                                                                    | Description                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Integrated Cold Chain and Value Addition Infrastructure scheme                | Created a cold storage capacity of 8.38 lakh MT.                                                                                                                                                                                                                     |
| National Policy on Handling, Storage and Transportation of Food Grains (2000) | Promoted private sector participation in the construction of warehouses and storage infrastructures.                                                                                                                                                                 |
| Food Corporation of India (FCI) schemes                                       | Includes schemes like the Private Entrepreneurs Guarantee (PEG) Scheme and Hiring of godown through Private Warehousing Scheme (PWS), resulting in the creation of 1923 warehouses (owned/hired) with a capacity of 371.93 LMT for storing Central Pool food grains. |
| World's Largest Grain Storage Plan in Cooperative Sector                      | Aims to create various agricultural infrastructures at the Primary Agricultural Credit Societies (PACS) level, such as decentralized godowns, custom hiring centers, processing units, and Fair Price                                                                |

|                                              |                                                                                                                                                                                                                  |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              | Shops through convergence of various existing schemes under different Ministries of the Government of India (GoI).                                                                                               |
| Primary Agricultural Credit Societies (PACS) | With a member base of more than 13 crore farmers, PACS receives financial support from NABARD to create agricultural infrastructure.                                                                             |
| Tax Benefits                                 | The Income Tax Act, 1961 allows for a deduction of up to 150% on expenditures incurred towards setting up cold storage. Additionally, the setting up of cold storage is exempt from service tax and excise duty. |

### Importance of Food Storage Infrastructure Systems

- **Reduction of Post-Harvest Losses:** As per a NABARD study, significant post-harvest losses occur in cereals, pulses, and fruits due to inadequate storage facilities. Scientific storage methods can reduce these losses dramatically, from as high as 15% down to 1-2%.
- **Enhancement of Food Security:** With India's population expected to reach 1.64 billion by 2047, robust storage systems are essential to meet the increasing food demand and to maintain a sustainable food system.
- **Prevention of Food Supply Collapse:** In events such as natural disasters or pandemics, a resilient food storage system can prevent the breakdown of food supply chains.
- **Economic Support to Farmers:** By providing reliable storage options, farmers can avoid distress sales and receive better prices for their produce.
- **Employment Generation:** The construction and maintenance of storage facilities create job opportunities in rural areas, thus boosting the local economy.

### Challenges in Developing Storage Infrastructure in India

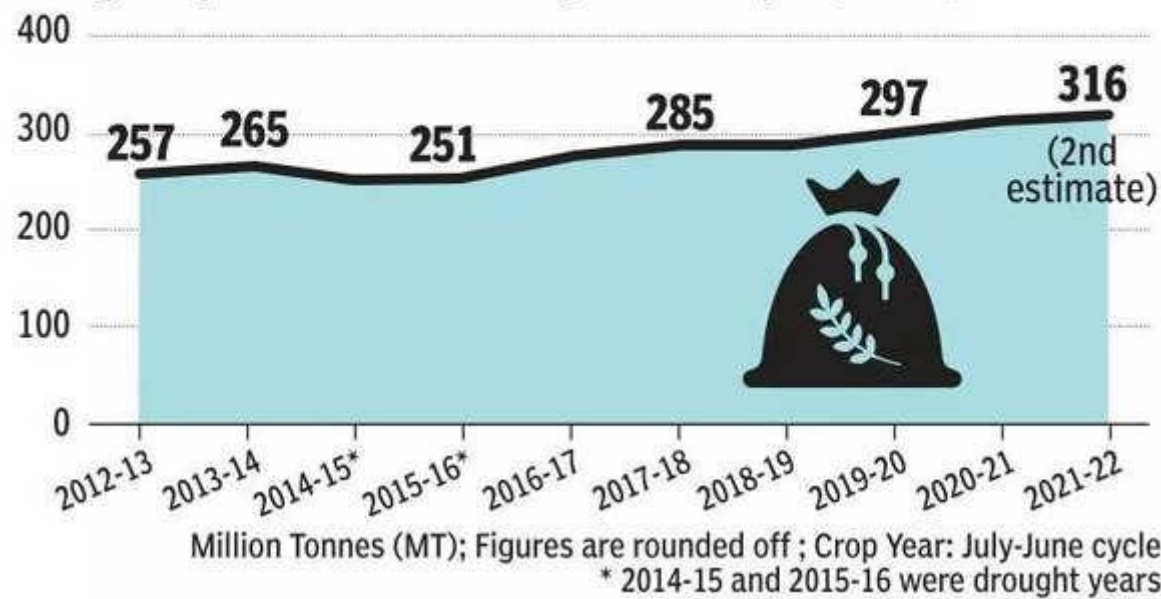
The development of a robust food storage infrastructure in India faces several critical challenges that need to be addressed to enhance food security and support sustainable agricultural practices. These challenges include:

#### Shortage of Storage Infrastructure

- **Capacity Gap:** The current storage capacity in India stands at only 145 million metric tons (MMT), whereas the total food grain production is about 311 MMT. This significant gap leads to inefficiencies in handling and storing surplus grains.

# HARVEST TALE

Foodgrain production over the years - Output (in MT)



- **Reliance on Traditional Structures:** Approximately 60–70% of grains are stored on farms using traditional structures like Kanaja and Kothi, which are not suitable for long-term storage and are prone to damage and loss.
- **Inefficiency of Primary Agricultural Credit Societies (PACS) and Agricultural Cooperatives**
- **Operational Challenges:** Many PACS and agricultural cooperatives suffer from inefficiencies and lack the capacity to execute and manage modern storage infrastructure effectively. For instance, only about 63,000 out of 100,000 PACS are currently operational.
- **Low Investment**
- **Government and Private Sector:** Despite the recognized need for modern storage facilities, both government and private sector investments have been insufficient. Low capital expenditure in annual budgets and hesitant private sector investment have slowed the pace of infrastructure development.
- **Skill Deficiency**
- **Workforce Training:** There is a notable lack of skilled personnel capable of operating and managing modern, technologically advanced storage facilities. This skill gap hinders the efficiency and effectiveness of storage operations.

## Way Forward

To overcome these challenges and build a resilient storage infrastructure, several strategic steps can be proposed:

- **Promotion of Decentralized Local Storage Systems:** Implementing decentralized storage solutions can help reduce food grain wastage, strengthen local food security, and support farmers by reducing the necessity for distress sales.
- **Increased Investment in Post-Harvest Infrastructure:** There is a critical need to boost investment in the modernization of warehousing, logistics, cold chain solutions, food processing, and integrated value chain development to support a sustainable and efficient food storage system.
- **Modernization of Existing Storage Facilities:** Upgrading current storage facilities to accommodate perishable commodities such as fruits, vegetables, dairy products, and meats is essential to reduce post-harvest losses in these high-risk categories.

- **Exploration of Public-Private Partnerships (PPP) and Farmer Producer Organizations (FPOs):** Utilizing PPP and FPO models can facilitate the development of modern storage infrastructures, leveraging both public oversight and private innovation.
- **Training and Skill Development:** Enhancing the skill set of the Indian youth through targeted training programs in storage facility construction, maintenance, and management is crucial to ensure the sustainability and effectiveness of storage infrastructures.

Addressing these challenges and implementing these strategies can significantly improve the resilience and efficiency of India's food storage infrastructure, ultimately contributing to the nation's food security and agricultural sustainability.

### Weaning Punjab, Haryana Away From Growing Paddy

**SOURCE: DOWN TO EARTH**

**PRIORITY: HIGH**

#### Context:

- Punjab and Haryana, once the drivers of India's Green Revolution, are now facing a crisis centered around their dependence on water-intensive paddy cultivation.
- This dependence is causing unsustainable groundwater depletion and severe air pollution.
- Both states are encountering obstacles in sustaining the growth momentum attained during the initial three decades of the Green Revolution.

#### The problem

- **Water Guzzling Crop:** Paddy is a **water-guzzling crop**, which was not an important crop in these States until the early 1970s, now occupies over 88 per cent and 52 per cent of the kharif cropped area in Punjab and Haryana, respectively.
- **Groundwater Depletion:** Groundwater irrigation now accounts for 74 per cent of the total irrigated area in Punjab and 63 per cent in Haryana.
  - **Paddy alone accounts for 80 per cent** of the total groundwater use in agriculture in Punjab and 47 per cent in Haryana.
  - Extensive cultivation of paddy has resulted in extraction of groundwater to an extent that 76 per cent of the administrative blocks in Punjab and 62 per cent in Haryana are in the **dark zone**.
- **Subsidy factor:** Both States have been providing huge subsidies on electricity for agriculture.
- Besides, the Centre provides subsidies on fertilizers. Together, these amount to around ₹30,000 per hectare of paddy sown area.
- **Minimum support price:** Paddy offers guaranteed income through government-set minimum support prices and well-established market channels. Alternative crops often lack similar price support mechanisms.

#### What are solutions for the crisis:

##### Resource Endowment-Based Crop Planning:

- The optimal solution involves crop planning based on regional natural resources and climatic conditions.
- However, the viability of such planning depends on the relative profitability of different crops. With the exception of horticultural crops, few crops in both states match the profitability of paddy.
- Therefore, resource-based crop planning **necessitates a compensation package** equal to the revenue forgone from paddy due to less lucrative crop substitution.

##### Repurposing Input Subsidies:

- Redirecting input subsidies towards adopting sustainable agricultural practices that generate non-tradable ecosystem services, and creating efficient markets for their trading.

#### Rehabilitating Canal Irrigation and Promoting Conjunctive Use:

- Invest in the rehabilitation of canal irrigation systems to improve water distribution efficiency.
- Promote conjunctive use of surface water and groundwater resources for irrigation.
- Implement modern irrigation techniques, such as drip irrigation, to minimize water wastage and increase crop yield.

#### Research for Alternative Crops:

- Allocate resources for research and development of alternative crops suited to regional conditions.
- Prioritize crops with the potential for profitability and resilience to climate change.
- Collaborate with agricultural research institutions and universities to identify and promote the cultivation of these alternative crops.

#### Conclusion

The paddy-centric agriculture model is jeopardizing the future of Punjab and Haryana's agriculture. A multifaceted approach that includes policy reform, technological solutions, and market interventions is urgently needed to ensure that the once-lauded Green Revolution regions of India transition to sustainable and resilient agricultural practices.

### WTO, India Asserts Fish Subsidies For Developing Nations

SOURCE: THE HINDU

PRIORITY: MEDIUM

#### Context:

- The 13th ministerial conference (MC13) of four days commenced on February 26 in Abu Dhabi, United Arab Emirates (UAE).
- Trade ministers of 164 member countries of the World Trade Organisation (WTO) are meeting against the backdrop of the **uncertain global economic situation** due to the **Red Sea crisis**, the **Ukraine-Russia war** and the **Israel-Hamas conflict**.

**FISHY TALKS**

India rejects fish subsidy text, no level playing field for poor nations

Developing nations want end to sops for distant water fishing for 25 yrs

India gives \$15 annual subsidy per fish family vs \$75,000 by rich nations

Current text will institutionalise disparity, India says

Policy space key for poor fisherfolk's live-lihood, sustainable growth

It is necessary to open the eyes of this august assembly to the deep concerns of the low-income countries and the developing world and...to the huge disparity sought to be foisted on us once again like it was done in agri 35 years ago

**Piyush Goyal**  
Commerce & industry minister

#### What is the Issue?

- **Overfishing fueled by harmful fisheries subsidies** has led to the depletion of global fish stocks. This poses a threat to marine ecosystems, food security, and the livelihoods of millions of people who depend on fishing.

### What is India's Stand?

- India recognizes the need to **curb unsustainable fishing practices** but emphasizes the importance of protecting the interests of millions of artisanal and small-scale fishers in developing countries.
- India promotes a balanced approach that prioritizes:
  - Livelihood Protection:** Continued subsidies for poor fishermen within their exclusive economic zones (EEZs).
  - Sustainability:** A 25-year stop on subsidies for developed countries fishing beyond EEZs.
  - Fairness:** Advocating for the principles of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC) and Special and Differential Treatment (S&DT) to ensure equity for developing nations.

### Challenges

- Balancing interests:** Finding a compromise that addresses overfishing while safeguarding the livelihoods of millions of fishers in developing countries.
- Equity:** Ensuring that the agreement doesn't disproportionately impact poor fishermen and developing nations that rely on fisheries.
- Enforcement:** Developing robust mechanisms to enforce the agreed-upon regulations.

### Way Out

- Data-driven approach:** Better data collection and analysis of the impact of fisheries subsidies.
- Targeted subsidies:** Focusing subsidies on sustainable fishing practices and the needs of small-scale fishers.
- Phasing-out harmful subsidies:** Gradually eliminating subsidies that incentivize overfishing.
- International cooperation:** Collaboration between countries to ensure sustainable management of marine resources.
- Capacity Building:** Assisting developing countries in transitioning to sustainable fishing practices.

[\\*Click here to read more about WTO](#)

### UPSC Pre PYQ's

Q. Which one of the following issues the 'Global Economic Prospects' report periodically? (2015)

- The Asian Development Bank
- The European Bank for Reconstruction and Development
- The US Federal Reserve Bank
- The World Bank

Answer: d)

Q. India's ranking in the 'Ease of Doing Business Index' is sometimes seen in the news. Which of the following has

declared that ranking? [2016]

- Organization for Economic Cooperation and Development (OECD)
- World Economic Forum
- World Bank
- World Trade Organization (WTO)

Answer: c)

### UPSC Mains PYQ's:

Q1. What are the key areas of reform if the WTO has to survive in the present context of 'Trade War', especially keeping in

mind the interest of India? – 2018

Q2. "The broader aims and objectives of the WTO are to manage and promote international trade in the era of globalization. But the Doha round of negotiations seem doomed due to differences between the developed and the developing countries."

Discuss in the Indian perspective. – 2016

### New Indian Agriculture Challenges for Viksit Bharat by 2047

**SOURCE: THE HINDU**

**PRIORITY: MEDIUM**

#### Context:

As India progresses towards its vision of a "Viksit Bharat" by 2047, an inclusive and developed nation, agriculture remains a pivotal sector, given its significant contribution to the economy and employment. However, despite steady growth over the years, the sector faces numerous challenges that could impede this vision. Understanding these obstacles is essential to devising effective strategies for sustainable development.

#### Growth Over the Years

- **Long-Term Growth:** Since the early 1990s, Indian agriculture has grown at an average annual rate of approximately 3.3%. This growth trajectory reflects gradual improvements in productivity and technology adoption across decades.
- **Recent Trends:** Under the governance of different political regimes, the sector witnessed marginal fluctuations in growth rates, with the Modi government recording a 3.6% growth, slightly higher than the 3.5% during the Manmohan Singh era.

#### Current Economic Contribution

- **Workforce Engagement:** About 45% of India's workforce is engaged in agriculture, underscoring its critical role in employment and economic stability.
- **Contribution to GDP:** Agriculture contributes around 18% to the national GDP. However, the agri-GDP growth for 2023-24 plummeted to just 0.7%, indicating recent strains.

#### Future Projections

- **2047 Projections:** By 2047, the share of agriculture in GDP might reduce to 7-8%, although it is projected to still engage over 30% of the workforce.

### Challenges for Indian Agriculture in Realizing a Viksit Bharat by 2047

#### Climate Change Impact

- **Vulnerability:** Agriculture in India is extremely susceptible to climate-related risks, such as rising temperatures and erratic rainfall patterns, which have already led to a significant drop in growth rates.
- **Example:** The 2023-24 agri-GDP growth reduction to 0.7% was largely due to unseasonal rains and other climate anomalies.

#### Workforce Imbalance

- **Low Productivity:** The significant workforce engagement compared to its GDP contribution highlights a severe productivity gap. This imbalance is a crucial issue that could lead to larger economic disparities within the country.

#### Resource Management

- **Key Issues:** The sector faces critical challenges in managing essential resources, including water consumption, soil degradation, and controlling greenhouse gas emissions.

### Technology and Innovation Lag

- **Need for Modernization:** There is a pressing need to modernize farming practices through technology and infrastructure development to not only cope with climate adversities but also to boost productivity.

### Policy Limitations

- **Outdated Strategies:** Many current agricultural policies, such as export controls and stocking limits, are based on outdated approaches from the 1960s. These require thorough revision to align with contemporary needs and global standards.

### Recommendations for Advancing Indian Agriculture

- **Enhance Productivity:** Greater allocation of resources towards agricultural research and innovation could significantly improve productivity.
- **Economic Returns:** Focusing on sectors like poultry, fishery, dairy, and horticulture can yield higher economic returns and ensure sustainability.
- **Improve Market Access:** Policies and institutions should be developed to better connect farmers with both national and international markets, leveraging platforms like E-NAM and ONDC.
- **Rationalize Subsidies:** Redirecting subsidies from traditional areas like food and fertilizers towards sustainable agricultural practices is crucial for long-term benefits.
- **Enhance Skill Development:** Empowering the rural workforce with better skills and training opportunities is essential to prepare them for more productive roles in a rapidly urbanizing landscape.

### Conclusion

The journey towards realizing a fully developed (Viksit) Bharat by 2047 entails addressing these multifaceted challenges in the agricultural sector. By implementing strategic reforms focused on modernization, sustainability, and inclusivity, India can ensure that its agricultural backbone remains robust and capable of supporting the nation's developmental aspirations.

## SCIENCE AND TECH

### Understanding the Impacts of Artificial Intelligence: Social, Political, and Economic Perspectives

SOURCE: THE HINDU

PRIORITY: MEDIUM

#### Context:

Artificial intelligence (AI) is redefining the boundaries of technology, with implications that extend across various sectors including social, political, and economic spheres. Here's a structured exploration of these impacts:

#### What is Artificial Intelligence (AI)?

- **AI represents the intelligence exhibited by machines,** aiming to emulate human cognitive functions. It involves creating algorithms and models that allow machines to perform tasks that typically require human intelligence.
- **Generative AI:** A subset of AI, generative AI is capable of producing content such as text, images, and audio. This technology generates new data based on input parameters, like creating facial images from specified features.

#### Political Impacts of AI

##### Positive Impacts:

- **Innovative Policy Development:** AI is utilized in drafting legislation, exemplified by AI-drafted bills in the US Congress.

- **Enhanced Political Messaging:** Advanced analytics powered by AI help craft impactful political messages, transforming campaign strategies.
- **New Political Platforms:** AI facilitates new forms of political engagement and development of political ideologies, such as Denmark's Synthetic Party.
- **Economic Contributions:** AI-driven initiatives are reshaping political finance by supporting fundraising and new business ventures.
- **Campaign Strategies:** Generative AI aids electoral campaigns by providing capabilities like real-time translation of speeches.

#### Negative Impacts:

- **Promotion of 'Liar's Dividend' through Deepfakes:** AI-generated deepfakes are being used politically to challenge the authenticity of real media, causing public distrust.
- **Erosion of Trust in Democratic Processes:** Fake media, such as doctored videos, are presented as real to mislead public opinion and disrupt democratic integrity.
- **Manipulation Risks:** AI poses risks of influencing elections and public opinion through the dissemination of false narratives.
- **Ethical and Legal Challenges:** The integration of AI in politics raises significant ethical and legal questions regarding its influence on democratic processes.

#### Social Impacts of AI

##### Positive Impacts:

- **Improving Healthcare:** AI enhances diagnostic accuracy in the medical field, transforming patient care.
- **Boost to Agriculture:** Precision agriculture powered by AI increases crop productivity by utilizing accurate data.
- **Empathy for War-Torn Regions:** AI-generated images from projects like MIT's Deep Empathy promote understanding and support for disaster victims.
- **Voice Restoration:** AI technologies help restore voices for individuals affected by conditions like ALS.
- **Creative Arts and Entertainment:** AI is used in arts, such as reviving deceased actors for performances or improving film dubbing.

##### Negative Impacts:

- **Crimes Against Women:** Deepfake technology is misused to create inappropriate content, impacting women's dignity.
- **Fueling Radicalization:** Entities like ISIS utilize AI to create and spread fake content to incite violence.
- **Threat of Job Losses:** AI's efficiency may lead to job displacements in sectors like customer service.
- **Data Privacy Concerns:** The vast data handling capability of AI raises significant privacy and security concerns.
- **Environmental Impact:** AI's substantial energy demands contribute to environmental concerns, including high carbon emissions.

#### Economic Impacts of AI

##### Impact on Interest Rates:

- The integration and advancement of AI technology necessitate significant capital investments, potentially leading to higher real interest rates due to:
- **Increased Capital Expenditure:** The production of advanced semiconductor chips for AI development requires substantial investment.

- **Higher Productivity of Capital:** As AI enhances capital productivity, it contributes to an increase in real interest rates.
- **Expansion of Infrastructure:** AI integration boosts demand for energy and infrastructure, further driving up costs and investment needs.
- **Water Desalination Projects:** AI-driven cost reductions in water desalination may boost real estate development, increasing energy use and investment demands.
- **Advancements in Military Technology:** Investment in AI-driven military technologies like drone combat is likely to increase.
- **Government Programs for Worker Assistance:** The displacement caused by AI could expand government spending on social programs, impacting interest rates.

#### AI Regulation: Status and Future Directions:

##### India:

- **Digital India Framework** aims to safeguard digital citizens and regulate AI use.
- **National AI Programme** promotes responsible AI use.
- **National Data Governance Framework Policy** governs data in AI systems.
- **Draft Digital India Act** plans to include AI-specific regulations.

##### Global Efforts:

- **European Union:** Drafting comprehensive AI regulation through the Artificial Intelligence Act.
- **United States:** Released a Blueprint for AI Bill of Rights to guide ethical AI use.
- **Japan:** Incorporates AI regulation in its Society 5.0 initiative.
- **China:** Implements ethical guidelines and specific laws for AI applications.

##### Way Forward:

To ensure AI's beneficial use, it's crucial to de-bias AI training, ensure transparency about AI capabilities and risks, protect user data and privacy, and adhere to ethical standards, advocating for global adoption of guidelines like the Bletchley Declaration. Proper management can help AI contribute positively to tackling major global challenges like climate change and pandemics.

#### Sickle Cell Disease (SCD) Treatment

**SOURCE: THE HINDU**

**PRIORITY: HIGH**

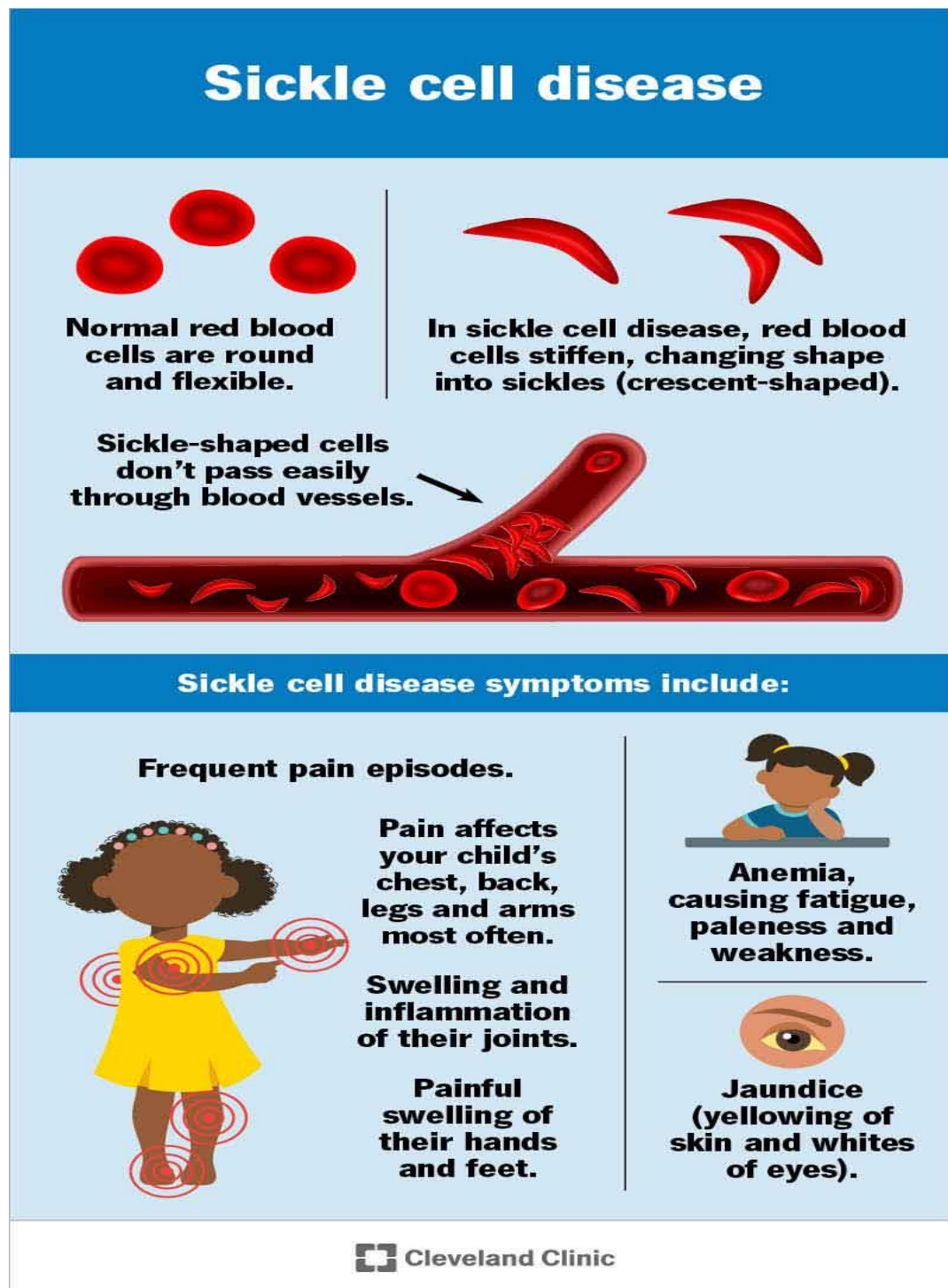
##### Context:

Amid the shortage of crucial medications for treating Sickle Cell Disease (SCD) in district health facilities, concerns are escalating about the difficulties encountered by individuals from marginalized Indigenous Tribal communities in managing SCD treatment.

##### What is Sickle Cell Disease (SCD)?

- **Sickle Cell Disease** is caused due to **genetic mutation** in which **red blood cells (RBCs) assume a sickle or crescent shape**.
- Red blood cells contain hemoglobin, a protein that carries oxygen. Healthy red blood cells are round, and they move through small blood vessels to carry oxygen to all parts of the body.
- This allows them to move easily through small blood vessels (capillaries) in your body to deliver oxygen to your organs and tissues.
- It is a genetic disorder characterized by the production of abnormally shaped red blood cells (RBCs), resembling a sickle.
- Sickle Cells lack the ability of easy mobility blocking blood flow to the rest of the body.

- This can lead to serious problems, including stroke, eye problems, infections, and episodes of pain called pain crises.
- Symptoms: Anemia, Pain crisis, or sickle crisis, Acute chest syndrome, Splenic sequestration (pooling) etc.
- Women and children are more vulnerable to the disease.
- **Prevalence:** It is common in regions with high malaria prevalence such as Sub-Saharan Africa, the Middle East, and India.



### Cure

- A bone marrow transplant is the only cure available for the disease.
- Gene therapy is also being explored as another potential cure

### CRISPR Technology for SCD Treatment

- **Gene Therapies Approved:** Casgevy and Lyfgenia, marking advancements in CRISPR-based treatments.
- **Treatment Process:** Involves modifying a patient's blood stem cells and reintroducing them after chemotherapy.
- **CRISPR in India:** Supported by the Council of Scientific and Industrial Research, focusing on utilizing CRISPR for treating SCD, currently in pre-clinical phase.

### Government Initiatives:

| No | Name of the scheme                                      | Aims                                                                                                                                      | Features                                                                                                                                                                                                    |
|----|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>National Sickle Cell Anaemia Elimination Mission</b> | 1. Affordable and accessible care to all SCD patients.<br>2. Ensure quality of care for SCD patients.<br>3. Reduce the prevalence of SCD. | <b>1. Eliminate sickle cell disease as a public health problem in India before 2047.</b><br>2. Three pillars strategy<br>a. Health promotion<br>b. Prevention<br>c. Holistic Management & continuum of care |
| 2. | <b>Ayushman Bharat- (AB PM-JAY)</b>                     | Free health insurance coverage for low income earners                                                                                     | Provides full treatment for Sickle Cell Disease, free of cost to its beneficiaries.                                                                                                                         |
| 3. | <b>Anaemin Mukta Bharat Strategy</b>                    | To strengthen the existing mechanisms and foster newer strategies for tackling anemia                                                     | It is implemented to reduce anemia among the six beneficiaries age group.<br><b>6*6*6 strategy to counter anemia.</b>                                                                                       |
| 4  | <b>Rights of Persons with Disabilities Act 2016</b>     | Welfare and treatment of disabled population                                                                                              | SCD is recognized as <b>one of the 21 "specified" disabilities</b> under the Act.                                                                                                                           |
| 5  | <b>The State Haemoglobinopathy Mission</b>              | By the government of M.P.                                                                                                                 | To tackle the challenges in screening and management of sickle cell disease.                                                                                                                                |

### Proposed Solutions and Strategies

- **Collaborative Efforts:** Involving healthcare providers, researchers, policymakers, and community stakeholders to enhance management.
- **Improving Access and Reducing Costs:** Essential to make treatments more accessible and affordable.
- **Support and Awareness:** Increasing education and creating supportive systems for patients and families.
- **Advancing Research:** For more efficient therapies, addressing both the complexity of SCD and funding limitations.

### Conclusion

- To tackle the challenges in treating SCD effectively, a comprehensive and collaborative approach is essential. This includes enhancing healthcare access, reducing treatment costs, raising awareness, supporting research, and ensuring psychological support for patients and their caregivers.

### Himachal Pradesh Implements Ban on Cotton Candy Due to Harmful Dye

SOURCE: THE HINDU

PRIORITY: HIGH

#### Context:

Recently, in response to the discovery of harmful dye in cotton candy, also known as candy floss, Himachal Pradesh has taken decisive action to safeguard public health. The ban, effective for one year, prohibits the production, sale, and storage of cotton candy within the state.

#### Background of the Ban

- Samples collected in Solan city revealed the presence of rhodamine-B, a dye primarily used in industries outside of food production.
- Rhodamine-B, though vibrant in color, is deemed unsafe for consumption under the Food Safety and Standards Act, 2006.
- The tests conducted at the Composite Testing Laboratory in Kandaghat confirmed the contamination of cotton candy with rhodamine-B.

#### Government Response

- **Atul Kaistha**, a food safety officer with the Municipal Corporation Solan, led the sample collection efforts.
- Upon confirmation of contamination, the **Himachal Pradesh government swiftly** implemented the ban on cotton candy.

#### Legal Framework

- **The Food Safety and Standards Authority of India (FSSAI)** strictly prohibits the use of rhodamine-B in food products.
- **The ban is enforced under Section 30(2)(a)** of the food safety act, with legal repercussions for those involved in the cotton candy business within the state.

#### Role of Authorities

- **M Sudha Devi, the Commissioner (Food Safety)** and Secretary Health of Himachal Pradesh, issued the notification imposing the ban.
- The government's proactive measures underscore its commitment to public health and safety.

#### National and Regional Context

- Similar bans on the use of dangerous colorants in food have been implemented in other Indian states like Karnataka, Tamil Nadu, and Goa.
- The ban reflects a broader concern for food safety and regulatory compliance across the country.

#### Conclusion

- Himachal Pradesh's ban on cotton candy demonstrates a firm stance against the use of harmful dyes in food products, prioritizing the well-being of its citizens.

#### Examples of Dangerous Colorants in Food and Their Health Impacts

##### Rhodamine-B:

- **Colorant:** Rhodamine-B, primarily used in textiles, paper, and leather industries.
- **Health Impact:** Consumption of food products containing rhodamine-B can lead to various health issues, including gastrointestinal problems, allergic reactions, and even carcinogenic effects.

**Sudan Red:**

- Colorant: Sudan Red, a synthetic dye commonly used in industrial applications.
- Health Impact: Sudan Red is a known carcinogen and can cause cancer with prolonged exposure. Additionally, it may result in organ damage and other serious health conditions.

**Melamine:**

- Colorant: Melamine, used illicitly to artificially boost protein content in food products.
- Health Impact: Ingesting food products contaminated with melamine can lead to kidney damage, urinary tract issues, and in severe cases, kidney failure. Children are particularly vulnerable to the harmful effects of melamine.

**Lead Chromate:**

- Colorant: Lead Chromate, a bright yellow pigment used in some food products.
- Health Impact: Lead chromate is highly toxic and can cause lead poisoning, affecting the nervous system, kidneys, and other organs. Children are especially susceptible to lead poisoning, which can lead to developmental delays and cognitive impairments.

**Amaranth (E123):**

- Colorant: Amaranth, a synthetic red dye.
- Health Impact: Amaranth has been associated with allergic reactions in some individuals, ranging from mild symptoms like hives and itching to more severe reactions such as asthma attacks. Long-term consumption of amaranth-containing products may pose additional health risks, although the extent of these risks is still under investigation.

**What Is The Hba1c Test And Why Is It Used To Check For Diabetes****SOURCE: DOWN TO EARTH****PRIORITY: HIGH****Context:**

- Diabetes has emerged as a major public health concern in India. With an **estimated 10.13 crore people diagnosed and 13.6 crore at risk of developing pre-diabetes**, early detection and management are critical. **The HbA1C test plays** a central role in this fight, offering a valuable tool for both diagnosing and monitoring diabetes.

**What is diabetes?**

- It is a **chronic disease and Non-Communicable Disease** that occurs either **when the pancreas does not produce enough insulin** or when the body cannot **effectively use the insulin** it produces.
- This leads to high blood sugar levels, which over time can damage nerves, blood vessels, and organs throughout the body.
- **Insulin Function:** Insulin is a hormone produced by the **pancreas** that helps regulate blood sugar levels by allowing cells to absorb glucose from the bloodstream for energy.

**Types of diabetes:**

- **Type 1 Diabetes:** The body's **immune system** attacks and destroys insulin-producing cells in the pancreas. This type typically manifests in childhood or young adulthood.
- **Type 2 Diabetes:** The body becomes resistant to insulin or doesn't produce enough. This is the most common type, **often developing in adults** but increasingly affecting children as well.

- **Gestational Diabetes:** This type develops **during pregnancy** in women who have never had diabetes before. Gestational diabetes **usually disappears after childbirth** but increases the risk of developing type 2 diabetes later in life.
- **Prediabetes:** With prediabetes, **blood sugar levels are higher than normal**, but not high enough for a type 2 diabetes diagnosis. If left unmanaged, prediabetes can progress to type 2 diabetes.

#### What is the HbA1c test and how does it work?

- The HbA1c test, also known as the **glycated hemoglobin test**, measures the percentage of red blood cells that have glucose (sugar) attached to them.
  - Hemoglobin is a **protein in red blood cells responsible for transporting oxygen** throughout the body.
- Normally, some sugar binds to hemoglobin; however, in individuals with diabetes or prediabetes, these levels are significantly higher.

#### HbA1c result and interpretation:

HbA1c levels are reported as a percentage of mmol/mol (which stands for millimoles per mole). Here's a general interpretation:

- **Below 5.7%:** Normal blood sugar level
- **5.7% to 6.4%:** Prediabetes
- **6.5% or higher:** Diabetes

#### Why is the HbA1c test used for diabetes diagnosis?

The HbA1c test gained recognition as a diagnostic tool in 2009 by the **American Diabetes Association**. Its advantages include:

- **Reflects Long-Term Control:** Unlike blood sugar tests that **fluctuate** based on recent meals, HbA1c offers a broader picture of glycemic control.
- **Convenience:** The test can be performed irrespective of when the last meal was consumed.
- **Standardized Results:** With advancements in testing procedures, HbA1c results are more standardized and reliable.

#### Limitation of the HbA1c test:

- **Not a standalone diagnostic tool:** While the HbA1c test is a valuable diagnostic tool, it might not be suitable for everyone. In certain cases, a doctor may recommend additional tests like a **fasting blood sugar test** for a more comprehensive diagnosis.
- **Certain conditions can affect accuracy:** Conditions like **anemia, pregnancy, and kidney disease** can sometimes influence HbA1c test results. In such cases, alternative methods for assessing blood sugar control might be necessary.
- **Doesn't capture blood sugar fluctuations:** The HbA1c test **provides an average and** doesn't necessarily reveal significant blood sugar spikes or dips that might occur throughout the day.

# HbA1c test levels



The glycated hemoglobin (HbA1c) test provides average blood glucose levels for the past 2 to 3 months. The following are the HbA1c test results ranges:



|                |                                      |
|----------------|--------------------------------------|
| Less than 5.7% | Normal range                         |
| 5.7% to 6.4%   | Prediabetes or Risk of hyperglycemia |
| 6.5% or Higher | Diabetes mellitus or Hyperglycemia   |

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## Who needs the HbA1c test and when?

- **The Indian Council of Medical Research (ICMR)** recommends HbA1c testing for all individuals above 30 years of age.
- Those with a **higher risk of developing diabetes**, such as individuals with obesity, a family history of diabetes, or a history of gestational diabetes and pregnant women, should be screened earlier.

## HbA1c TEST Vs. Blood sugar test?

- **HbA1c Test:** Measures average blood sugar control over 2–3 months.
- **Blood Sugar Tests:** Measure blood sugar levels at a specific point in time. There are two main types:
  - **Fasting blood sugar test:** Taken after not eating or drinking anything for at least 8 hours.
  - **Post-prandial blood sugar test:** Taken after a meal to assess how the body processes glucose.

## Conclusion

The HbA1c test serves as a valuable tool for **diagnosing and managing diabetes**. Understanding its strengths and limitations is crucial for both medical professionals and individuals at risk of diabetes. Early detection and proper management can help prevent complications associated with this chronic condition.

SAKHI

SOURCE: THE HINDU

PRIORITY: MEDIUM

Context:

**The Vikram Sarabhai Space Centre (VSSC)**, a key Indian Space Research Organisation (ISRO) facility has launched the 'SAKHI,' a versatile app designed to support Gaganyaan crew members during their mission.

#### SAKHI App

- The Space-borne Assistant and Knowledge Hub for Crew Interaction (SAKHI) is equipped to monitor astronauts' health, maintain communication with Earth, and manage dietary schedules.
- It serves as an essential tool for the crew, offering real-time assistance and access to necessary data.
- Strapped to astronauts' space suits, it allows for easy access and facilitates the maintenance of mission logs in various formats.

#### What does it do?

- **Spaceborne Knowledge Hub:** SAKHI will act as a comprehensive **digital library**, providing astronauts with instant access to **crucial technical information** during the mission.
- **Real-time Health Monitoring:** It will monitor astronauts' **vital health parameters** like blood pressure, heart rate, and oxygen saturation.
- **Seamless Communication:** App facilitates smooth communication between the crew (**up to three astronauts are planned for Gaganyaan**), the onboard computer, and ground-based stations at ISRO.
- **Crew Management Tool:** The app will assist astronauts in maintaining a mission log, allowing them to record experiences in various formats like **text, voice notes, and images**.
- **Biomedical Reminders:** It will act as a personal assistant, reminding astronauts about their **hydration schedules** (astronauts can lose fluids due to sweating in space even without physical activity), **dietary requirements** (specially formulated space food is provided), and sleep patterns, crucial for maintaining health in space where the sleep-wake cycle can be disrupted by **microgravity**.

### India's Samudrayaan Mission: A Leap Towards Deep Ocean Exploration

**SOURCE: THE HINDU**

**PRIORITY: MEDIUM**

#### Context:

India aims to send scientists into the deep ocean using Matsya6000 submersible under Samudrayaan Mission, capable of reaching depths of 6,000 meters. Earth Sciences Minister anticipates shallow-water testing by year-end and full deployment by 2025.

#### Overview of Samudrayaan Mission

- **Initiation:** Launched in 2021 as part of India's Deep Ocean Mission (DOM).
- **Objective:** To carry a crew of three to a depth of 6,000 meters in the ocean for exploration purposes in a vehicle called 'MATSYA 6000'.
- **Operational Period:** 12 hours, extendable to 96 hours in emergencies.
- **Development Agency:** National Institute of Ocean Technology (NIOT), Chennai, under the Ministry of Earth Sciences (MoES).



### Technical Specifications of Matsya6000

- **Design:** A self-propelled manned submersible named Matsya6000.
- **Capacity:** Designed to accommodate three people.
- **Endurance:** 12 operational hours, with 96 hours for emergencies.
- **Features:** Equipped with a suite of scientific sensors and tools.
- **Construction:** Made from a titanium alloy capable of withstanding pressures at 6,000 meters depth.

### Progress and Timeline

- **Projected Timeline:** From 2020–2021 to 2025–2026.
- **Current Status:** On track for shallow-water testing by the end of this year, as per Earth Sciences Minister Kiren Rijju.
- **Expected Deployment:** By the end of 2025, to conduct deep ocean explorations.

### Significance of the Mission

- **International Standing:** Aims to position India alongside countries like the U.S., Russia, China, France, and Japan, which have successfully carried out deep-ocean crewed missions.
- **Contribution to Science:** Enables direct observation and understanding of unexplored deep-sea areas.
- **Enhancement of Deep-Sea Capabilities:** Promotes the development of man-rated vehicle technologies for deep-sea exploration.

### Additional Developments by NIOT

- **Technological Advancements:** Development of 6000m depth-rated Remotely Operated Vehicle (ROV) and other underwater instruments such as the Autonomous Coring System (ACS), Autonomous Underwater Vehicle (AUV), and Deep Sea Mining System (DSM).

### Global Context and India's Position

- **Global Contributions:** India aims to join an elite group of nations with the capability for deep-ocean exploration.
- **New India 2030 Vision:** Recognizes the blue economy as a core objective, aligning with the UN's "Decade of Ocean Science" for 2021–2030."
- **Prime Minister's Science, Technology, and Innovation Advisory Council (PMSTIAC):** DOM is one of nine missions under PMSTIAC, highlighting the importance of sustainable resource extraction from the ocean.

### Conclusion

The Samudrayaan mission signifies a monumental step towards deep-sea exploration, enhancing scientific understanding and technological capabilities in oceanography. With its completion, India is set to advance its standing in the global arena of deep-ocean exploration, contributing significantly to the blue economy and sustainable ocean resource utilization.

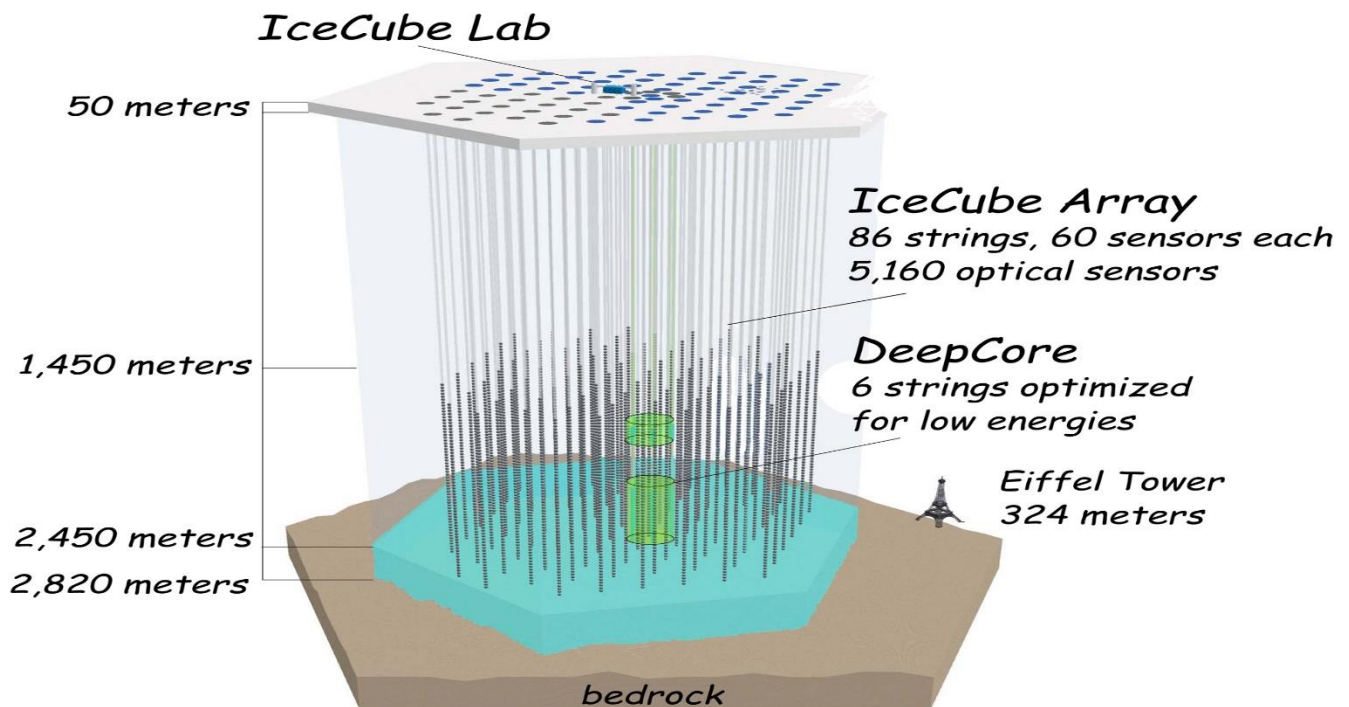
## IceCube Sees No Evidence of Sterile Neutrinos

SOURCE: THE HINDU

PRIORITY: LOW

### Context:

Recently, Neutrino scientists at IceCube in Antarctica didn't find the "sterile" neutrino they were looking for. This particle would have been a fourth kind of neutrino.



### What are Neutrinos?

- These are chargeless subatomic particles traveling close to the speed of light, very similar to an electron, but have no electrical charge and a very small mass, which might even be zero and they spin half.
- One of the most abundant particles in the universe.
- These are created in nuclear reactions like beta decay.
- Interact weakly with matter (also known as "ghost particles").
- Types → electron, muon, tau, plus their antiparticles.
- They can **change from one form to another as they travel**. This process is called neutrino oscillation and is an unusual quantum phenomenon.

### What are Sterile Neutrinos?

- These interact only with gravity, not the weak nuclear force.
- The sterile neutrino is even more difficult to detect and elusive than the ordinary neutrinos. The only way to detect it is when it is in the process of changing into another type of neutrino.

### What is the IceCube Neutrino Observatory?

- **Location: Amundsen–Scott South Pole Station, Antarctica** built deep underground or under ice/water to shield from other particles and reduce interference

- **Function:** Captures **Cherenkov radiation (characteristic blue glow)** detected by sensors these are faint signals produced when neutrinos interact with the matter (Interaction with a nucleus can produce secondary particles exceeding the speed of light in that medium).

#### Implications of the Recent Discovery

- Sterile neutrinos could have provided insights into dark matter and matter-antimatter asymmetry.
- Absence of sterile neutrinos suggests the search for new physics beyond the standard model remains elusive.

## ENVIRONMENT

### Global Sea Surface Temperature Records in 2024

#### SOURCE: DOWN TO EARTH

#### PRIORITY:HIGH

##### Context:

In February 2024, the average global sea surface temperature (SST) reached a record high of 21.06 degrees Celsius, marking the highest level recorded since 1979. This alarming trend underscores the significant impact of human activities and climatic changes on our oceans.

#### Global Sea Surface Temperature Records in 2024

- **Historical Highs:** In February 2024, the global sea surface temperature (SST) reached an unprecedented 21.06°C, surpassing the previous record of 20.98°C set in August 2023.
- **Ongoing Trends:** This increase marks the continuation of a worrying trend, with the oceans absorbing approximately 90% of the excess heat generated by greenhouse gases (GHGs).
- **Impact of GHGs:** Greenhouse gases like carbon dioxide, methane, ozone, and nitrous oxide are significant contributors to global warming, with the average global temperature now at least 1.2°C above pre-industrial levels.

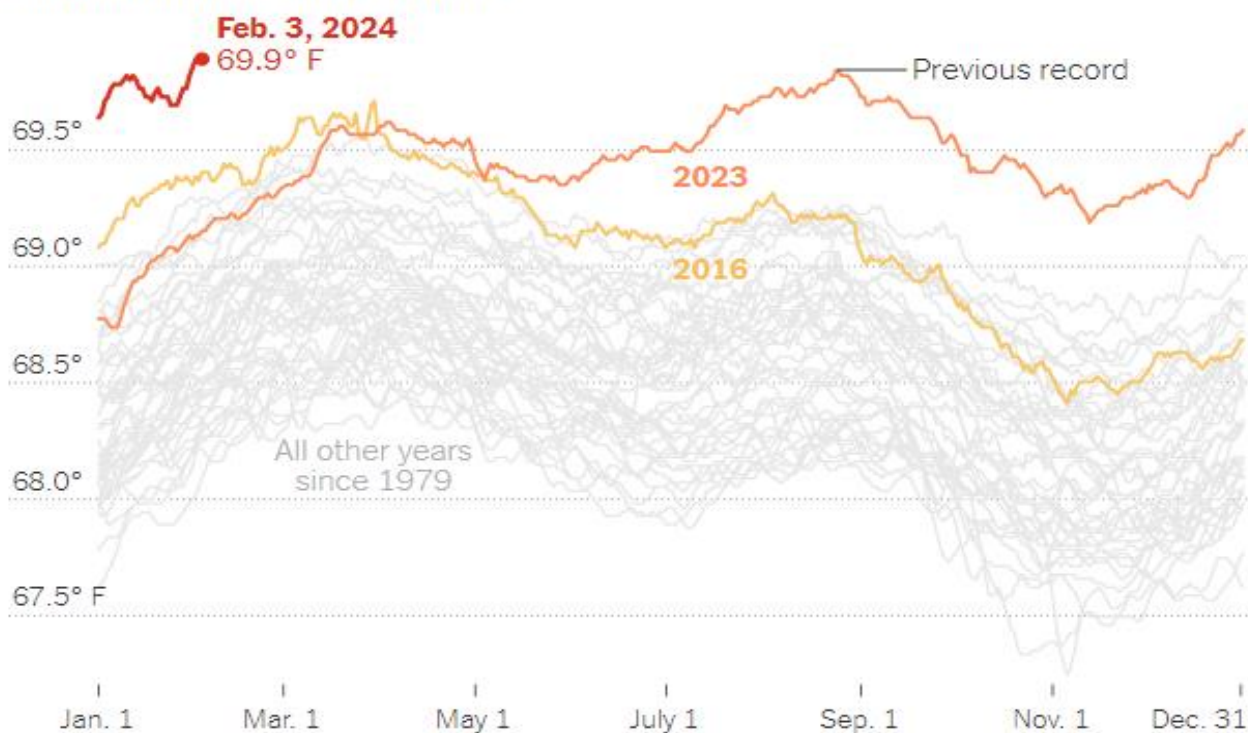
#### Factors Contributing to Ocean Warming

- **Human Activities:** Since the Industrial Revolution, human activities have significantly increased the levels of greenhouse gases (GHGs) such as carbon dioxide, methane, ozone, and nitrous oxide. These gases trap heat within the atmosphere, contributing to the global warming phenomenon. Over the years, this has led to a minimum average global temperature increase of 1.2 degrees Celsius above pre-industrial levels.
- **Absorption by Oceans:** Oceans play a critical role in regulating the earth's climate. Approximately 90% of the excess heat trapped by GHGs is absorbed by the oceans, which gradually increases their temperature. This absorption capacity has profound long-term effects on oceanic conditions and marine ecosystems.
- **El Niño:** The El Niño weather pattern, characterized by the abnormal warming of surface waters in the equatorial Pacific Ocean, exacerbates ocean warming and contributes to the rise in global surface temperatures. Its cyclical occurrence significantly influences global weather patterns and SSTs.
- **Weaker Winds:** Recent observations have noted weaker-than-average winds blowing off the Sahara Desert. Ordinarily, Sahara dust forms a protective layer over the Atlantic, shading the water and moderating ocean temperatures. However, with diminished wind strength, this natural "umbrella" is less effective, allowing more solar radiation to heat the ocean surface.

#### Impact of Rising Sea Surface Temperatures

- **Ocean Stratification:** Increased SST leads to heightened ocean stratification, where warmer, lighter, and nutrient-poor water layers atop denser, cooler, nutrient-rich water. This stratification disrupts the natural mixing of ocean layers, essential for nutrient and oxygen distribution, impacting marine life sustainability.
- **Threat to Phytoplanktons:** The lack of nutrient mixing due to stratification threatens phytoplankton populations, foundational to marine food webs. Phytoplankton are critical as they are consumed by zooplankton, which in turn feed a variety of marine animals. A decline in phytoplankton can lead to the collapse of marine ecosystems.
- **Marine Heat Waves:** Warmer oceans trigger marine heat waves (MHWs), where regional ocean temperatures soar above average levels for extended periods. Since 1982, MHWs have doubled in frequency and intensified, leading to widespread coral bleaching and altering the migratory patterns of aquatic animals.
- **Increase in Intensity of Cyclones:** Warmer ocean temperatures enhance evaporation rates and heat transfer from oceans to the atmosphere. This phenomenon fuels storms as they pass over warm waters, increasing their intensity. The result is more potent winds and severe rainfall, escalating the impact of storms when they make landfall.

### Daily Sea Surface Temperatures



### Possible Measures

#### Reducing Greenhouse Gas Emissions

- **Transition to Renewable Energy:** Accelerate the shift from fossil fuels to renewable energy sources such as solar, wind, and hydroelectric power to decrease carbon dioxide emissions.
- **Enhance Energy Efficiency:** Implement more stringent energy efficiency standards for buildings, vehicles, and industries to reduce overall energy consumption.
- **Carbon Pricing and Emissions Trading:** Establish carbon taxes or cap-and-trade systems to incentivize businesses to reduce their carbon footprint.

#### Ocean Conservation Initiatives

- **Marine Protected Areas (MPAs):** Expand the network of MPAs to safeguard marine ecosystems, allowing them to recover and maintain their roles in sequestering carbon and regulating ocean temperatures.
- **Sustainable Fishing Practices:** Promote and enforce sustainable fishing to prevent overfishing, which disrupts marine food webs and weakens ecosystem resilience against temperature changes.

#### Advanced Research and Monitoring

- **Climate Research Funding:** Increase funding for climate research to improve understanding of SST dynamics and develop more accurate predictive models.
- **Satellite Monitoring:** Utilize satellite technology to continuously monitor SST changes and their impacts on marine environments, enabling timely responses to adverse conditions.

#### Technological Innovations

- **Geoengineering Solutions:** Explore responsible geoengineering options such as ocean fertilization to enhance carbon sequestration or cloud seeding to increase albedo and reduce ocean heat absorption.
- **Climate-Resilient Infrastructure:** Develop infrastructure that can withstand the impacts of higher SSTs and associated weather events, such as stronger storm surges and increased coastal erosion.

#### Public Awareness and Community Action

- **Educational Campaigns:** Conduct global campaigns to raise awareness about the causes and consequences of rising SSTs and the importance of ocean conservation.
- **Community-Based Adaptation:** Support local community initiatives to adapt to changing ocean conditions, such as restoring mangroves and other natural barriers to protect shorelines.

#### International Collaboration and Policy Reform

- **Strengthen Global Agreements:** Reinforce international agreements like the Paris Agreement to ensure that countries commit to and achieve their emission reduction targets.
- **Technology Transfer:** Facilitate the transfer of green technologies to developing countries to help them leapfrog to cleaner, more sustainable systems without compromising economic growth.

#### Conclusion

Tackling the challenge of rising SSTs is critical for the health of our planet's oceans and the overall stability of the global climate system. The proposed measures require global commitment and cooperation to effectively address the multifaceted aspects of this pressing environmental issue. By implementing these strategies, we can hope to mitigate the adverse effects of rising SSTs and ensure a sustainable future for marine life and human communities alike.

### Understanding Environmental Federalism in India's Climate Action Efforts

**SOURCE: THE HINDU**

**PRIORITY: HIGH**

#### Context:

Environmental Federalism plays a pivotal role in addressing climate change, especially in a country as diverse and vast as India.

#### Environmental Federalism

- Environmental Federalism refers to how powers and responsibilities related to environmental management are divided between different levels of government—central, state, and local.

#### Evolution of India's Environmental Framework

- **Historical Overview:** India's approach to environmental governance has evolved significantly since the Constitution originally did not address it directly.

- **Key Amendments and Legislation:** The 42nd Amendment shifted jurisdiction over forests and wildlife to the Concurrent List. The 73rd Amendment tasked local governments with environmental duties. These changes, while centralizing legislation, called for decentralized execution at the state level.

#### State-Level Climate Governance

- **Need for State-Level Empowerment:** States play a crucial role in implementing climate targets but face challenges due to limited resources and reduced policymaking freedom. Increasing state involvement is essential due to the localized nature of climate impacts.
- **Challenges in Resource and Decision-Making Autonomy:** States often need central approval for natural resource management, limiting their autonomy. Recent mining regulations and changes in environmental assessment procedures have further reduced state powers in favor of central authority.
- **Fiscal Federalism and Resource Allocation:** The central government collects a significant portion of tax revenues, including non-shareable surcharges and cesses, reducing financial autonomy for states. This imbalance hinders effective state-level climate action.
- **Decentralization in National Environment Policy:** The National Environment Policy of 2006 promotes decentralization, advocating for shifting power to local authorities better positioned to tackle environmental issues at the local level.
- **Reforming State Action Plans for Climate Change (SAPCC):** States need to update their climate action plans and budgets to reflect local needs and conditions, similar to the initiatives taken by the Odisha government. This should include meaningful engagement with local communities.

#### Global South and India's Unique Challenges

- **Greater Impact on the Global South:** Countries in the Global South, including India, face bigger challenges from climate change.
- **India's Leadership Role:** India is leading discussions on global climate justice and developing action plans.
- **Domestic Policy Contradictions:** Despite these efforts, India's climate policy has contradictions. While the central government sets targets, the states have the responsibility to implement them, often with limited resources.

#### Proposed Reforms and Actions

- **Revise State Climate Plans:** States should update their climate action plans with dedicated budgets.
- **Enhance Local Participation:** Engaging local governments and communities, including farmers and tribals, can lead to more effective climate policies.
- **Strengthen Fiscal Federalism:** Adjusting fiscal policies can empower states and local bodies, incentivizing environmental improvements.
  - **Strengthening Fiscal Structures for Environmental Goals:** The recommendation by the 15th Finance Commission to allocate a portion of central taxes to ecological and forest conservation is a positive step but not adequate. More robust fiscal measures are needed to support environmental federalism.

#### Moving Forward

- **Balancing Centralization and Decentralization:** India needs a balanced approach that combines central guidance with state and local action.
- **Immediate and Long-Term Reforms:** Both immediate actions and structural reforms are essential for effective climate governance.

- **Reimagining Federalism:** A new approach is needed where states have the resources and flexibility to address climate change effectively while aligning with national goals.
  - **Adopting International Principles for Domestic Policy:** Principles of differentiated responsibilities and support for technology and finance mobilization, common in international debates, should be applied domestically to ensure equitable and effective climate actions across different states.

#### Institutional Reforms Proposed

- **Build Capacity at State Level:** Establish climate-focused agencies and departments within states.
- **Improve Coordination:** Enhance collaboration within states, between states, and with the central government.
- **Provide Incentives for Action:** Offer financial support and incentives for states to develop and implement climate initiatives.

#### Role of the Central Government

- **Supporting State Efforts:** The central government should offer analysis, policy ideas, and financial resources to help states tackle climate challenges.
- **Enhancing Coordination and Incentives:** Regular updates of state climate plans and central support for innovative state projects are crucial.

#### Way Forward

- **Boosting State Capacities:** States need to improve their ability to deal with climate issues by creating specialized agencies and hiring expert staff.
- **Promoting Learning and Collaboration:** States should form networks for sharing ideas and strategies, potentially leading to more unified and effective climate action.

### UN Warns of Climate Change Impact On Women Run Farms In Poor Nation

**SOURCE: DOWN TO EARTH**

**PRIORITY: MEDIUM**

#### Context:

Recently, the United Nations (UN) issued a stark warning highlighting the disproportionate impact of climate change on women farmers in developing countries.

#### Women in Agriculture

Women play a crucial role in global agriculture, contributing significantly to food production and security. However, they often face various challenges:

- **Dependence on Agriculture:** Women play a crucial role in agriculture across the developing world, often as primary producers or household managers responsible for food security.
- **Limited Resources:** Women farmers frequently lack access to resources like credit, technology, and drought-resistant seeds, hindering their ability to adapt to changing weather patterns.
- **Gender Inequality:** Existing social norms and discriminatory practices often restrict women's land ownership rights, further limiting their capacity to cope with climate challenges.

#### Climate Change as a Threat Multiplier

Climate change manifests in various ways, impacting agricultural productivity and livelihoods:

- **Extreme Weather Events:** Increased frequency and intensity of droughts, floods, and heat waves disrupt agricultural cycles, leading to crop failures and food insecurity.
- **Water Scarcity:** Erratic rainfall patterns and rising temperatures threaten water availability, essential for irrigation and agricultural activities.
- **Land Degradation:** Soil erosion and loss of fertility due to climate change further compound the challenges faced by women farmers.

#### Case Study: The Struggles of Women Farmers in India

India provides a compelling example of the gendered impact of climate change on agriculture:

- **Vulnerability:** Women constitute nearly 30% of the agricultural workforce in India, primarily engaged in subsistence farming. Climate change poses a significant threat to their livelihoods and household food security.
- **Limited Access to Resources:** Patriarchal norms often restrict women's land ownership, hindering their ability to invest in climate-resilient practices like water conservation or drought-resistant seeds.
- **Financial Constraints:** Lack of access to credit limits women's capacity to adopt new technologies or diversify their crops.

#### Breaking the Cycle: Empowering Women for Climate Resilience

- **Land Ownership Rights:** Securing land ownership rights for women empowers them to make crucial decisions about land management and invest in sustainable practices.
- **Skill Development and Training:** Providing training on climate-smart agriculture techniques like water harvesting, sustainable soil management, and drought-resistant varieties equips women to adapt to changing conditions.
- **Financial Inclusion:** Enabling access to microloans and financial services allows women farmers to invest in necessary technologies and manage climate shocks.
- **Community-Based Initiatives:** Creating and supporting women-led self-help groups and farmer cooperatives fosters knowledge sharing and facilitates collective action for adaptation.

#### Examples of Initiatives in India

- **Mission Shakti:** This initiative by the Government of India aims to empower women self-help groups (SHGs) through financial assistance and skill development programs.
- **Krishi Vigyan Kendras (KVKs):** These government-backed institutions offer farmer training programs, including gender-specific workshops that equip women with climate-smart agricultural practices.

#### Looking Ahead: A Collaborative Effort

Addressing the unequal impact of climate change on women farmers requires a multi-pronged approach:

- **Policy Reform:** Governments must enact policies that promote gender equality in land ownership, access to resources, and decision-making processes.
- **International Cooperation:** International organizations and developed nations can play a vital role by providing financial and technical assistance to support developing countries in empowering women farmers.
- **Community Engagement:** Investing in community-based initiatives that empower women farmers and foster knowledge sharing is crucial.

#### Conclusion

Climate change poses a serious threat to global food security, with women farmers in developing countries bearing the brunt of its impact. By addressing gender inequality and empowering these women with resources, knowledge, and land rights, we can build a more resilient and equitable future in the face of climate challenges.

### UNEA-6 Report "Global Resources Outlook 2024 - Bend the trend: Pathways to a Liveable Planet as Resource Use Spikes"

**SOURCE: DOWN TO EARTH**

**PRIORITY: MEDIUM**

#### Context:

The UNEA-6 report, titled "Global Resources Outlook 2024 - Bend the trend: Pathways to a Liveable Planet as Resource Use Spikes," reveals a concerning trend: global production and consumption of material resources has grown more than three times over the last 50 years. This unsustainable pattern is a major driver of the triple planetary crisis of climate change, biodiversity loss, and pollution.

#### UNEA: United Nations Environment Assembly

- **Function:** UNEA is the world's highest-level decision-making body on environmental matters.

- **Membership:** All 193 UN member states are members of UNEA.
- **Meetings:** The Assembly convenes every two years to set the global environmental agenda and define policy responses to address environmental challenges.

### The Issue: Unsustainable Consumption and its Impact

- Global consumption of resources has tripled in the past 50 years, driven largely by demand in upper-income countries.
- This excessive resource extraction and processing is a major contributor to the **triple planetary crisis**: climate change, biodiversity loss, and pollution.
- Over 55% of greenhouse gas emissions and 40% of airborne particulate matter pollution come from resource extraction and processing.
- Agricultural and forestry activities contribute significantly to land degradation, water stress, and greenhouse gas emissions.

### Unequal Consumption and Global Inequality

The report exposes a significant disparity in resource consumption between rich and poor nations:

- Upper-middle-income countries have significantly increased their resource use in recent decades.
- Low-income countries consume six times less material compared to wealthy nations, despite generating less environmental impact.
- This highlights the issue of environmental justice – the burden of unsustainable practices falls disproportionately on developing nations.

### A Call for Change: Transitioning to a Sustainable Future

The report emphasizes the need for a drastic reduction in resource use to achieve the following:

- **Environmental benefits:** Reduce greenhouse gas emissions by up to 80% and mitigate climate change.
- **Economic benefits:** Decouple economic growth from resource consumption and promote sustainable development.
- **Social benefits:** Reduce inequality by ensuring all nations have access to the resources they need while minimizing environmental damage.

### Pathways to a Sustainable Future

The report proposes a shift towards a **circular economy**, where resources are used efficiently and waste is minimized. This includes:

- **Refuse, Reduce, Reuse, recycle (4Rs):** Implementing strategies to minimize waste generation and maximize resource recovery.
- **Resource-efficient technologies:** Developing and adopting technologies that use fewer resources to achieve the same outcomes.
- **Sustainable business models:** Encouraging businesses to adopt practices that minimize environmental impact.
- **Supportive policies:** Governments need to enact policies that incentivize sustainable practices and discourage wasteful consumption.

### Conclusion

The **Global Resources Outlook 2024** is a wake-up call for the world. It highlights the urgent need to transition towards a more sustainable future.

### Black Carbon

**Source:** The Hindu

**Priority:** Medium

#### Context:

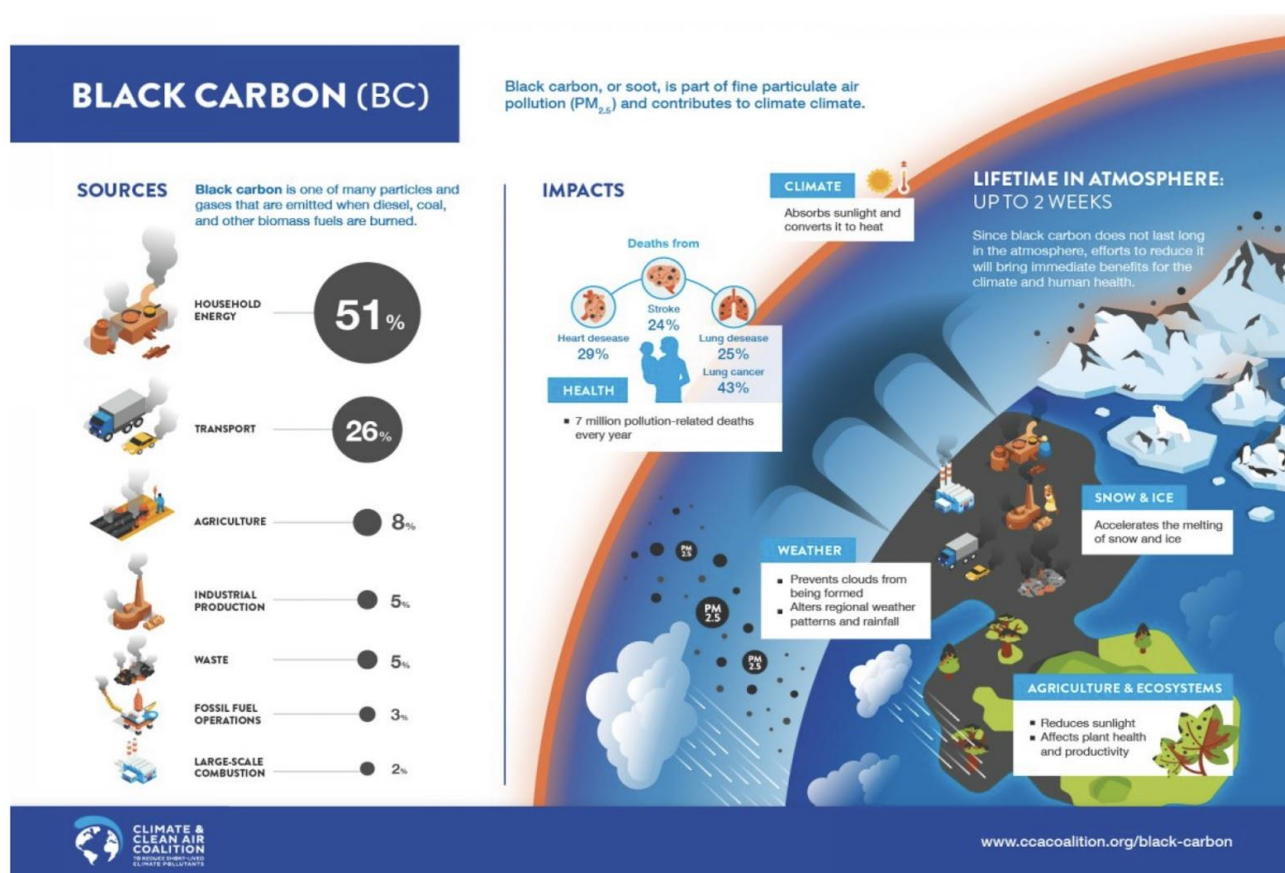
Carbon dioxide and black carbon mitigation strategies are important to achieve India's climate change mitigation goals.

#### About Black Carbon

- Black carbon, commonly known as soot, is a component of fine particulate air pollution (PM<sub>2.5</sub>). It is formed by the incomplete combustion of wood and fossil fuels, a process which also creates carbon dioxide (CO<sub>2</sub>), carbon monoxide, and volatile organic compounds.
- Black carbon warms the atmosphere because it is very effective at absorbing light. It exacerbates warming of the air and surfaces in regions where it is concentrated, altering weather patterns and ecosystem cycles.
- Black carbon lasts only days to weeks in the atmosphere but has significant direct and indirect impacts on the climate, snow and ice, agriculture, and human health.

### Sources of Black Carbon

- **Main source – Burning biomass**, such as cow dung or straw, in traditional cook stoves.
- **Other Sources:** coal use in households and industry, and use of diesel for transportation and stationary power generation.
- **According to a 2016 study**, the **residential sector contributes 47%** of India's total black carbon emissions. Industries contribute a further 22%, diesel vehicles 17%, open burning 12%, and other sources 2%.



### Impact of Black Carbon

#### Impact on health

- **There is a direct link between** exposure to black carbon and a higher risk of lung disease, heart disease, birth complications, and premature death.
- It can also lead to **premature deaths in children due to acute lower respiratory infections such as pneumonia.**

#### Impact on climate

- It also **influences cloud formation** and impacts regional circulation and rainfall patterns.

- When deposited on ice and snow, black carbon and co-emitted particles **reduce surface albedo** (the ability to reflect sunlight) and **heat the surface**. This effect is estimated to have contributed to 0.04°C of warming since 1750.

#### Impact on ecosystems

- It can deposit on plant leaves and increase their** temperatures.
- Dim sunlight that reaches the earth, **and interfere with rainfall patterns**.
  - In combination with tropospheric ozone, black carbon also contributes to over 50 million tonnes of staple crop losses globally each year.

#### Measures taken by government.

| Source                      | Solution/ Step Taken by government                                                                                                                                                                                                                                                                                                                          |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Household Energy</b>     | <ul style="list-style-type: none"> <li>Providing clean fuel, <b>Pradhan Mantri Ujjwala Yojana (PMUY)</b> provides free liquefied petroleum gas (LPG) connections to households below the poverty line.</li> </ul>                                                                                                                                           |
| <b>Agriculture</b>          | <ul style="list-style-type: none"> <li>Promotion of Agricultural Mechanization for in-situ management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi</li> </ul>                                                                                                                                                           |
| <b>Industrial Pollution</b> | <ul style="list-style-type: none"> <li>Shifting of brick kilns to zig-zag technology for reduction of pollution. Industrial units shifting to piped natural gas.</li> </ul>                                                                                                                                                                                 |
| <b>Transportation</b>       | <ul style="list-style-type: none"> <li>Introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending (E20).</li> <li>Leapfrogging from <b>BS-IV to BS-VI norms for fuel and vehicles from 1<sup>st</sup> April, 2020</b>.</li> <li>Faster Adoption and Manufacturing of Electric Vehicles (FAME) phase-2 scheme.</li> </ul> |
| <b>Waste Management</b>     | <ul style="list-style-type: none"> <li>Prohibiting the open burning of municipal solid waste.</li> <li><b>Sustainable Alternative towards Affordable Transportation (SATAT)</b>, has been launched to set up 5000 Compressed Bio-Gas (CBG) production plants and make CBG available in the market for use.</li> </ul>                                       |

#### Other measures:

- National Clean Air Programme** - targets to achieve a 40% reduction in particulate matter concentrations by 2025-26.
- The Central Pollution Control Board (CPCB)** has identified 131 cities based on ambient air quality levels **exceeding national ambient air quality standards**, and cities with a million plus population. **City specific Clean Air Action Plans** have been prepared and rolled out for implementation in these cities.

#### GEOGRAPHY

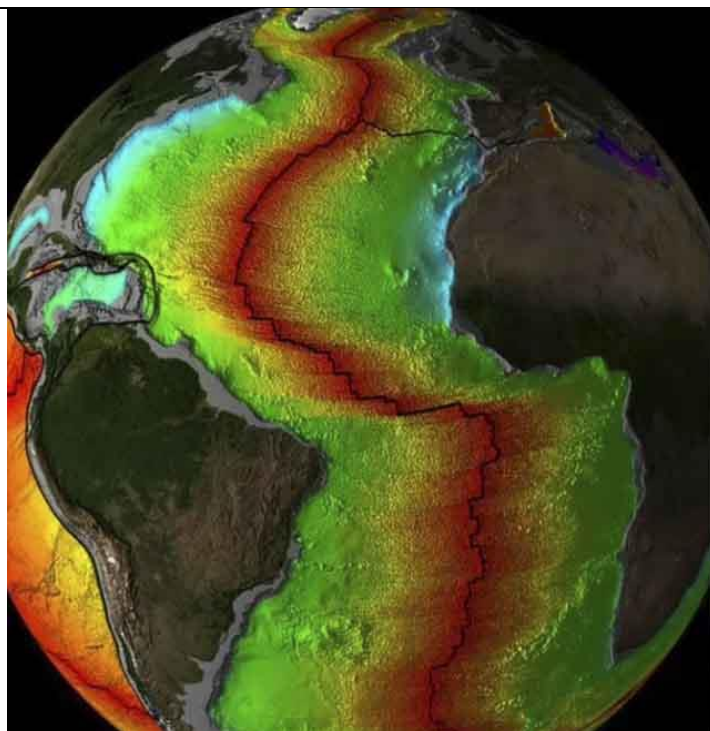
##### Discovery of the Subduction Zone Beneath Gibraltar Strait

**SOURCE: THE TIMES OF INDIA**

**PRIORITY: HIGH**

#### Context:

Scientists have discovered a subduction zone developing beneath the Gibraltar Strait, indicating potential geological changes for the Atlantic Ocean.



### Understanding Subduction Zones

- Subduction zones occur where two tectonic plates converge, with one plate diving under the other into the mantle at a rate of 2–8 centimeters per year.

### Types of Convergence

- Convergence can happen between an oceanic and continental plate, two oceanic plates, or two continental plates.

### Process and Effects

- The process is driven by density differences, leading to significant geological events such as earthquakes, tsunamis, volcanic eruptions, and landslides.

### Tectonic Plates Overview

#### Division of Earth's Plates

- The Earth's lithosphere is categorized into continental and oceanic plates, including seven major and various minor plates.

#### Major Plates Listed

- Antarctica and surrounding oceanic plate
- North American plate (with Caribbean islands demarcation)
- Pacific plate
- India–Australia–New Zealand plate
- Africa and eastern Atlantic floor plate
- Eurasia and its oceanic plate

#### Minor Plates Specified

- Cocos Plate: Between Central America and Pacific plate
- Nazca Plate: Between South America and Pacific plate
- Arabian Plate: Covering the Saudi Arabian landmass
- Philippine Plate: Between Asiatic and Pacific plate

### Geological Phenomena in Subduction Zones

#### Seismic Activity

- Plates may lock at shallow depths, accumulating stress that releases as massive earthquakes upon breaking.

#### Volcanic Activity

- The descending plate's interaction with mantle pressures and temperatures triggers magma formation, leading to volcanic eruptions.

## Future of the Atlantic Ocean

### The 'Ring of Fire' Phenomenon

- A subduction zone termed the 'Ring of Fire' has been identified beneath the Gibraltar Strait, with potential to reshape the Atlantic Ocean.

### Predictions and Implications

- Predicted to expand westwards over the next 20 million years, this process could lead to the gradual closure of the ocean basin.

### Advanced Research and Simulation

- Through advanced computer models, researchers, including Joao Duarte from the University of Lisbon, have detailed the formation and anticipated evolution of this subduction zone, offering insights into its early stages and future impact on the Atlantic Ocean's geography.

### Conclusion

- This concise overview captures the critical facts surrounding the discovery and implications of a subduction zone beneath the Gibraltar Strait, underlining its significance in geological research and future oceanic transformations.

## HISTORY

### Pakistan National Day To Be Celebrated In Delhi: What Was The Lahore Resolution, Which It Marks

SOURCE: THE HINDU

PRIORITY: MEDIUM

#### Context:

- The upcoming celebration of **Pakistan National Day in New Delhi** reignites discussions about the historical events that led to the creation of Pakistan.

#### What was the Lahore Resolution of 1940?

- The resolution mentioned concept of a united homeland for Muslims and recommended the creation of an independent Muslim state.
- The Lahore Resolution, was drafted by **Muhammad Zafarullah Khan** and adopted by the **All-India Muslim League in 1940**, formally called for the establishment of an independent state for the Muslims of India.
- While the resolution itself **doesn't mention the word "Pakistan,"** it laid the groundwork for the creation of a **separate Muslim nation**.

#### All-India Muslim League (AIML):

- **Formation:** Established on 30 December 1906 in Dhaka, Bangladesh during the annual meeting of the **All India Muslim Education Conference in 1906**.
- **Founders:** The proposal to create a political party dedicated to safeguarding the interests of Muslims in British India was put forth by the Nawab of Dhaka, Khwaja Salimullah, and seconded by Hakim Ajmal Khan.
  - Founding members included Khwaja Salimullah, Vikar-ul-Mulk, Syed Amir Ali, Syed Nabiullah, Khan Bahadur Ghulam, and Mustafa Chowdhury.
  - **Muhammad Ali Jinnah joined the league in 1913.**
- **Importance:** The party led the movement for the creation of a separate nation for Muslims starting from 1935 until achieving its goal with the formation of Pakistan.

#### Objectives of the Resolution:

- **Demand for Independent States:** Creation of independent states in areas with Muslim majorities, particularly in the North-Western and Eastern zones of India. These states would have autonomous and sovereign governing bodies.
- **Minority Safeguards:** The resolution emphasized the need for strong constitutional safeguards for Muslims in minority areas within India.
  - This included protection of their religious, cultural, economic, and political rights through consultation and representation.

- **Lead-up to the Resolution:** Prior to the 1930s, most Muslims sought improved representation and protection within a united India. The separate electorate system introduced in the 1935 Government of India Act was a step in that direction.
- However, growing anxieties and a desire for complete autonomy fueled a movement for separation. The Lahore Resolution became a culmination of these sentiments, marking a significant shift in the **Muslim League's stance**.

#### The Role of Muhammad Ali Jinnah:

- Muhammad Ali Jinnah emerged as a key figure during the Lahore session. He firmly advocated for the **Lahore Resolution as a blueprint for establishing two separate countries: one for Hindus and one for Muslims**.
- Historian Stanley Wolpert suggests that Jinnah's speech at the session **effectively ended hopes for a unified India**.

#### Impact and Legacy:

- **The Lahore Resolution** became a cornerstone for the creation of Pakistan. It served as a rallying cry for the Muslim population and cemented Jinnah's position as the leader of the Pakistan movement.

#### Observing Pakistan National Day in New Delhi:

- The celebration of Pakistan National Day at the Pakistan embassy in New Delhi signifies the ongoing diplomatic ties between the two nations.
- It provides a platform for cultural exchange and dialogue. While the specific date for this year's celebration remains unconfirmed, it typically falls around March 23rd.

#### Conclusion

The Lahore Resolution of 1940 stands as a landmark event in the history of the Indian subcontinent. It fundamentally altered the political landscape and paved the way for the creation of Pakistan.

## INTERNATIONAL RELATIONS

### India's Focus on Africa: Enhancing the Global South Vision

**SOURCE: THE INDIAN EXPRESS**

**PRIORITY: MEDIUM**

#### Context:

- India's engagement with Africa is gaining momentum, underlined by state visits and strategic partnerships. This focus on Africa is part of India's broader vision to strengthen its role in the Global South, advocating for the interests of developing countries on the global stage.

#### Understanding India's Vision for the Global South

- **Advocacy Role:** India positions itself as a voice for the Global South, pushing for their issues to be heard in international forums like the G20.
- **South-South Cooperation:** India encourages collaboration among developing nations, sharing technologies and resources to aid sustainable development.
- **Climate Change Mitigation:** Initiatives like the International Solar Alliance highlight India's commitment to promoting renewable energy in the Global South.

#### What is Global South?

- The Global South refers to developing countries, characterized by lower GDPs and higher poverty rates, including nations in Africa, Latin America, and parts of Asia.
- The term "Global South" typically refers to the regions of the world that are economically less developed compared to the "Global North."
- It encompasses countries in Africa, Latin America, Asia (excluding Japan), and Oceania.
- The concept is not purely geographical but rather denotes a socio-economic and political perspective, highlighting the historical and ongoing disparities between the industrialized, wealthier nations of the Northern Hemisphere and the poorer, developing nations of the Southern Hemisphere.

**Historical Context:**

- The term Global South was first coined in 1969 by political activist Carl Oglesby.
- The term has evolved to represent political and economic similarities among these countries, advocating for a united front in global discussions.

**Benefits for India from Prioritizing Africa**

- **Economic Opportunity:** With significant investments and trade, Africa is a crucial market for India, offering avenues for mutual economic growth.
  - Indian investments in Africa reached \$98 billion in 2023, with trade totalling \$100 billion. Forty-two African countries are the second-largest recipients of all credit extended by India. Around 200 developmental projects have been completed in the region.
- **Strategic Partnerships:** Africa's role in global forums is increasingly significant, making it a valuable ally for India's global aspirations.
- India's advocacy for African representation in forums like the G20 and UNSC reflects the shared vision for inclusive global governance.
- In this regard, India has achieved several diplomatic victories, such as the African Union's (AU) inclusion in the G20 in September 2023.
- India's growing ties with Africa can help counterbalance China's rising influence on the continent (especially in the Horn of Africa).
- **Youth Engagement:** Africa's young population presents opportunities for collaboration in education, technology, and innovation. Africa's significant growth rate of 3.8 per cent and its young population, with 60 per cent under the age of 25, estimated to reach 1.1 billion people by 2040.
  - Africa's significant growth rate of 3.8 per cent and its young population, with 60 per cent under the age of 25, estimated to reach 1.1 billion people by 2040.
- **Abundant Reserves:** Africa possesses significant reserves of critical minerals crucial for technologies like solar panels and batteries, making it a vital partner for India to access these resources.
- **Advancing Sustainability Goals:** Cooperation between India and Africa in securing critical minerals supports global sustainability goals by facilitating the transition to cleaner energy technologies, contributing to efforts to combat climate change and environmental degradation.

**Addressing Challenges**

- **Frugal Innovation:** India can share low-cost, scalable solutions to common challenges in the Global South.

- **Inclusive Leadership:** A rotating leadership model could ensure a collaborative approach within the Global South.
- **Capacity Building:** India can support skill development and education in Africa, fostering economic growth and stability.

#### Challenges in Leading the Global South

- **Internal Development:** Critics suggest India should address its own development challenges before leading others.
- **Diverse Needs:** Balancing the varied priorities of Global South countries can be complex.
- **Global Partnerships:** Maintaining strong ties with developed nations while advocating for the Global South poses a delicate balance.
- **Balancing Global Partnerships:** India's strong economic ties with developed nations like the US and Japan can create a conflict between advocating for the Global South and maintaining these vital relationships.
- eg India might shy away from pushing for stricter trade regulations that could potentially harm its exports to developed countries.
- **Credibility on Climate Change:** India is the world's third-largest emitter of CO<sub>2</sub>, despite low per capita CO<sub>2</sub> emissions. This weakens its position when advocating for stricter climate action within the Global South.

#### Conclusion

India's engagement with Africa is crucial for realizing its Global South vision. By focusing on **mutual economic growth, strategic partnerships, and sustainable development**, India and Africa can navigate the changing global landscape together, achieving shared prosperity and a stronger voice in international forums.

### Insurgency in Balochistan

**SOURCE: THE HINDU**

**PRIORITY: MEDIUM**

#### Context:

Recently, Pakistani security forces repelled a militant attack near Gwadar port in Balochistan province.

#### About Balochistan

- **Size and Population:** Balochistan is Pakistan's largest yet least populated and poorest region.
- **Strategic Importance:** Rich in natural resources like oil, crucial for Pakistan's economy.
- **Historical Conflicts:** Since 1948, the province has witnessed insurgencies, severe state repression, and a persistent Baloch nationalist movement.



### Background of the Insurgency

- **Pre-Independence Scenario:** In 1947, Balochistan consisted of four princely states: Kalat, Kharan, Las Bela, and Makran.
- These states had three choices—merge with India, join Pakistan, or remain independent.
- Influenced by Muhammad Ali Jinnah, three states joined Pakistan, but Kalat chose independence.
- Despite initial support from Jinnah for Kalat's independence, external pressures and a memorandum from the British challenged Kalat's viability as an independent state.
- **Forced Integration:** In March 1948, Pakistan's military action led Kalat to merge with Pakistan.

### Insurgency and Discontent

- **Cause of Unrest:** The forceful annexation of Kalat sparked resistance among the Baloch people, viewed as a betrayal of their autonomy and cultural identity.
- **Insurgency Movements:** Multiple uprisings for independence from Pakistan were met with strong governmental suppression.
- **External Factors:** Involvement of external actors, such as alleged support from the Taliban regime and retaliatory actions from neighboring countries like Iran and Afghanistan, has further complicated the situation.
- **Economic Marginalization:** Despite its vast size and wealth in minerals, Balochistan remains impoverished, contributing minimally to Pakistan's GDP.
- **Threat to Infrastructure Projects:** Militant attacks not only endanger the lives of security forces but also pose a significant risk to vital infrastructure projects like the China-Pakistan Economic Corridor (CPEC) and the Gwadar Port.
- **Ethnic Tensions and National Cohesion:** The insurgency exacerbates ethnic tensions and undermines national cohesion within Pakistan. Baloch nationalist sentiment, fueled by longstanding grievances and perceived marginalization, continues to drive support for armed resistance..

### India's Stand on Balochistan

- **Geopolitical Complexity:** India's involvement in Balochistan is influenced by regional stability and Indo-Pak relations.
- **Allegations of Interference:** Pakistan accuses India of supporting Baloch separatism, a claim India denies.
- **Support for Self-Determination:** India advocates for the Baloch people's rights while emphasizing non-interference in Pakistan's internal matters.
- **Diplomatic Balancing:** India's position on Balochistan is a careful act, maintaining concern for human rights while managing relations with Pakistan.

### Summary

The insurgency in Balochistan is a complex issue rooted in historical grievances, geopolitical tensions, and the struggle for autonomy and resources. The region's strategic significance, coupled with its history of conflict and repression, underscores the challenges facing efforts to resolve the unrest. India's stance, characterized by a cautious approach to balancing human rights concerns with diplomatic relations, reflects the intricate dynamics at play in South Asia's geopolitical landscape.

### Sweden's NATO Membership: A Turning Point for Indo-Pacific Dynamics

## SOURCE: THE DIPLOMAT

PRIORITY: MEDIUM

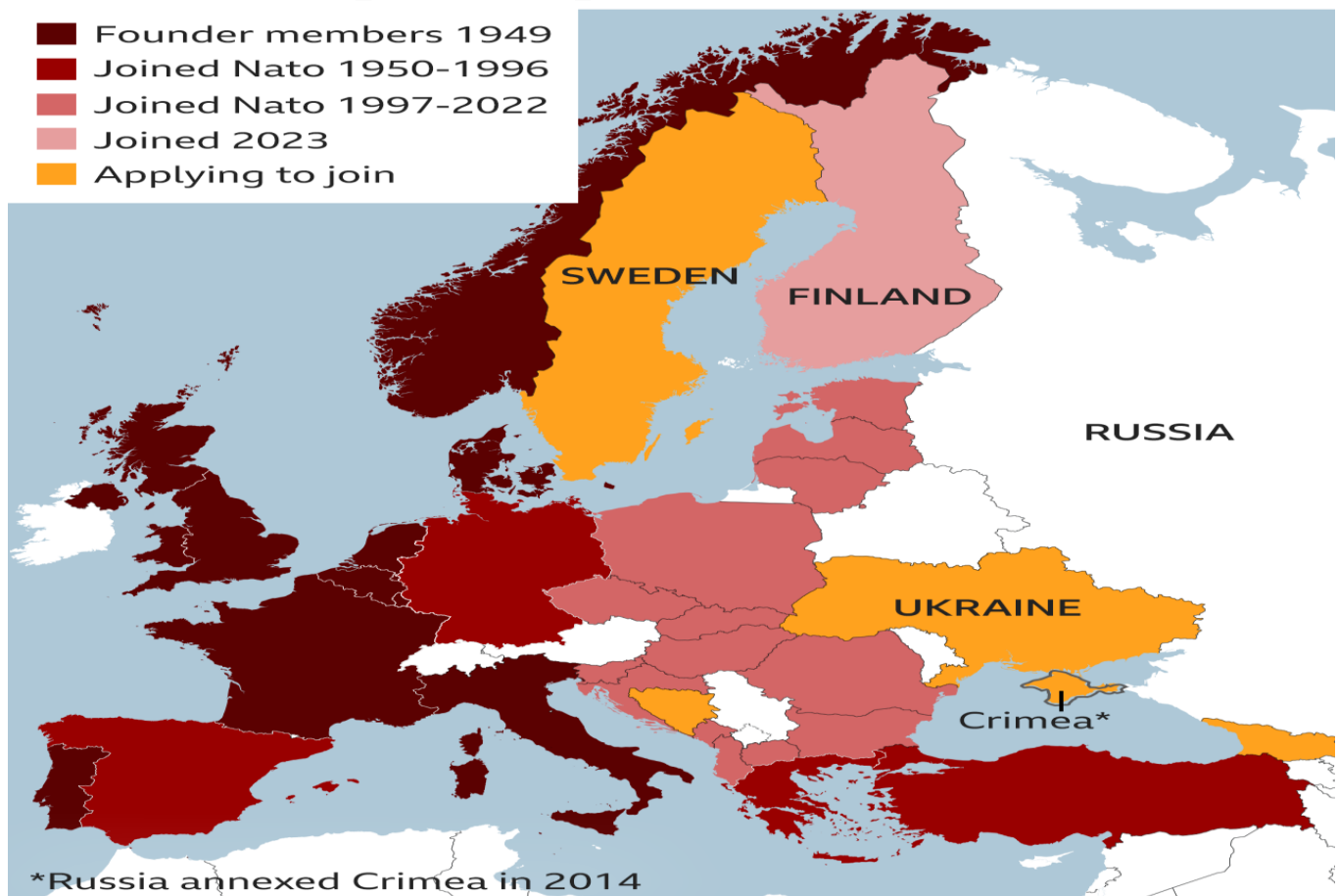
**Context:**

- On March 7, 2024, Sweden became the **32nd member of the North Atlantic Treaty Organization (NATO)**, marking a significant shift in its foreign policy and impacting the global security landscape.
- Sweden's application for NATO membership encountered some delays, mainly due to objections from Turkey and Hungary eventually received approval.

**About NATO**

| Parameter                  | Details                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Formation Year & HQ        | Formed in 1949, headquarters in Brussels, Belgium                                                                                                                                                                                                                                                                                                                                                                 |
| Members                    | 30 member countries as of 2022                                                                                                                                                                                                                                                                                                                                                                                    |
| Founding Members           | United States, United Kingdom, Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal                                                                                                                                                                                                                                                                                        |
| Article 5 of NATO          | An armed attack against one or more members is considered an attack against all members. This has been invoked once, following the September 11, 2001 attacks in the United States.                                                                                                                                                                                                                               |
| International Partnerships | Euro – Atlantic Partnership Council, Mediterranean Dialogue (fosters security and stability in the Mediterranean by enhancing relations between participating countries and NATO Allies.), the Istanbul Cooperation Initiative (offers non-NATO countries in the broader Middle East region the opportunity to cooperate with NATO, aiming to enhance regional security), and the Partnership for Peace programs. |

## Nato's European expansion since 1949



Source: Nato

B B C

### NATO +

- "NATO plus" refers to a security arrangement of NATO and the five treaty allies of the U.S. — Australia, New Zealand, Japan, Israel, and South Korea as members — to enhance "global defence cooperation" and win the "strategic competition with the Chinese Communist Party".
- NATO Plus is not an officially recognised or established concept within NATO.

### The End of Swedish Neutrality

- Sweden's journey to NATO membership signifies the end of its long-held stance of neutrality.
- This transition was accelerated by the security challenges posed by Russia, particularly the Ukraine invasion in 2022, prompting Sweden to seek greater security assurances through NATO.
- This move not only strengthens NATO's position in the Baltic and Arctic regions but also signifies a shift in the European security paradigm, with potential ramifications for the Indo-Pacific.

### NATO's Eastward Gaze and the Indo-Pacific

- **Strategic Concerns:** NATO's strategic interest in the Indo-Pacific has been growing, driven by concerns over China's expanding influence and its implications for global security.
- **Enhanced engagement:** Sweden's accession to NATO could facilitate the alliance's engagement with the region, possibly leading to a more coordinated approach in addressing the challenges posed by China.
- The alliance's increased focus on the region could see Sweden participating more actively in security dialogues and collaborations, potentially aligning more closely with the United States; stance on China.

- **Intensified Rivalry:** This shift may have implications for the region's strategic balance, possibly intensifying the geopolitical rivalry.
- This development may encourage Sweden to develop its own strategy for the Indo-Pacific, enhancing its role in promoting a rules-based international order.
- **Maritime Security:** Sweden's NATO membership could also impact maritime security in the Indo-Pacific, a region fraught with territorial disputes and strategic competition, particularly in the South China Sea and the Taiwan Strait.
- Sweden may play a role in ensuring the security of sea lines of communication, crucial for global trade and energy supplies.
- **Defense Exports:** Potential of increasing its defense exports to the Indo-Pacific region. Collaborations in military technology and equipment, such as fighter jets, could see a boost, aligning with the region's increasing security needs. However, this could also contribute to the regional arms race and heighten tensions with China.

#### Sweden and India: A Case Study in Diplomatic Navigation

- **Balancing Non-Alignment:** India's engagement with NATO members, including Sweden, showcases how it navigates its security and diplomatic commitments amidst global tensions.
- **Countering Aggression:** Despite its stance on non-alignment, India has been enhancing its security alliances to address the threat posed by Chinese aggression.
- **Impact of Sweden's NATO Membership:** Sweden joining NATO could deepen Indo-Swedish ties, particularly in defense and intelligence sharing, fostering a collective stance against common security threats.

#### Conclusion: A New Era in Global Security Dynamics

Sweden's NATO membership represents a pivotal moment in global security, with far-reaching implications for the Indo-Pacific region. As NATO turns its gaze eastward, the Indo-Pacific stands at the crossroads of emerging geopolitical tensions and collaborations. The integration of Sweden into NATO not only reshapes the European security landscape but also signals a shift towards a more interconnected and potentially contested global order. The challenge for the international community will be to navigate these changes in a way that promotes stability, peace, and a rules-based international system.

This analysis aims to provide UPSC candidates with a comprehensive understanding of the strategic implications of Sweden's NATO membership, particularly for the Indo-Pacific region, highlighting the intricate interplay between regional and global security dynamics.

#### Ties that Epitomise India's Neighbourhood First Policy (India-Bhutan Ties)

**Source:** The Hindu

**Priority:** Medium

##### Why in News:

Recent PM visit to Bhutan to receive "**Order of the Druk Gyalpo**" Bhutan's highest civilian award.

##### Order of the Druk Gyalpo Award

- As per ranking and precedence established, the Order of the Druk Gyalpo was instituted as the decoration for lifetime achievement and is the pinnacle of the honor system in Bhutan, taking precedence over all orders, decorations and medals.

- The award recognizes Prime Minister Modi's contribution to strengthening India-Bhutan friendship and his people centric leadership. The citation added that the award also honours India's rise as a global power under his leadership, and celebrates Bhutan's special bond with India.

### Background of India – Bhutan Relations

- Diplomatic relations between India and Bhutan were established in 1968.
- The basic framework of India- Bhutan relations has been the Treaty of Friendship and Cooperation signed in 1949 between the two countries, which was revised in February 2007.
- India and Bhutan share a unique and time-tested bilateral relationship, characterized by utmost trust, goodwill and mutual understanding.

### India-Bhutan Relations

#### Mutual Respect and Trust

- Despite vast differences in size and population, India and Bhutan view each other as equals, fostering a relationship built on trust and respect for sovereignty and identity.
- India's commitment to respecting Bhutanese identity, unique religious practices, and economic aspirations has deepened the bond between the two nations.

#### Economic Cooperation

- Since Bhutan's first Five Year Plan in 1971, India has closely partnered with Bhutan in its socio-economic development in line with the priorities of the people and Government of Bhutan.
- India has been a key development partner, contributing significantly to Bhutan's 12th Five Year Plan with a focus on projects aligned with Bhutanese priorities.
- India and its business firms are expected to play a pivotal role in **Gelephu Mindfulness City project**, aligning with Bhutan's sustainable development goals.

#### Hydropower cooperation

- Hydropower cooperation has been the anchor of bilateral relations, with India and Bhutan jointly developing and commissioning hydroelectric projects. Eg. **600 MW Kholongchhu project, 1,020 MW Punatsangchhu-II hydropower project**.
- This cooperation not only supplies clean electricity to India but also contributes significantly to Bhutan's revenue, helping it graduate out of the Least Developed Country status.

#### Educational and cultural ties

- India has been a key destination for Bhutanese students seeking higher education, with over 1000 scholarships provided annually by the Government of India.

#### Development Assistance

- India provides substantial financial and technical assistance to Bhutan for infrastructure projects, education, health, and capacity building. Eg. **development assistance of 5000 crores to Bhutan's 12th FYP**.

#### Cultural and Buddhist links

- A number of Bhutanese pilgrims travel to Bodh Gaya, Rajgir, Nalanda, Sikkim, Udayagiri, and other Buddhist sites in India.



### Issues and Challenges

**Perception of Dependence:** A perception exists in Bhutan that India might exert undue influence on its internal affairs. India must be mindful of Bhutan's sovereignty and concerns.

**Profitability of Hydropower Projects:** Bhutan has concerns regarding the profitability of its hydropower projects due to India's increasing focus on renewable energy sources.

**China Factor:** China's growing economic and diplomatic engagement with Bhutan is a concern for India. Both nations need to strengthen their partnership to address this challenge.

### Way Forwards

**Economic Diversification:** India can assist Bhutan in diversifying its economy beyond hydropower, promoting other sectors like tourism and agriculture.

**People-to-People Contact:** Encouraging cultural exchanges, student exchange programs, and tourism can further strengthen the bond between the people of both nations.

**Addressing Bhutan's Concerns:** India needs to be sensitive to Bhutan's concerns about dominance and work towards a more equitable partnership.

**Joint Efforts on Security:** Continued cooperation on border management and regional security issues is crucial for maintaining stability in the Himalayas.

### Conclusion

India and Bhutan share a longstanding and special relationship characterized by close **historical, cultural, and economic ties**. The bilateral relationship between India and Bhutan is governed by the principles of **friendship, cooperation, and mutual benefit which is crucial to tackle today's global level challenges**.

### China-Backed Cyberespionage

**Source:** THE HINDU

**Priority:** Medium

#### Context:

Recently, U.S., U.K. and New Zealand have accused China of state-backed cyberattacks targeting governments, journalists, corporations, and activists.

### Advanced Persistent Threat 31 (APT 31)

alleged cyber espionage activities conducted by Advanced Persistent Threat 31 (APT 31), also known by aliases such as Zirconium, Violet Typhoon, Judgment Panda, and Altaire. Identified by the US and UK as operating under China's Ministry of State Security, APT 31 has been implicated in various high-profile cyber attacks, including those targeting entities critical of China's policies.

#### China-backed Cyberespionage

APT 31's alleged cyber espionage efforts have encompassed a broad spectrum of targets, key among them being:

- **Politicians and Government Officials:** Specifically those who have expressed criticism towards China.
- **Journalists and Media Organizations:** To potentially manipulate or intercept journalistic content.
- **Human Rights Activists and Democracy Advocates:** To monitor and possibly disrupt their activities.
- **Strategically Important Companies:** Within defense, telecommunications, and manufacturing sectors.
- **Academics and Researchers:** Those working on sensitive topics related to China.
- These targets reflect the strategic interests and perceived threats to China, with the intent of gaining a competitive edge or silencing dissent.

#### Techniques involved:

- **Spear-Phishing Emails:** Utilizing malicious links or attachments to gain unauthorized access.
- **Exploitation of Software Vulnerabilities:** Leveraging flaws like those found in Microsoft Exchange Server.
- **Malware Deployment:** Designed to evade antivirus detection.
- **Credential Theft and Password Spraying:** To access and control victim accounts.
- **Supply Chain Attacks:** Infiltrating third-party software providers to reach primary targets.

#### Impact

- **Compromise of Sensitive Data:** Intellectual property and personal information have been exposed.
- **Business Disruption and Financial Losses:** Target companies face operational and financial setbacks.
- **Intimidation and Silencing of Dissent:** Critics and activists find themselves at heightened risk.
- **Erosion of Trust in Technology:** The integrity of the global supply chain is questioned.
- **Heightened Geopolitical Tensions:** Strains in China's relationships with the US, UK, and their allies escalate, possibly leading to economic and diplomatic sanctions.

#### Global Concerns:

- The incidents highlight broader global concerns about cybersecurity threats from **state-sponsored actors** and emphasize the need for enhanced cybersecurity measures and international cooperation.

#### Implications:

- The accusations and denials could have lasting implications for **international relations, trade, security cooperation, and diplomatic engagements**, as affected countries reassess their cybersecurity strategies.

#### International Responses and Reactions

- In response to these activities, the US and UK have highlighted the need for a cohesive international strategy to counteract these threats, emphasizing the importance of holding the perpetrators accountable.

- China has rejected these accusations, pointing to the surveillance and cyber capabilities of the US and UK, advocating for enhanced international cooperation in cybersecurity.

### Conclusion

The situation surrounding APT 31 represents a complex facet of international relations and cybersecurity in the modern world. It illustrates the ongoing battle for digital supremacy and the delicate balance between national security and global cooperation. As tensions continue to rise, the global community remains watchful and prepared for the potential ramifications of this ongoing cyber conflict.

## Russia Faces Backlash Over UN Veto on North Korea Sanctions Monitoring

Source: The Hindu

Priority: Medium

### Context:

- Russia is facing increasing criticism for using its veto power to effectively terminate official U.N. monitoring of sanctions on North Korea during an investigation into alleged arms transfers between Moscow and Pyongyang.

### History of Sanctions on North Korea

- UNSC imposed sanctions on North Korea after first nuclear test explosion in 2006 and tightened them over the years to cut funds and curb its nuclear and missile programmes.
- The last sanctions resolution was adopted by the UNSC in 2017.

### Russia's Stand:

- Russia's veto prevented the **renewal of the panel of experts** responsible for investigating violations of sanctions.
- Russia has defended its veto by asserting that UN sanctions on North Korea were impeding dialogue and peace efforts on the Korean peninsula.
- Claimed that the sanctions had failed to enhance regional security.

### Implications:

- Will undermines the **effectiveness and credibility of international sanctions** against North Korea.
- Arms transfers allegations raises alarm about illicit arms transfers and **potential violations of international norms on arms control and non-proliferation**.
- Impact on regional security in Northeast Asia.
- The expiration of the expert panel's mandate without renewal due to the veto **raises questions about the U.N.'s ability to effectively monitor and enforce sanctions compliance globally**.

### Veto Power:

The United Nations Security Council has five members who serve on a rotating basis (UNSC). Different political parties in India are divided on the issue. Political parties have utilized this status to exert veto power since independence. The United Nations Security Council's five permanent members can veto or reject any substantive resolution. A member's abstaining vote does not influence whether or not the resolution is accepted. Procedural votes do not affect the veto authority. The Security Council's five permanent fellows have veto power. The following are examples:

1. China
2. France
3. Russia
4. Great Britain
5. The United States.

### Conclusion

Russia's veto of the U.N. panel monitoring sanctions on North Korea undermines global sanction enforcement efforts and raises significant concerns about regional security and international norms on arms control.

### 5000 Indians forced into cyber-slavery in Cambodia

Source: INDIAN EXPRESS

Priority: Medium

#### Context:

Recently, it was found that over 5000 Indian nationals have been engulfed in a cyber-slavery racket operating out of Cambodia, where they are being forced to engage in fraudulent activities targeting victims back in India.

#### About the News

- Indian nationals, primarily from southern India, were lured to Cambodia under false pretenses of data entry jobs but were coerced into carrying out cyber fraud schemes targeting individuals back in India.
- This involved scams through phone calls, online chats.
- Those who resisted faced physical abuse and confinement, highlighting the dire conditions under which they were living.

#### What is Cyber Slavery?

Cyber slavery, also known as digital slavery, is a modern form of exploitation that uses digital means to coerce or deceive individuals into performing labor or other services under exploitative conditions. Unlike traditional slavery that involves physical restraint, cyber slavery operates in the virtual realm, posing unique challenges for detection and prevention.

#### Rescue Efforts:

- Ministry of Home Affairs (MHA), Ministry of External Affairs (MEA) and the Indian Cyber Crime Coordination Centre (I4C)**, have initiated a rescue strategy to bring back those trapped.
- Organizations like the Non-Resident Indian Forum of the Government of Karnataka (NRIFK) and local law enforcement agencies has been instrumental in facilitating these rescues.

#### Indian Diaspora in South –East Asia

- Large scale Indian emigration took place in 19th – 20th centuries because of colonialism through indenture or Kangani system.
- Indians roughly constitute about 8% to 9% of total population in Malaysia & Singapore. While in Myanmar & Indonesia, they are only about 4% & 0.5% of total population.
- Recent trends indicate that present Indian migration includes professionals working in the fields of IT, education, and technology etc.
- Indian communities contribute to the vibrant cultural mosaic of Southeast Asia through festivals, cuisine, dance, music, and art.
- Complex immigration laws, visa regulations, and work permit requirements** can pose challenges for Indian people seeking employment or residency in Southeast Asian countries.

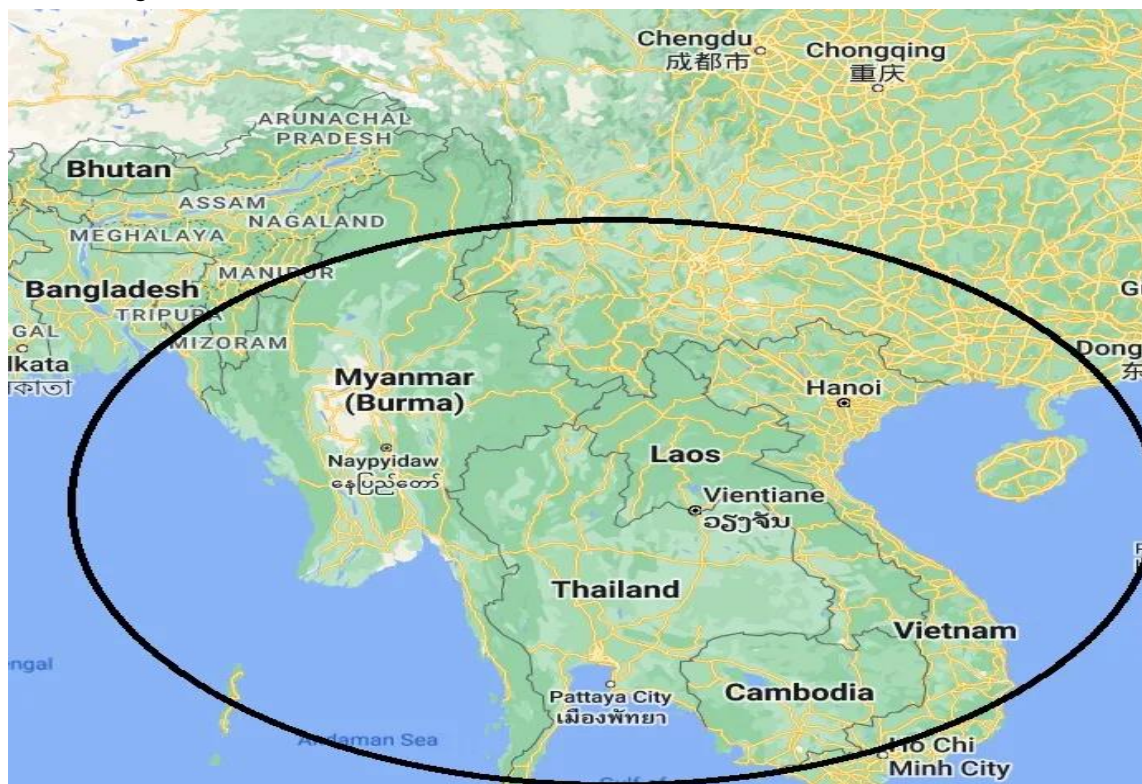
#### India – Cambodia Relations

- Historically, India-Cambodia relations dates back to the beginning of C.E. or perhaps even before when Hindu and Buddhist religious and cultural influences emanated out of India to Cambodia & greater region of South East Asia.
- Cambodians are predominantly Buddhist but they retain a strong influence of Brahminical rituals and mythology.

- The magnificent structure of Angkor Wat temple, built between 12th to 14th centuries, is a glorious testimony of pervading influence of temple architecture of India.
- Indian influences are also seen on the earlier temples of Cambodia such as Preah Vihear dedicated to Lord Shiva built from late 9th century onwards, Angkor Thom, Bayon, Ta Phrom, Sambor Prei Kuk and other historical sites.

### Political Relations

- In the 1950s, India was associated with the International Control Commission on Indo-China.
- India's contribution as Co-Chairman of this Commission came in for widespread appreciation in Cambodia.
- Post colonial era, Prime Minister Jawaharlal Nehru visited Cambodia in 1954.
- After the collapse of the **Khmer Rouge regime**, India was the first country to recognize the new government and reopened its Embassy in 1981.
- In the context of India's '**Act East**' policy and the ASEAN, Cambodia is an important interlocutor and a good partner.
- Contemporary times have witnessed expansion of cooperation in diverse fields such as institutional capacity building, human resource development and extension of financial assistance in infrastructure projects, social security projects and capacity building in defence.
- From Cambodian side, Prime Minister Hun Sen has visited India many times; also participated in the ASEAN-India Commemorative Summit and as Guest of Honour at the Republic Day Parade 2018 along with other ASEAN Leaders.



### Conclusion

Efforts by Indian authorities and organizations to rescue victims underscore the importance of international collaboration in combating such crimes. Additionally, the historical and cultural ties between India and Cambodia underscore the need for continued cooperation to address contemporary challenges and strengthen bilateral relations.

### ART & CULTURE

#### GI Tag

SOURCE: THE HINDU

PRIORITY: MEDIUM

**Context:**

Recently, the Geographical Indications Registry in Chennai, Tamil Nadu has given the Geographical Indication (GI) tags to a number of products from various states.

**product which received GI tag:**

| Product                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Image                                                                               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Cuttack Rupa Tarakasi:</b> | <ul style="list-style-type: none"> <li>• <b>Silver Filigree:</b> It is a delicate metalwork craft.</li> <li>• <b>Historical Origins:</b> Archaeological evidence suggests filigree incorporation into jewelry as <b>early as 3500 BCE in Mesopotamia</b>, continuing today as Telkari work.               <ul style="list-style-type: none"> <li>○ Historians suggest it <b>may have arrived in Cuttack from Persia</b> through Indonesia about 500 years ago via maritime trade routes.</li> </ul> </li> <li>• <b>Craftsmanship:</b> It showcases <b>intricate and finely detailed designs</b>, reflecting its artisanal expertise.</li> <li>• <b>Cultural Exchange:</b> There are similarities between the craftsmanship of Silver Filigree and that found in <b>Indonesia</b>, indicating potential cultural and trade exchanges.</li> <li>• <b>Maritime Influence:</b> The tale of <b>Ta-Poi highlights maritime exchanges</b>, with evidence indicating jewelry and gem exchanges between Kalinga and Indonesia.</li> <li>• <b>Heritage Recognition:</b> It holds significant cultural and historical value, contributing to Cuttack's identity as a center for traditional craftsmanship</li> </ul> |  |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Banglar<br/>Muslin</b>             | <ul style="list-style-type: none"> <li>Exquisitely fine handloom textile from Bengal, known for exceptionally high thread count (300–600). Highlights India's rich textile heritage and traditional craftsmanship.</li> <li>This finest sort of muslin is made of cotton, which are spun to create threads that maintain tensile strength at counts higher than any other cotton products.</li> <li>Original muslin was produced solely from a cotton plant called, Phuti Karpas, that grew exclusively along the banks of a certain stretch of the Brahmaputra River.</li> <li>Tragically, the industry was deliberately erased by past colonial rulers, especially the East India Company and replaced with their machine-made fabrics in the 19th century.</li> </ul> |    |
| <b>Narsapur<br/>Crochet<br/>Craft</b> | <ul style="list-style-type: none"> <li>Intricate crochet lacework from Narsapur, Andhra Pradesh. Showcases unique handicraft skills and cultural heritage</li> <li>Crochets are beautifully crafted with cotton thread and it is believed that the women of the farming community of this region started creating highly attractive artefacts from colourful lace, about 150 years ago.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                       |  |
| <b>Ratlam<br/>Riyawan<br/>Lahsun</b>  | <p>Special variety of garlic from Ratlam, Madhya Pradesh. Recognizes unique agricultural produce and biodiversity of a specific region.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                      |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Ambaji White<br/>Marble</b>       | <ul style="list-style-type: none"> <li>Formed under the earth's crust due to intense pressure and heat.</li> <li>Ambaji White Marbles comes in white color with black Texture on It. It is Indian Stone and no chemical processing is required. (Gujarat)</li> </ul>                                                                                                                                                                                                                                                                         |    |
| <b>Tripura Risa<br/>Textile</b>      | <ul style="list-style-type: none"> <li>One of the garments worn by tribal women in Tripura is called Risa.</li> <li>It is usually five feet in length and is wrapped around the upper body.</li> <li>Some of the designs are called 'kosom pali', 'khamjang' etc.</li> <li>To weave a risa, weavers require cotton yarn in different colours, especially in the colour red, which is most commonly used.</li> <li>The Reang community usually weave Risa primarily in black yarns, whereas the Debbarma community uses red yarns.</li> </ul> |   |
| <b>Hyderabad<br/>Lac<br/>Bangles</b> | <ul style="list-style-type: none"> <li>Lad bazaar is the main production centre for lac bangles.</li> <li>The craft originated over 500 years ago during the Mughal period.</li> <li>The craft flourished over the decades and was patronized by many royal families.</li> <li>The artisan skilfully embellishes the bangle with precious and semi-precious stones.</li> <li>This recognition promises to enhance the livelihood of over 6000 artisan families.</li> </ul>                                                                   |  |

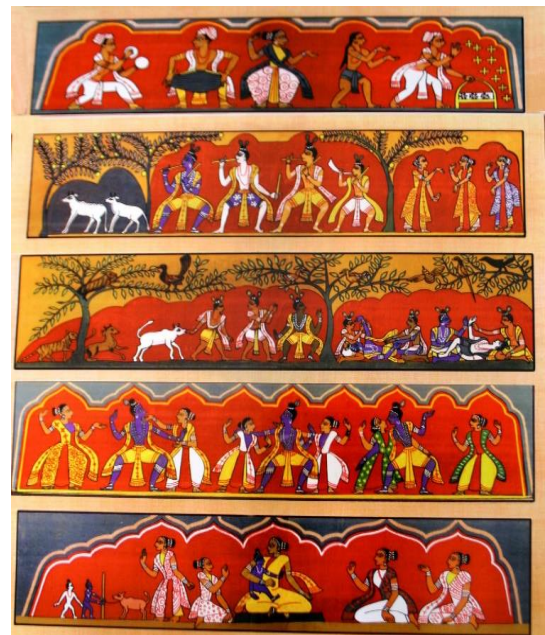
### Majuli Mask of Assam

- It developed in response to Neo-Vaishnavism, initiated by Srimanta Sankardeva in the 15th century.
- These masks were developed for it to be used in the Bhaona's (Traditional drama of Assam).
- The art of making masks was prevalent in Satra community for centuries.
- Made in different varieties and sizes as they are mainly divided into different categories: 'Mukha bhaona' (covers the face); 'Lotokoi' (extends to the chest) and, 'Cho Mukha' (head and body mask).



### Assam Majuli Manuscript Painting

- The manuscripts are painted on handmade paper, which is treated with a mixture of cow dung and earth to create a smooth surface.
- The paintings are usually done in black and white, although some may have small areas of colour.
- The artists who create these paintings are known as **Sattriya artists**, and they are members of the **Neo-Vaishnavite monasteries of Majuli**.
- Illustrate stories from Hindu epics like Ramayana, Mahabharata, and the Bhagavata Purana.
- Three distinct styles of manuscript painting: Gargayan script, Kaithall, and Bamunia, flourish in this region.



### GI Tag: Ensuring Product Authenticity and Protection

- **Definition:** A geographical indication (GI) tag denotes a **name or sign used** on certain products corresponding to a specific geographical location or origin.
- **Protection and Authorization:** The GI tag ensures that **only authorized users** or those residing in the geographical territory can use the product name.
  - It safeguards against imitation and unauthorized use by others.

- **Validity:** A registered GI is valid for 10 years, providing long-term protection and recognition of the product's geographical origin.
- **Legal Framework:** The Geographical Indications of Goods (Registration and Protection) Act, 1999 governs the registration and protection of geographical indications in India.
  - It aligns with the **WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)**.
- **International Recognition:** The importance of safeguarding industrial property and geographical indications is recognized under the **Paris Convention**, emphasizing their **integral role within intellectual property rights**.

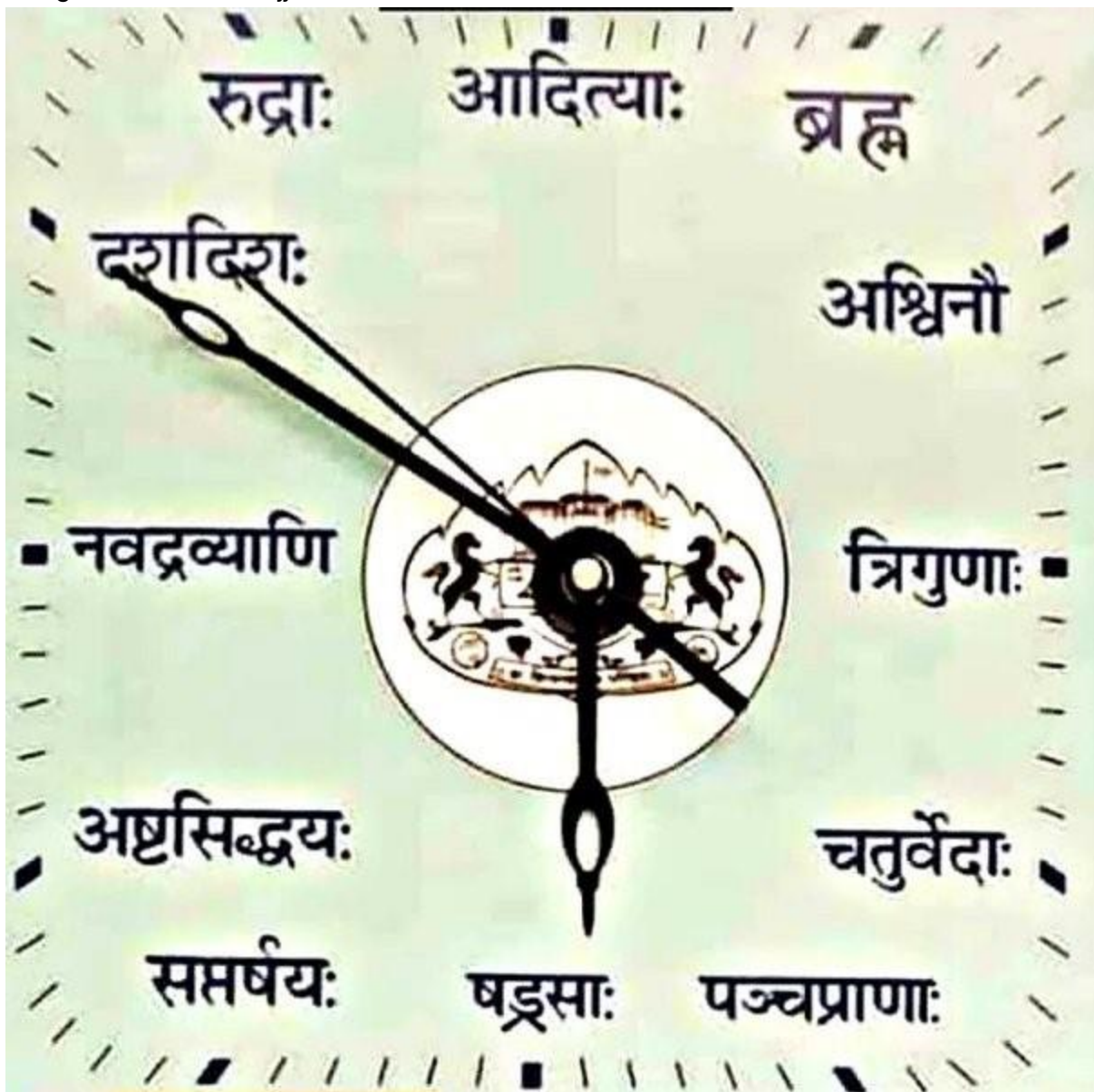
## Vikramaditya Vedic Clock

SOURCE: LIVE MINT

PRIORITY: MEDIUM

### Context:

Prime Minister recently inaugurated Vikramaditya Vedic Clock based on the Indian 'panchang' (almanack) in Ujjain.



### Vikramaditya Vedic Clock

- A Vedic clock has been mounted on an 85-foot tower within Jantar Mantar in Ujjain.
- Based on Indian 'panchang' calculations.
- It will calculate time from one sunrise to another.

- Period between the two sunrises will be divided into 30 parts whose one hour consists of 48 minutes according to ISD.
- Reading will start from 0:00 with the sunrise functions for 30 hours (an hour of 48 minutes)
- Provides information on planetary positions, Muhurat, Nakshatra, solar eclipse, lunar eclipse, astrological calculations, and predictions.
- It also indicates Indian Standard Time (IST) and Greenwich Mean Time (GMT).

#### Why Ujjain

- According to experts, the standard time of the world was determined from Ujjain 300 years ago.
- For a long time, Ujjain has been considered as the centre of time calculation. As it is located at the precise point of intersection with the zero meridian and the Tropic of Cancer.

### Nana Jagannath Shankarseth

**SOURCE: INDIAN EXPRESS**

**PRIORITY: MEDIUM**

#### Context:

Maharashtra government has decided to rename Mumbai Central station after Nana Jagannath Shankarseth.



#### About Nana Jagannath Shankarseth

- Described as the “architect” of Mumbai (Bombay).
- Social reformer, educationist, and philanthropist.
- First Indian to be nominated to the Legislative Council of Bombay.
- Founder of the Bombay Association in 1852.
- He championed the cause of Women education.
- Established the Native School of Bombay (1849), which later became the esteemed Elphinstone College.
- Member of the committee that propelled India’s first train project connecting Boribunder and Thane in 1853.
- Shankarseth was instrumental in founding the Great Indian Peninsula Railway, alongside notable figures like Sir Jamsetjee Jejeebhoy and David Sassoon.

### UNESCO’s Tentative List of World Heritage Sites

**SOURCE: LIVE MINT**

**PRIORITY: MEDIUM**

#### Context:

6 new sites from Madhya Pradesh have found place in the tentative UNESCO list of World Heritage Sites (WHS). Six sites include **Gwalior Fort, Dhamnar rock-cut caves, Bhojeshwar Mahadev Temple, the rock art site of Chambal valley, Khooni Bhandara-Burhanpur, Ramnagar and Mandla Gond sites.**

#### About Sites

##### Gwalior Fort:

- Ancient hill fort located in Gwalior, It stands on a steep hill overlooking the city and is known for its historical significance and architectural grandeur.
- Fort complex includes several noteworthy structures such as **Man Singh Palace, Gujari Mahal, and Teli-ka-Mandir.**
- Fort has witnessed various rulers and dynasties, reflecting a **mix of Hindu, Muslim, and Jain influences** in its architecture and design.



#### Dhamnar Rock-cut Caves:

- Notable for their ancient rock-cut architecture.
- Belongs to the **Gupta period (4th-6th centuries AD).**
- Caves features intricately carved pillars, sculptures, and reliefs, showcasing artistic and religious motifs of their time.
- They are significant for understanding the history of **Buddhism and Jainism** in central India.



#### Bhojeshwar Mahadev Temple:

- Located near Bhojpur in Madhya Pradesh, is an incomplete Hindu temple dedicated to Lord Shiva.
- Commissioned by **King Bhoja of the Paramara dynasty** in the 11th century.
- Unique feature is its gigantic lingam (Shiva's phallic symbol) made of polished granite, considered one of the largest in India.



#### Rock Art Site of Chambal Valley:

- They are famous for their prehistoric cave paintings.
- Estimated to be thousands of years old, depict **scenes of daily life, animals, and rituals of ancient communities.**



#### Khooni Bhandara, Burhanpur:

- **Underground water management system** comprising of eight waterworks.
- Techniques used were inspired by **Persian Qanta systems** of Iran and Iraq.
- Provided water to the entire city for as long as 300 years before it collapsed in 1977.
- The hint of red colour in this mineral rich water, gave it the name khooni (bloody).



#### Ramnagar and Mandla Gond Sites:

- Archaeological sites known for their **Gond tribal heritage and ancient relics**.
- Characterized by **megalithic structures, burial mounds, and remnants of Gond settlements**.
- Artifacts found here provide valuable insights into the lifestyle, beliefs, and socio-cultural practices of the ancient Gond communities in central India.



## ETHICS

### Ethical Governance in Election Management

You are the District Election Officer (DEO) in a district where state assembly elections are due in a few weeks. As DEO, you are responsible for ensuring that the election process is free, fair, and conducted according to the guidelines of the Election Commission. The Model Code of Conduct (MCC) is in effect, which mandates impartiality and prohibits any action that might give undue advantage to any party or candidate.

One evening, you receive information that a political rally is being organized by the ruling party in your district. Upon investigation, you find out that the rally not only violates the timing regulations of the MCC but also involves the use of government resources — the local administration has been covertly instructed to support the logistics of the rally. Moreover, this event is planned at a venue very close to

numerous polling stations, which could potentially influence the voters unduly on the eve of the elections.

As you delve deeper, it becomes evident that there is pressure from senior political figures to overlook these violations. Ignoring these issues could compromise the fairness of the election and your duty as a public servant. However, taking stringent action might lead to political repercussions and possibly affect your career adversely.

#### Questions:

- a) What ethical dilemmas are involved?
- b) How do you balance your professional responsibilities and personal risks?
- c) What are the possible actions you can take to address the violations of the MCC? What are the pros and cons of each action?
- d) What are the long-term implications of your decision on the electoral process and your role as a public servant?

#### Answer:

##### Stakeholders:

- **Voters:** Primary beneficiaries of a fair election.
- **Political parties:** Participants in the election, each with a vested interest in maximizing their chances of winning.
- **Local administration:** Involved in the logistics and potentially coerced into supporting the ruling party.
- **Yourself as the DEO:** Responsible for the conduct of the election.
- **Wider society:** Has a collective interest in the integrity of the electoral process.

##### a) What ethical dilemmas are involved?

**Integrity vs. Loyalty:** Integrity demands adherence to ethical principles and the law, ensuring the election is free and fair. In contrast, loyalty could compel the DEO to align with the desires or directives of higher-ups or the ruling party, potentially compromising the electoral process.

**Justice vs. Consequences:** The DEO faces the dilemma of justice versus the potential consequences of their actions. Justice demands that the MCC violations be addressed to ensure a level playing field for all political parties and candidates, which is fundamental to a democratic electoral process. However, taking action might lead to personal or professional consequences, including career setbacks or political retribution. This raises questions about whether the DEO should act justly at the risk of personal loss or choose a safer, perhaps less ethical, path.

**Professional Duty vs. Personal Safety:** This dilemma centers around the DEO's professional obligation to enforce election laws and regulations versus concerns for personal safety and career stability. The professional duty requires uncompromising enforcement of the MCC to uphold the sanctity of the electoral process. Yet, the personal safety—both career-wise and possibly in terms of personal security given the political pressures involved—could be at risk if the DEO antagonizes powerful political entities.

**Transparency vs. Pragmatism:** Transparency involves openly addressing and rectifying any MCC violations, which fosters trust in the electoral process among the voters. Pragmatism might suggest a more measured approach, possibly negotiating with political parties to reach a compromise that prevents direct conflict but potentially dilutes the strict enforcement of the MCC.

**Public Good vs. Individual Good:** The public good is served by a strict adherence to ethical norms and election laws, ensuring the public's trust in the electoral process remains intact. Conversely, the individual good, particularly the DEO's personal and professional interests, might be better served by not confronting powerful political interests head-on. This dilemma forces the DEO to consider whether prioritizing the broader benefits for society is worth the potential personal cost.

**b) How do you balance your professional responsibilities and personal risks?**

- The primary ethical dilemma here involves a conflict between duty and personal risk. As the District Election Officer (DEO) bound by a duty to uphold the Model Code of Conduct (MCC) and ensure a fair electoral process.
- This duty requires impartial enforcement of rules, reflecting the ethical principles of integrity, objectivity, and professionalism.
- The personal risk arises from potential political repercussions that might follow from enforcing these rules against the ruling party, threatening your career stability and future prospects.
- Balancing these concerns requires adherence to the principles of justice and fortitude. Justice demands that you treat all parties equally and uphold the law without favoritism, while fortitude involves the courage to make ethical decisions despite facing personal or professional adversity.
- By focusing on these ethical standards, you navigate the conflict between upholding your professional responsibilities and managing personal risks associated with political pressures.

**c) What are the possible actions you can take to address the violations of the MCC? What are the pros and cons of each action?**

- **Strict enforcement of the MCC:** Disallow the rally and penalize the misuse of government resources. This action upholds integrity and transparency but may lead to political backlash.
- **Negotiation:** Approach the political leaders to voluntarily comply with the MCC. This might maintain a more neutral ground but risks appearing weak or partial if not successful.
- **Reporting to higher authorities:** Escalate the issue to higher Election Commission officials, seeking guidance and possibly shifting the responsibility.

**Pro's & Cons**

- The pros of strict enforcement include maintaining electoral integrity and public trust, aligning with ethical standards like accountability and objectivity.
- The cons include personal and professional risks. Negotiation offers a less confrontational approach but might not effectively resolve the issue, potentially undermining the rule of law and impartiality.

**What are the long-term implications of your decision on the electoral process and your role as a public servant?**

- The long-term implications of upholding the MCC rigorously include strengthening the electoral process's integrity and setting a precedent for future conduct.
- It reinforces the expectation that elections will be conducted fairly and transparently, enhancing public trust in the electoral system.
- To prevent similar issues in future elections, ongoing training of election officers on ethical standards and the MCC, along with a clear mechanism for reporting and addressing violations, can be established.
- This helps in building a robust framework where ethical dilemmas can be managed more effectively, ensuring that the electoral process remains a true reflection of democratic principles.

**PLACES IN NEWS**

**Places in News - India**

| Place in News               | Location                                | Description                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sela Tunnel                 | Arunachal Pradesh                       | A strategic tunnel providing all-weather connectivity to Tawang district and improving troop movement along the frontier with China. Constructed by the Border Roads Organisation (BRO) at 13,000 feet, it's noted for being the longest bi-lane road tunnel at such an altitude.                                                                             |
| Rangpo Railway Station      | Rangpo, Sikkim                          | Marks the foundation of Sikkim's first railway station by Prime Minister Narendra Modi, enhancing tourism and offering reliable connectivity, especially beneficial during monsoon season disruptions.                                                                                                                                                        |
| Gevra Mine                  | Chhattisgarh                            | On its way to becoming Asia's largest coal mine with an expanded production capacity, highlighting the mine's role in meeting India's energy needs.                                                                                                                                                                                                           |
| Katchatheevu Island         | Palk Strait between India and Sri Lanka | A disputed, small, uninhabited island of significant religious and ecological importance, especially noted for the contention it has sparked between India and Sri Lanka over fishing rights.                                                                                                                                                                 |
| Nimmu-Padam-Darcha Road     | Ladakh                                  | A strategic road enhancing Ladakh's connectivity by providing a shorter route and enabling economic growth and defense preparedness in the Zaskar valley. It's being developed by the BRO and includes plans for a tunnel at Shinkun La for all-weather connectivity.                                                                                         |
| Luna Crater                 | Banni Plains, Gujarat                   | A 1.8 km wide crater also known as Luna Crater in the Banni Plains of Gujarat has been confirmed as the result of a massive asteroid impact dating back approximately 6,905 years.                                                                                                                                                                            |
| Moyar Valley                | Tamil Nadu                              | It is located in Mudumalai Tiger Reserve. It is the only region with the largest nesting colony of Gyps vultures in the wild. Recently concluded Synchronised Vulture Survey 2024 in the valley indicates a rise in number of birds against the earlier figures in 2023.                                                                                      |
| Similipal National Park     | Odisha                                  | Police and excise personnel jointly destroyed poppy plants worth Rs 10 crore in Similipal Tiger Reserve. Similipal National Park derives its name from the abundance of red silk cotton trees growing in the area. It is home to Bengal tiger, Asian elephant, gaur, and chausingha. It is part of the UNESCO World Network of Biosphere Reserves since 2009. |
| Kshipra river               | Madhya Pradesh                          | CAG alert on unacceptable pollution of Kshipra river in Madhya Pradesh. Shipra is a tributary of the Chambal river. Ujjain is situated on the banks of Shipra River.                                                                                                                                                                                          |
| Pobitora Wildlife Sanctuary | Assam                                   | Assam Cabinet has decided to de-notify Pobitora Wildlife Sanctuary, a prime rhino habitat. It is located on the southern bank of the Brahmaputra river. It holds one of the largest Indian rhinoceros population in Assam. It is also famous for water buffalo, Barking deer, Indian leopard and rhesus macaque.                                              |

## Places in News - World

| Place in News                                                  | Location                                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| World's First 3D-Printed Mosque                                | Jeddah, Saudi Arabia                         | The world's first mosque built using 3D printing technology, named after the late Abdulaziz Abdullah Sharbatly. It represents a groundbreaking achievement in construction and was commissioned by Saudi businesswoman Wajnat Abdulwahed as a tribute to her late husband.                                                                                                                                                      |
| South East Africa Montane Archipelago (SEAMA)                  | Northern Mozambique to Mount Mulanje, Malawi | A mountainous ecoregion stretching from northern Mozambique to Mount Mulanje in Malawi, noted for its biodiversity, including montane grasslands and inselbergs. It's facing deforestation challenges that impact its primary humid forest cover.                                                                                                                                                                               |
| Afanasy Nikitin Seamount                                       | Central Indian Ocean Basin                   | A seamount in the Central Indian Basin applied for by India for exploration rights, rich in cobalt, nickel, manganese, and copper deposits. Named after the Russian explorer Afanasy Nikitin, it exemplifies the potential for deep-sea mineral exploration and the strategic interests nations have in oceanic resources.                                                                                                      |
| Mekong Delta                                                   | Vietnam                                      | Rising saltwater levels threaten Vietnam's Mekong Delta, causing nearly \$3 billion in annual crop losses. It is the result of the saltwater intrusion due to rising sea levels, droughts. The region is famous as "Vietnam's rice bowl."                                                                                                                                                                                       |
| Gulf of Tonkin                                                 | South China Sea                              | Vietnam urges for respect of international law following China's establishment of a baseline in the Gulf of Tonkin. It is situated in the South China Sea, borders Tonkin in northern Vietnam and South China.                                                                                                                                                                                                                  |
| <b>Operation Indravati</b> launched to rescue Indians in Haiti | Haiti                                        | India has launched 'Operation Indravati' to evacuate its citizens from the turmoil-stricken Haiti to the neighboring Dominican Republic. It is located between the Caribbean Sea and the North Atlantic Ocean. Haiti occupies the western one-third of the island of Hispaniola. The Dominican Republic borders Haiti on the eastern side of the island. Other neighbors include Jamaica to the west and Cuba to the northwest. |
| Darien Gap                                                     | Northern Colombia and Southern Panama        | Darien Gap is a stretch of densely forested jungle across northern Colombia and southern Panama used by migrants to get to the US. It is a rugged region in the Isthmus of Darién, connecting Central and South America.                                                                                                                                                                                                        |