



# INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

## **SATURN'S RINGS**

Saturn's rings will not disappear permanently by 2025. Although they will become almost invisible from Earth during that time, it is a regular occurrence due to the thinness of the rings.

13 NOV - 18 NOV 2023

# WEEKLY CURRENT AFFAIRS

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# INSIDE

## GENERAL STUDIES – 1

**Topics:** Salient features of Indian Society, Diversity of India.

1. Forest Conservation Amendment Act 2023: Impact on Indigenous Communities 4

## GENERAL STUDIES – 2

**Topics:** Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure; Comparison of the Indian constitutional scheme with that of other countries.

1. State funding of Election in India 5

**Topics:** Important aspects of governance, transparency and accountability, e-governance applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

2. Analysis of Bills to Overhaul the Criminal Justice System 7
3. Parliamentary Panel reports on the three Indian Criminal Law bills 8
4. Ragging in India 8



## RAGGING

The practice of subjecting new students to humiliating or abusive behavior as a way of initiating them into a group or community.



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## GENERAL STUDIES – 3

**Topics:** Inclusive growth and issues arising from it.

1. Women Business Correspondents for Financial Inclusion 10

**Topics:** Conservation related issues, environmental pollution and degradation, environmental impact assessment.

2. OECD Report: Towards Eliminating Plastic Pollution by 2040 11
3. Mini Solar Grids: Solution for Ending Energy Poverty 13

## GENERAL STUDIES – 4

1. Code of Conduct for Judiciary 14
2. Ethics: Being Good 15

## CONTENT FOR MAINS ENRICHMENT

1. Silent Diwali 15
2. Tamil Nadu Encouraging Women Workforce 16
3. Australia apologises for thalidomide tragedy 16
4. Loneliness a significant Global Health Threat 16
5. Bengaluru's Climate Action Plan (CCAP) 17

## FACTS FOR PRELIMS

### GS-1

1. Ao and Sümi Naga communities in Nagaland 17
2. Constantine Joseph Beschi 17
3. PM-KISAN scheme 18

#### About PM-Kisan scheme

- It is a **central sector scheme** (100% centrally funded) and was launched in **Feb 2019**, to provide income support to the farmers and their families.
- **Support amount:** Under the scheme, income support of **₹6,000 per year** in three equal installments of ₹2000 is provided to **all landholding farmers** (initially limited to small and marginal farmers but later extended to all)
- **Nodal Ministry:** Ministry of Agriculture and Farmer's welfare
- **Physical Verification Module:** A mandatory physical verification of **5% beneficiary every year** is being done as per the provisions laid down in the scheme.
- **Mode of Transfer:** Via Direct Benefit Transfer (DBT)
- **Exclusions:** All institutional landholders; or if one of the family members hold government job (excluding MTS/Class IV/ Group D employee); or has paid income tax in last assessment year.



#### Similar programmes by states:

1. Bhavantar Bhugtan Yojana- MP.
2. The Rythu Bandhu scheme- Telangana.
3. Krushak Assistance for Livelihood and Income augmentation (KALIA)- Odisha

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4. Indian Miniature Painting 18

### GS-2

1. Digital Advertisement Policy, 2023 18
2. Broadcasting Services (Regulation) Bill, 2023 19
3. AAINA Portal 19
4. Annapurna Certificate Programme 20
5. NITI Aayog: SATH-E Project 20
6. IPEF: Supply Chain Resilience Agreement 20
7. 2023 APEC Summit 20
8. Innovation Handshake 21
9. CARA: India's adoption regulation body 21

### GS-3



1. Insurance Surety Bond 22
2. Concept of White Hole and Big Bounce 22
3. Attenborough echidna 22

- 4. Cell Broadcast Alert System (CBAS) 23
- 5. Cloud Seeding 23
- 6. Sovereign green bond 23
- 7. GPS anklets 24
- 8. EX-BONGOSAGAR 24
- 9. Four Fundamental Forces of the Universe 24
- 10. Saturn's rings 24

**Saturn**



**Context:** Saturn has regained its title as the planet with the most moons in the solar system. The discovery of 62 new moons brings Saturn's total to 145, surpassing Jupiter, which has 95 officially recognized moons.

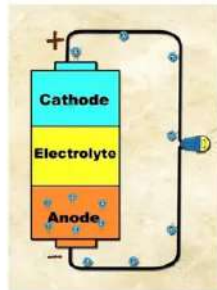
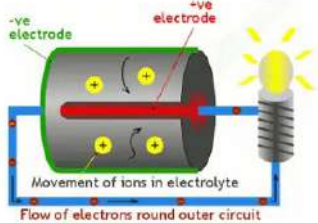
	Jupiter	Saturn
		
Diameter	<b>Largest Planet.</b> More than twice as massive as all other planets combined	<b>Second largest planet</b> in the solar system
Orbital Period	11.9 Earth years	29.5 Earth years
Number of Moons	95	145
Why do they have so many moons?	Saturn and Jupiter have many moons due to their <b>large size, gravitational influence, and the presence of debris and material</b> in their respective regions of the solar system.	
Notable Features	<b>Great Red Spot</b> (giant storm), Galilean satellites (Io, Europa, Ganymede, Callisto)	<b>Spectacular ring system</b> with seven rings, including the moon Titan <small>Visit Insights IAS Daily CA</small>
Composition	Thick atmosphere of <b>helium and hydrogen</b>	
Exploration	Galileo (1989); Juno (2011); Europa Clipper (2024)	
		Visited by Pioneer 11, Voyagers 1 and 2, and Cassini (orbited Saturn)

- 11. India exempted from CITES RST 25
- 12. National Health Claim Exchange (NHCE) 26
- 13. Electric Battery 26

- 5. Somalia 31



**How Does a Battery Work?**



**E4U Electrical 4 U**

- 14. Green alga Picocystis Salinarum 27
- 15. Kill switch 27
- 16. GHG bulletin 27
- 17. Igla-S 27
- 18. Microfinance in India 28
- 19. Fractals 28
- 20. Greenwashing 29

**MAPPING**

- 1. Ben Gurion Canal Project 29
- 2. Seismic Activity in Iceland 30
- 3. Char Dham Highway Project (Uttarkashi district, Uttarakhand) 30
- 4. Mount Etna 31

## GENERAL STUDIES – 1

Topics: Salient features of Indian Society, Diversity of India.

# 1. FOREST CONSERVATION AMENDMENT ACT 2023: IMPACT ON INDIGENOUS COMMUNITIES

### Context:

The [Forest Conservation Amendment Act of 2023](#), aimed at addressing climate change and deforestation, raises concerns due to its potential impact on indigenous communities and forest inhabitants.

Previously, we had already covered the FRA amendment in September 2023 ([Amended Forest \(Conservation\) Act imperils the Northeast](#))

### Key Provisions of FRA Amendment 2023:

	Details
<b>About</b>	Forest (Conservation) Amendment Bill, 2023 <b>allows for the diversion of forest land for various projects</b> , including <b>roads, railways, and strategic national security</b> projects, <b>within 100 km of India’s international borders</b> . It amends the <a href="#">Forest (Conservation) Act, 1980</a> .
<b>Objective</b>	To clarify and enhance the Forest (Conservation) Act, 1980
<b>Scope</b>	Applicability to land designated as forest since 1980
<b>Insertion of Preamble</b>	The Act introduces a Preamble acknowledging India’s commitment to <b>Net Zero Emission by 2070</b> , meeting <b>NDC targets by 2030</b> , and expanding forest cover to <b>one-third</b> of the land.
<b>Land under the Purview</b>	The forest law applies <b>to areas under the Forest Act, 1927</b> , and designated after October 25, 1980. <b>Not applicable</b> to forests <b>converted for non-forest use</b> after December 12, 1996
<b>Exemptions</b>	Land <b>within 100 km of borders</b> for national security Forest land <b>along a rail line or a public road</b> maintained by the government <b>Land up to 10 hectares</b> , is proposed to be used for constructing security-related infrastructure, afforestation etc.

<b>Leasing of Forest Land</b>	State government <b>requires prior approval of the central government</b> to assign forest land to any entity not owned or controlled by the government
<b>Permitted Activities</b>	Permitted activities have been expanded to <b>include check posts, fencing, bridges, zoos and safaris</b> under the Wild Life (Protection) Act, 1972; eco-tourism facilities; and <b>silvicultural</b> operations (enhancing forest growth), etc. Restrictions on <b>de-reservation or non-forest use</b> lifted with central government approval
<b>Implementation</b>	The central government is <b>empowered to issue “directions”</b> to central government authorities, state governments, territories, or recognized entities for proper Act implementation.

### Some of the Benefits of the Act are:

- Clarity on Forest Definition:** Addresses ambiguity in “deemed forests” and ensures clarity on FCA application to notified and recorded forests.
- Climate Change Mitigation:** Aligns with national and international commitments, promoting afforestation, enhancing productivity, and addressing carbon neutrality.
- Development Facilitation:** It facilitates economic exploitation by removing certain forest areas from legal jurisdiction.
- National Security Focus:** Exempts linear projects near borders, supporting infrastructure development crucial for national security.
- Compensatory Afforestation Promotion:** Encourages private entities to undertake afforestation projects, contributing to environmental conservation.
- Empowering Local Communities:** Supports activities like zoos and ecotourism, fostering wildlife awareness and creating livelihood opportunities for local communities.

### What is Community Forest Resource (CFR)?

CFR is **common forest land** protected by a community for sustainable use, recognized under the [Forest Rights Act \(FRA\) since 2008](#). It includes various forest categories, and CFR rights allow the community to **manage, conserve, and formulate rules** for sustainable forest use, ensuring their livelihoods and fostering local conservation practices.

### Impact of the 2023 amendment on Indigenous Communities:

Impact	Description
<b>Recognition of Rights</b>	Indigenous communities <b>may face reduced recognition of traditional rights</b> over forest lands such as CFR

<b>Impact on Rights</b>	The amendment <b>eliminates the need for tribal grama sabhas' prior consent</b> for non-forest use, potentially favouring private interests. <b>Permission for corporate-led ecotourism</b> may impact tribal livelihoods, and mass tourism could negatively affect local cultures and traditions.
<b>Land Use Changes</b>	Changes in forest land use <b>may impact the livelihoods and cultural practices</b> of indigenous groups.
	The amendment has had notable impacts in <b>Mendha-Lekha in Maharashtra, Loyendi in Odisha, and Malakkappara</b> in Kerala among others
<b>Community Consultation</b>	Limited community consultation may lead to <b>decisions affecting indigenous territories</b> without proper representation.
<b>Economic Opportunities</b>	Economic projects like infrastructure development may bring both benefits <b>and disruptions to indigenous communities.</b>
<b>Environmental Stewardship</b>	Indigenous communities, often <b>stewards of local ecosystems</b> , may face challenges in maintaining environmental balance.
<b>Potential Displacement</b>	Linear projects may lead to the <b>displacement of indigenous communities</b> from their ancestral lands.
<b>Legal Protections</b>	Legal safeguards for indigenous rights may face challenges, impacting their <b>ability to protect and manage forests sustainably.</b>

**Other issues with the Act:**

1. The amendment **fails to address the growing issue of human-animal conflicts** in forest areas.
2. **Forest Redefinition:** The amendment contradicts the Supreme Court's 1996 order, potentially jeopardizing legal safeguards for one-fifth to one-fourth of India's forests. **Infrastructure Impact:** Exemptions for national security projects near borders may harm forest cover in northeastern states
3. **Federal impact:** Concerns arise over forest exploitation by private entities and **increased central government power** at the expense of state governments.

**Conclusion:**

The way forward involves **comprehensive stakeholder consultation. Prioritize transparency** in decisions related to forest land use, exemptions, and infrastructure projects, fostering trust. Implement a **robust periodic review mechanism** to assess the Act's impact on forests, biodiversity, and

communities, considering amendments based on feedback. **Empower local communities**, especially tribal groups, in decision-making, reinforcing legal safeguards for their rights and traditional knowledge.

**Mains Links:**

**Q. "Policy contradictions among various competing sectors and stakeholders have resulted in inadequate 'protection and prevention of degradation' to the environment." Comment with relevant illustrations. (UPSC 2018)**

**Prelims Links:**

Q. Consider the following statements: (UPSC 2019)

1. As per a recent amendment to the Indian Forest Act, of 1927, forest dwellers have the right to fell the bamboo grown in forest areas.
2. As per the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, bamboo is a minor forest produce.
3. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 allows ownership of minor forest produce to forest dwellers.

Which of the statements given above is/are correct?

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

**Ans: B**

**GENERAL STUDIES – 2**

**Topics:** [Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure;](#) [Comparison of the Indian constitutional scheme with that of other countries.](#)

**1. STATE FUNDING OF ELECTION IN INDIA**

**Context:**

The Chief Justice of India, **D.Y. Chandrachud**, recently led a Constitution Bench in reserving judgment on the **electoral bonds scheme's** validity. The debate revolves around transparency in election funding and whether elections should be state-funded.

**What is State Funding of Elections?**

State funding of elections refers to the **financial support provided by the government to political parties and candidates** to facilitate the electoral process.

**Key Objectives:**

1. Enhancing **transparency and accountability**.
2. Reducing the influence of **private and corporate donors**.
3. Creating a fair and level **playing field for political entities**.
4. Encouraging democratic practices within **political parties**.
5. **Minimizing the role of black money** in election campaigns.

**Examples:**

- **Norway:** Norway has a robust state funding system, with approximately 74% of total election expenses covered by the government. Parties receive funds based on their performance in previous elections.
- **Germany:** Germany provides public funding to political parties based on their performance in elections. Additionally, citizens can **voluntarily contribute a percentage of their income tax** to a political party of their choice.
- Other countries where such a practice is prevalent are **Canada, France, and Brazil**

**Various views on State financing:**

1. **Indrajit Gupta Committee (1998):** Supported state funding for a fair political landscape, especially benefiting smaller parties.
  - a. Recommended state funds exclusively for **recognized national and State parties**.
  - b. Proposed funding in the form of **free facilities for parties and candidates**.
2. **Law Commission Report (1999):** Advocated state funding as 'desirable' on the condition of parties refraining from external funding.
3. **National Commission to Review the Working of the Constitution (2000):** Did not endorse state funding but highlighted the necessity of a robust regulatory framework for political parties before considering state funding.
4. **2nd ARC:** Recommended **partial state funding** for the purpose of reducing "illegitimate and unnecessary funding" of elections expenses.
5. **ECI's Perspective on Election Funding:** The Election Commission of India (ECI) asserts its inability to restrict candidates' expenditures beyond state-provided limits.

Current Methods of Funding in India	
<b>1. Individual Persons</b>	Political parties can <b>legally receive donations</b> from individuals as per Section 29B of the Representation of the People Act (RPA).

<b>2. Indirect State Funding</b>	This encompasses <b>non-direct funding methods, such as free media access</b> , public venue access for rallies, and subsidized or free transportation. India regulates these methods.
<b>3. Corporate Funding</b>	Corporate <b>donations</b> are governed by the Companies Act of 2013 in India.
<b>4. Electoral Trusts</b>	Non-profit entities in India were created to systematically collect <b>voluntary contributions</b> from individuals or domestic companies.

**The Need for State Funding of Elections:**

1. **Transparency Issues:** Current funding lacks transparency, with a significant portion coming from undisclosed sources, including **electoral bonds** that withhold donor details, violating transparency principles.
  - a. Political parties **resist transparency under the Right to Information**.
2. **Corruption and Crony Capitalism:** Existing funding, involving 'unknown donors' like large corporations, fosters **corporate lobbying, crony capitalism**, and institutionalized political corruption.
3. **Fairness Concerns:** Wealthier candidates and parties having access to substantial financial resources create an uneven playing field
4. **Violations of Laws and Guidelines:** Non-disclosure of funding sources contradicts guidelines from the Election Commission of India (ECI), rulings of the Central Information Commission (CIC), and the Supreme Court's decision in the PUCL vs Union of India case.

**Challenges in the Implementation of State Funding of Elections:**

Challenges	Description
<b>Fiscal Challenge</b>	State-sponsored electoral funding may exacerbate the <b>rising fiscal deficit</b> , straining government finances
<b>Funds Diversion</b>	State-funded elections could <b>divert resources from crucial social sectors</b> like Health, Education, and Skill Development
<b>Operational Challenges</b>	Establishing <b>consensus on criteria for fund distribution</b> among political parties and candidates poses a significant operational challenge.
<b>Misuse of State Funding</b>	There's a risk of <b>misuse as frivolous political parties might emerge solely to receive state subsidies</b> , diverting funds from political office and development work.

<b>Regulatory Hurdles</b>	The <a href="#">Election Commission of India (ECI)</a> opposes state funding, citing limitations in prohibiting or checking candidates' expenditures beyond state provisions.
<b>Limited Benefits</b>	<a href="#">Intra-party democracy deficits</a> may limit the benefits of state funding of elections.

**Suggestions for state funding:**

- National Electoral Fund:** T.S. Krishnamurthy proposed allowing contributions from all donors, with funds distributed based on election results or agreed-upon principles.
- Audit of Party Accounts:** [Venkatchaliah Committee's \(2002\) recommendations](#) for strict regulatory frameworks in auditing and disclosing party income and expenditure to curb undisclosed funding.
- Expenditure Caps:** Enforce expenditure limits for political parties, and implement the Law Commission of India's recommendation to cap anonymous donations.

**Conclusion:**

Implementing [state funding of elections for transparency](#) is a worthy goal, contingent on devising a fair fund distribution procedure with major political parties' consensus. There is a need for parties to [function democratically](#) and be accountable for public funding. Also, there is a critical requirement for [complete transparency in election spending](#) if public funding is implemented.

**Insta Links:**

- [State funding of elections](#)

[Topics: Important aspects of governance, transparency and accountability, e-governance applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.](#)

## 2. ANALYSIS OF BILLS TO OVERHAUL THE CRIMINAL JUSTICE SYSTEM

**Context:**

The government has [introduced three Bills to replace the foundational laws of the criminal justice system in India](#)—the Indian Penal Code (IPC), the Code of Criminal Procedure (CrPC), and the Indian Evidence Act (IEA).

Kindly refer to an article on the same topic: [Analysis of Recent Reforms in Indian Criminal Law](#)

**What is the Criminal justice system?**

The criminal justice system is a [set of institutions and procedures](#) established by governments to maintain [social order, deter and mitigate crime, and administer justice](#). It includes law enforcement, the judiciary, and correctional facilities, working together to investigate, prosecute, adjudicate, and penalize individuals accused of committing crimes.

**Need for modernization of India's criminal justice system (CJS):**

Key Aspects	Details
<b>Modernizing Jurisprudence</b>	There is a need to reform the current criminal justice system to <a href="#">bring it in line with contemporary legal standards</a> . Notably, Example: The introduction of <a href="#">community service as a punishment</a> in the new bill reflects a shift towards a <a href="#">more reformative approach</a> .
<b>Aligning with Supreme Court Rulings</b>	There is a need to reform CJS to align with the Supreme Court decisions, including the <a href="#">decriminalization of adultery and same-sex relations</a>
<b>Addressing Overlaps</b>	There is a need to <a href="#">eliminate inconsistencies and duplications</a> with specific laws, e.g., the removal of IPC provisions on weights and measures to avoid overlap with the <a href="#">Legal Metrology Act, 2009</a> .
<b>Updating Definitions</b>	There is a need to <a href="#">replace the old definition in acts</a> , to align it with new modern reality e.g., the new bill updates terminology, replacing <a href="#">'unsound mind'</a> with <a href="#">'mental illness'</a> in line with modern medical understanding (Mental Healthcare Act, 2017)
<b>Ensuring Fairness and Efficiency</b>	The overarching goal is to establish a criminal justice system that <a href="#">is fair, just, and efficient, addressing the evolving needs</a> of modern society.

**Major Provisions of the Bills:**

### Reforms in Indian Criminal Law



Provisions	Bhartiya Nyaya Sanhita Bill 2023	Bharatiya Nagarik Suraksha Sanhita Bill 2023	Bharatiya Sakshya Bill 2023
Replaces	Indian Penal Code, 1860	Criminal Procedure Code, 1898	Indian Evidence Act, 1872
Focus	Reflects Indian ethos, justice-oriented	Enhances citizens' protection	Modernizes evidence presentation
Sections	356 sections (replacing 511)	533 sections (160 changed)	170 sections (23 changed)
Women and Children	A <b>separate chapter</b> dedicated to them; New offence: false promise of marriage, Employment etc.; <b>Initiating children</b> into crime made punishable.	Sexual intercourse on false promise of marriage, employment, etc., is a new offence.	
Digital Integration	Expanded definition of documents; Address newer crimes, cyber offences	Digitization of processes	Accepted documents include <b>electronic and digital records, video recordings, emails, etc.</b>
Speedy Trials	Summary trials, time limits	Trial expedited; <b>90-day window</b> for investigation after chargesheet filing; <b>Witness protection scheme</b> to be made by states; <b>Bail after serving 1/3rd</b> of the maximum sentence for first-time offenders.	Video recording of search and seizure operations by the police
Victim Support	Compulsory status updates of victim support	Protection, timely information	<b>Video recording of search and seizure operations</b> by the police
Terrorism and Organized Crime	<b>New definitions of Terrorism</b> for 1 <sup>st</sup> time; Armed rebellion, separatist activities, organized crimes, etc.; Mob lynching made an offence explicitly	Harsher provisions against gangs	Define and address organized crimes
Fugitive FIR	Zero FIR, e-FIR introduced	Trials for fugitives in absentia	Mandatory digitization of FIR, chargesheets; <b>Mandatory use of Forensic services</b> for offences punishable with 7 or more years
Sedition Law	Repealed		

For more positive aspects of the proposed criminal law reforms: [Click Here](#)

For issues (updated) related to the proposed law (refer Infographic below):



### Issues with the proposed criminal law reforms



The govt. has recently introduced three Bills to replace—the Indian Penal Code (IPC), the Code of Criminal Procedure (CrPC), and the Indian Evidence Act (IEA).

Issues	Explanation
Gender-Biased Language and Assumptions	The <b>Bharatiya Nyaya Sanhita (BNS) bill</b> reflects gender bias, treating women as needing protection rather than equals. <b>The omission of making marital rape an offence</b> , despite recommendations from the Justice Verma Committee in 2013, is noted. <b>Criminalization of marital rape</b> is limited to cases where the wife is under 18, perpetuating notions of spousal ownership. <b>Regressive Terminology:</b> Sections like “outraging modesty” (BNS Section 73) employ regressive terminology, reflecting outdated ideas about women’s behaviour and morality.
Incomplete Protections	The bills <b>lack sufficient remedies for men or non-binary individuals</b> (sexual offences perpetrated by men against other men or women against other women) and focus primarily on sexual offences against women.
Ambiguities in Certain Clauses	The <b>inclusion of “deceitful means” for marriage</b> (exact provisions not specified) creates ambiguity in judging guilt and determining.
Reformative vs. Punitive System	While community service is introduced as a punishment, concerns arise due to the <b>non-compoundable ability of minor offences</b> , leading to trial and conviction. <b>A compoundable offence</b> is a criminal offence in which the victim can enter into a compromise with the accused, and the charges can be dropped upon mutual agreement.
Non-Codification of SC Directions	The bills did not codify various Supreme Court directions, especially regarding <b>procedures for mercy petitions</b> , thus creating gaps in the legal framework.
Discretionary Powers	The bills grant <b>discretionary powers to law enforcement agencies</b> , such as the “ <b>right to handcuff</b> ,” raising concerns about potential misuse.
Weakened Protections Against State	The new bills seemingly <b>endorse practices like detention</b> without charges for extended periods (90 days in certain cases), raising concerns about the potential erosion of individual liberties and rights.
Ambiguity in the Definition of Offences	The definition of offences like “ <b>subversive activities</b> ” and “ <b>provocation and intimidation of the government</b> ” is vague and broad, potentially leading to overreach and misuse.

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## 3. PARLIAMENTARY PANEL REPORTS ON THE THREE INDIAN CRIMINAL LAW BILLS

### Recommendations of the Parliamentary Standing Committee (PSC) on Home Affairs

1. **Instead of deleting Section 377 of the IPC**, the panel recommends partially retaining Section 377 of the IPC in a gender-neutral form
2. The panel asks to **retain the offence of adultery** (Section 497 of IPC) by making it gender neutral
3. The panel recommends **empowering judicial magistrates** to impose **community service** as punishment
4. It recommends **restricting the use of handcuffs** for economic offences
5. The panel recommends **allowing online FIR (e-FIR)** only through State-specified rules

### Conclusion:

Parliament must thoroughly **scrutinize the bills to guarantee a fair, just, and efficient** criminal justice system. It should address concerns about potential overlaps with special laws, evaluate sentencing ranges, and fill gaps in codifying Supreme Court directions. The debate on **reformatory versus punitive systems, age thresholds, and gender-related offences** should be deliberated upon for a comprehensive legislative approach.

### Insta Links:

[India’s Criminal Justice System](#)

### Mains Links:

Q. Comprehensive reforms are needed in the criminal justice system to ensure effective enforcement of the law, uphold accountability, have a well-trained workforce and speedy disposal of the cases. Comment. (250 words)

## 4. RAGGING IN INDIA

### Context:

Recent incidents, including the **death of a 17-year-old at Jadavpur University** and the **brutalization of a PSG College of Technology student in Tamil Nadu**, highlight the systemic gaps allowing this vicious cycle of Ragging to continue.

### What is Ragging?

Ragging refers to the practice of **subjecting new students to humiliating or abusive behaviour** as a way of initiating them into a group or community. It can take many forms, including **physical and emotional abuse, harassment, bullying, and even sexual assault.**



# RAGGING

The practice of subjecting new students to humiliating or abusive behavior as a way of initiating them into a group or community.



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### Data on caste discrimination in colleges:

A parliamentary panel found **rampant caste bias within Indian colleges and universities.**

### Previous cases:

Location	Case	Legislation and Outcome
TAMIL NADU	Pon Navarasu	Tamil Nadu enacted the <b>country's first anti-ragging legislation</b> in 1997 based on this case.
		Navarasu, son of the then <b>vice-chancellor of the University</b> of Madras, was murdered during a ragging session.
		John David, a senior student, confessed to the crime, surrendering to judicial custody.
		Navarasu was assaulted, <b>forced to strip, lick David's footwear</b> , and violently beaten to death when he refused.
MAHARASHTRA	Payal Tadvi	Payal Tadvi, a <b>second-year MD student</b> at Mumbai's TN Topivala National Medical College (TNMC), faced caste discrimination and harassment within the campus.  She belonged to <b>the Adivasi Tadvi Bhil community</b> and was found dead in Mumbai.

### Laws against ragging in India:

Measures	Description
<b>Judicial Measures</b>	In 2001, the Supreme Court of India <b>banned ragging nationwide</b> and mandated the creation of <b>proctoral committees within educational institutions</b> for active monitoring and addressing ragging issues.  <b>Severe incidents</b> are recommended to be reported to the police.
<b>Legal Measures</b>	Ragging cases can be addressed under various provisions of the <b>Indian Penal Code, including Sections 339 and 340</b> dealing with wrongful restraint and confinement.  Some states, such as <b>TN, Kerala and Maharashtra</b> , have enacted <b>specific anti-ragging laws</b> , providing a robust legal framework at the state level.
<b>UGC Measures</b>	The University Grants Commission (UGC) issued <b>comprehensive guidelines</b> in 2009, requiring universities to ensure <b>students sign anti-ragging undertakings</b> .  The guidelines also mandate the <b>establishment of vigilant committees</b> comprising staff and senior students.  The UGC supports an <b>anti-ragging helpline, available in 12 languages</b> , and maintains a dedicated website for reporting and tracking ragging incidents.
<b>Other Measures</b>	The <b>2007 R.K. Raghavan Committee report</b> described ragging as psychopathic behaviour and recommended both its prohibition and the implementation of preventive measures, influencing the UGC's 2006 guidelines.  The <b>Unny Committee's recommendations</b> included a range of punishments for ragging, from monetary fines to imprisonment, reinforcing the seriousness of the issue.

### Gaps in Anti-Ragging System:

Gaps	Description
<b>Lack of Effective Prevention</b>	State laws predominantly <b>focus on prohibiting ragging rather than addressing</b> its root causes and behaviours, resulting in a failure to prevent incidents of ragging.
<b>Poor Enforcement</b>	Despite the existence of guidelines, such as the UGC's 2009 regulations, there is a <b>lack of strict implementation by governments and authorities</b> , contributing to unsafe campus environments.

<b>Insufficient Institutional effort</b>	Educational institutions <b>often limit their anti-ragging efforts</b> to formalities, such as <b>displaying ‘no-ragging’ notices</b> and obtaining undertakings, which may not effectively deter ragging.
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To address the issue of ragging, it is imperative to **strengthen institutional accountability** by ensuring educational institutions actively prevent such incidents through **rigorous monitoring and the strict enforcement of anti-ragging policies**. Creating supportive environments is crucial, with an emphasis on **making teachers and hostel wardens easily approachable for students** facing ragging, ensuring immediate assistance for victims. Additionally, **engaging multiple stakeholders**, including students, teachers, and parents, in the anti-ragging campaign is essential, fostering a comprehensive, community-wide effort against ragging.

**Ethical issues associated with ragging:**

1. Violation of human dignity
2. Infringement of individual rights
3. Promotion of unhealthy behaviour
4. Compromise of academic standards
5. The legal and moral responsibility of educational institutions

**Solutions:**

1. Strict rules and regulations
2. Awareness campaigns
3. Counselling and support
4. Orientation programs
5. Monitoring and surveillance

**Mains links:**

Q. Why ragging in schools and colleges is considered an issue of serious concern? Comment. (10M)

**GENERAL STUDIES – 3**

Topics: Inclusive growth and issues arising from it.

## 1. WOMEN BUSINESS CORRESPONDENTS FOR FINANCIAL INCLUSION

**Context:**

The State Bank of India’s economic research department suggests that **increasing the number of women business correspondents (BC)** by implementing a **33% reservation** could significantly impact India’s socio-economic fabric.

**What is Financial Inclusion?**

Financial inclusion refers to **the effort to provide access to essential financial services (e.g., banking, credit, insurance,)** and products to individuals and communities, especially those traditionally underserved or excluded from the formal banking system. The **RBI’s financial inclusion (FI) index** shows financial inclusion is improving in India

**Who are Business Correspondents?**

Business Correspondents (BCs) are **intermediaries appointed by banks and financial institutions** to provide banking and financial services in areas where establishing traditional branches may be challenging or expensive. BCs act as a **link between banks and customers**, offering services such as opening accounts, disbursing loans, collecting payments, and facilitating other financial transactions.

- RBI launched the **Banking Correspondent’s (BCs) model in 2006** to expand Financial Inclusion. E.g., ‘**Bank Sakhi**’ (or female banker friend) model.

**Current status of BCs (as per the report):**

1. BCs **operate over 95% of banking outlets** in rural regions.
2. Presently Women agents comprise **less than 10% of the BC workforce**

**Ways in which Women BCs Deepen Financial Inclusion:**

Ways	Description
<b>Rapport</b>	Women BCs can <b>build a rapport with diverse customer groups</b> , promoting demand-driven incremental revenue while <b>advocating for small savings schemes</b> and social security offerings.
<b>Grievance Redressal</b>	Women BC agents, with their patience, are <b>more willing to address queries and explain product features</b> , contributing to a transparent and comprehensible financial system.
<b>Encourage Other Females</b>	Female customers are more <b>open to sharing their family’s financial issues</b> and needs with female BC agents, fostering a better understanding of product offerings.  Women customers find <b>women agents easier to approach</b> , trustworthy, and great at maintaining confidentiality
<b>Performance</b>	Female BC agents demonstrate <b>similar or higher business performance</b> and are more likely to serve customers in remote areas, the elderly, and other underserved sections of the population.  Reports show that increasing <b>women’s involvement in Pradhan Mantri MUDRA Yojana</b> improved the financial status of female borrowers.

**Challenges with Women BCs:**

Challenges	Description
<b>Lack of Financial Inclusion</b>	Many WBCs face <b>difficulties in accessing financial services</b> and credit due to their <b>lower socio-economic status</b> and <b>lack of collateral</b> .
<b>Digital Illiteracy</b>	A large number of WBCs lack familiarity with <b>digital technology</b> and the necessary skills to use digital financial services effectively.
<b>Minimum Educational Qualification for BCs</b>	Minimum qualification is a hurdle for onboarding female BCs. The current certification <b>requires a 10th pass</b> , but some banks set a higher requirement of a 12th pass.
<b>Societal Attitudes</b>	WBCs often encounter societal attitudes that view women as <b>homemakers rather than entrepreneurs</b> , limiting their opportunities for business growth.
<b>Lack of Support</b>	WBCs <b>often lack support from government and financial institutions</b> , making it challenging for them to access the resources needed for business growth.
<b>Safety Concerns</b>	Operating in <b>rural areas with a high risk of violence and crime</b> , WBCs face safety concerns that limit their mobility and put them in danger during transactions.

**Government Initiatives:**

- One Gram Panchayat One BC Sakhi:** It aims to **deploy one BC Sakhi** in every Gram Panchayat by 2023-24 (it is an initiative by the Ministry of Rural Development)
- [Pradhan Mantri Jan Dhan Yojana](#).
- Digital Identity (Aadhaar).
- National Centre for Financial Education (NCFE).
- Centre for Financial Literacy (CFL) Project.

**Way Forward:**

- The present SBI report asks to set **33% reservation in BCs for women**.
- Reduce entry barriers** with equipment, rental support, and initial stipends.
- Address **mobility issues** and **offer flexible hours**.
- Creating a **Supportive Environment**
- Establish **women-agent communities**
- Implement **financial literacy programs**.
- Offer **small loans, micro insurance**, and low-balance savings accounts.
- Address **gender-based barriers** to financial services.

**Insta Links:**

- [PM Mudra Yojana completes 8 years](#)

**Mains Links:**

**Q. Is inclusive growth possible under a market economy? State the significance of financial inclusion in achieving economic growth in India. (UPSC 2022)**

**Q. Pradhan Mantri Jan Dhan Yojana (PMJDY) is necessary for bringing the unbanked to the institutional finance fold. Do you agree with this for the financial inclusion of the poorer section of the Indian society? Give arguments to justify your opinion. (UPSC 2016)**

**Prelims Links**

**Q. Pradhan Mantri MUDRA Yojana is aimed at (UPSC 2016)**  
 (a) bringing small entrepreneurs into the formal financial system  
 (b) providing loans to poor farmers for cultivating particular crops  
 (c) providing pensions to old and destitute persons  
 (d) funding the voluntary organizations involved in the promotion of skill development and employment generation

**Ans: A**

**Topics: Conservation related issues, environmental pollution and degradation, environmental impact assessment.**

## 2. OECD REPORT: TOWARDS ELIMINATING PLASTIC POLLUTION BY 2040

**Context:**

The **Organisation for Economic Co-operation and Development (OECD)** released an interim report (titled “Towards Eliminating Plastic Pollution by 2040: A Policy Scenario Analysis”) revealing that **21 million tonnes of plastics** leak into the environment globally in 2022.

- The report was presented in the 3<sup>rd</sup> session of the **Intergovernmental Negotiating Committee on Plastic Pollution**, which aims to establish an **international binding agreement** on plastic pollution.
- The full report with more detailed analysis and policy guidance is expected in the first half of 2024

**The key findings of the report:**

Under the climate policies in place as of 2021 (taken as a baseline), there would be a **50% increase in leakage of (macro)plastics** to the environment by 2040. Early, stringent, and coordinated policy action globally (costing just **0.5%** of global GDP) could cut plastic waste generation in 2040 **by a quarter below** the baseline.

**Detrimental Consequences of Continued Plastic Use and Waste Volumes:**

Consequences	Examples
1. Environmental Impact	Accumulation of plastic in oceans, harming marine life.
	Disruption of ecosystems due to plastic pollution.
2. Climate Impact	Greenhouse gas emissions from plastic production.
	Energy-intensive processes for plastic recycling.
3. Health Impact	Microplastics enter the food chain (bioaccumulation) and affect human health.
	Respiratory issues due to the burning of plastic waste.
4. Economic Impact	Costs associated with cleaning up plastic pollution.
	Loss of tourism revenue in areas affected by plastic debris.
5. Wildlife Impact	Ingestion of plastic by animals, leads to fatalities.
	Entanglement of wildlife in plastic debris.
6. Resource Depletion	Depletion of fossil fuels for plastic production.
	strain on natural resources for raw materials.

### Recommendations proposed in the Report:

Recommendations	Description
1. Curb Production and Demand	Implement <b>targeted taxes and regulations</b> on avoidable plastics e.g., India's ban on <a href="#">Single-Use plastics</a> in 2022
	<b>Restrict production and demand</b> to sustainable levels e.g., using alternatives of plastics; adopting <a href="#">the LiFE approach</a> of India
2. Design for Circularity	Improve the plastic production process through <b>eco-design criteria</b> .
	Establish product standards that <b>promote reuse</b>
3. Enhance Recycling	Strengthen material loops by <b>improving separate collection, sorting, and recycling</b> of plastic waste
	Implement measures like <b>extended producer responsibility</b>
4. Close Leakage Pathways	Decrease environmental losses by implementing effective waste collection and disposal methods.

For Single Use plastic: [Click Here](#)

## Environment friendly Plastics



**Bio-plastics:** Materials bio-sourced or biodegradable or both and are made from renewable biomass resources (e.g., corn starch/ sugarcane/ cassava)



**Biodegradable plastic:** plastics (other than compostable plastics) which undergo complete degradation by biological processes under ambient environment.

**Compostable plastics:** Plastics that undergo degradation by biological processes during composting to yield CO<sub>2</sub>, water, inorganic compounds and biomass.



**Oxo-degradable:** These are conventional plastics such as PE, which include an additive to help them break down into smaller fragments, which could lead to microplastic leakage in the environment.

### Initiatives Taken to tackle microplastics:

- **Global Initiatives:**
  1. [Global Partnership on Marine Litter \(GPML\)](#)
  2. [GLOlitter Partnerships Project](#)
  3. [London Convention, 1972](#)
- **India-Specific Initiatives:**
  1. Elimination of single-use plastic
  2. [Plastic Waste Management Rules, 2016](#)
  3. [Un-Plastic Collective](#)
  4. [Kerala: Beat Plastic Pollution Initiative](#)

### How are other countries dealing with single-use plastic?

1. **Consensus on SUP in UN:** This year, 124 countries, parties to the United Nations Environment Assembly, **including India**, signed a resolution to draw up an agreement which will in the future make it **legally binding for the signatories to address the full life of plastics** from production to disposal, to end plastic pollution.
2. **68 countries have plastic bag bans** with varying degrees of enforcement
3. **Bangladesh:** Bangladesh became the first country to ban thin plastic bags in 2002.
4. **China:** China issued a ban on plastic bags in 2020 with a phased implementation.
5. **EU:** EU bans certain single-use plastics for which alternatives are available.

### Insta Links:

- [Substitute for single-use plastics](#)
- [NATURE AND YOU- SINGLE-USE PLASTIC](#)

### Mains Link:

Q. What is single-use plastic and what are the concerns associated with it? How can it be successfully phased out in

the country? (15M)

**Prelims Link:**

**Q. Bisphenol A (BPA), a cause of concern, is a structural/key component in the manufacture of which of the following kinds of plastics? (UPSC 2021)**

- (a) Low-density polyethylene
- (b) Polycarbonate
- (c) Polyethylene terephthalate
- (d) Polyvinyl chloride

**Answer: B**

BPA stands for bisphenol A, an industrial chemical that has been used to make certain plastics and resins since the 1950s. BPA is found in polycarbonate plastics and epoxy resins. Polycarbonate plastics are often used in containers that store food and beverages, such as water bottles.

**Q. Triclosan considered harmful when exposed to high levels for a long time, is most likely present in which of the following? (UPSC 2021)**

- (a) Food preservatives
- (b) Fruit-ripening substances
- (c) Reused plastic containers
- (d) Toiletries

**Answer: D**

Triclosan is an antibacterial and antifungal agent present in some consumer products, including toothpaste, soaps, detergents, toiletries toys, and surgical cleaning treatments

### 3. MINI SOLAR GRIDS: SOLUTION FOR ENDING ENERGY POVERTY

**Context:**

The [article](#) discusses the **private sector-led revolution** in clean energy mini-grids, aiming to lift **500 million people out of energy poverty**.

**What is Energy Poverty and Mini Solar Grids?**

**Energy poverty** refers to the lack of access to modern energy services, including electricity and clean cooking facilities. **Around 9% of the global population** still lacks access to electricity, with Sub-Saharan Africa and rural areas being the most affected.

**Mini solar grids** are **decentralized** energy systems that use solar power to generate electricity on a smaller scale (a few kilowatts up to 10 megawatts). These grids are often employed in **rural and off-grid areas**, providing a sustainable and cost-effective solution to address energy poverty.

- They are characterized by their **ability to operate independently** or in conjunction with centralized grids, offering reliable and clean power to under-

served communities.

- **World Bank** is aiming to fund a thousand mini-grids, to bring electricity to **75% of the 675 million globally** without it

**Examples of functional Mini-Grids:**

Country	Description
Nigeria	20,000 mini-grids installed to date
Cambodia	Diesel-powered mini-grids integrated into the national grid. Serving over 1 million consumers.
India	Around 700 solar mini-grids are operated by private companies, mainly in UP, Bihar, and Jharkhand. State regulations support private-sector mini-grid setups.

**Significances of Mini Grids:**

Significances	Details
<b>Economic and Environmental Benefits</b>	Solar mini-grids provide a <b>cost-effective, sustainable alternative</b> to diesel generators. <b>Reduce reliance on fossil fuels</b> , promoting renewable energy
<b>Decentralized Energy Systems</b>	Crucial in <b>climate-vulnerable regions</b> without centralised grid infrastructure. <b>Scalability:</b> Solar mini-grids can <b>flexibly scale based</b> on community energy needs, providing adaptable energy access solutions.
<b>Development Accelerators</b>	Facilitate various <b>rural development services</b> beyond electricity provision Enhance the <b>quality of life and economic opportunities</b> in rural areas Services include <b>mobile telephony, irrigation, agro-processing</b> , e-mobility
<b>Affordability</b>	Highly competitive at \$24/MWh, <b>lower than both coal and natural gas</b> . Solar power deployment is economically viable, supported by measures like <b>Feed-in Tariffs and battery cost reduction</b> .
<b>100% Electrification in India (Saubhagya)</b>	The government's <b>Saubhagya initiative</b> declared 100% electrification of all 'willing' households in March 2019.
<b>Sustainability</b>	Solar energy is <b>clean, and renewable, and aids in lowering greenhouse gas emissions</b> and combating climate change.

**Challenges in Utilizing the Full Potential of Solar Energy:**

- **Insufficient Global Solar Investments:** Solar is cost-effective and beneficial, but global investments are only 10% of what's needed for net-zero emis-

sions.

- **Disparity in Investment Distribution:** Developing countries, with over 50% of the population, received only 15% of renewable energy investments in 2022.

**Government Schemes:**

1. [International Solar Alliance](#)
2. [National Solar Mission](#)
3. Kisan Urja Suraksha evam Utthaan Mahabhiyan ([PM-KUSUM](#))
4. [One Sun, One World, One Grid](#) (OSOWOG)
5. Solar Park Scheme
6. Rooftop Solar Scheme

**Way forward:**

Key Points	Implementation Approaches
1. Policy and Regulation	Develop <b>supportive policies</b> for access-deficit nations.
	Encourage <b>private-sector involvement</b> in energy projects.
2. Integration and Incentives	Integrate <b>solar cooking with electrification</b> efforts.
	Provide <b>incentives, and subsidies, and explore financing models</b> like green bonds.
3. Hybrid Solutions	Enhance <b>reliability and reduce costs</b> by combining solar with wind or biomass.
4. Diverse Energy Mix	Emphasize a <b>balanced energy mix</b> with centralized and distributed renewable sources.
5. Financial Support	Implement <b>guarantees and innovative financing</b> to attract private investment.
6. International Collaboration	Support initiatives like <b>ISA's Global Solar Facility</b> for investments in underserved regions.

**Insta Links:**

- [SOLAR ENERGY](#)

**GENERAL STUDIES – 4**

**1. CODE OF CONDUCT FOR JUDICIARY**

**Context:**

The US Supreme Court has **released its first-ever code of conduct**, comprising nine pages of ethics rules for its justices.

**Recent Controversy in the US Justice System:**

The need for a code of conduct move comes as the court faces increased scrutiny over **recent reports of gifts and holiday**

**arrangements received by some of its jurists.** While federal judges in lower courts have had an ethical code since 1973, this marks the first time the Supreme Court has established its own set of rules. Recent opinion surveys indicate that public **trust in the Supreme Court** is near an all-time low.

**What is a Code of Conduct?**

A code of conduct is a set of rules outlining the norms, rules, and responsibilities or proper practices of an individual party or an organization. It can be voluntary or non-voluntary.

**Major Points of the US Supreme Court Code of Conduct**

Section	Key Points
<b>Basis of Ethical Rules</b>	Justices have <b>traditionally followed unwritten ethical rules</b> , but the absence of explicit rules led to misunderstandings. The code outlines rules and principles for justices to follow.
<b>Four Main Sections</b>	The code is divided into four main sections, addressing <b>how justices should behave</b> , perform their duties, and conduct themselves in non-judicial and financial activities.
<b>Speaking at Outside Events</b>	Justices are advised to consider whether speaking at an outside event would <b>create an appearance of impropriety</b> in the minds of reasonable members of the public.
<b>Disqualification from Cases</b>	The code sets out circumstances under which <b>justices should disqualify themselves from participating in a case</b> . This includes instances where a <b>justice has bias or prejudices</b> or a financial interest affected by the case's outcome.

**Criticisms of Code:**

- The code contains **no enforcement mechanism**, and justices will have to voluntarily adhere to its "rules and principles."
- Rules are a **"half-measure" without a means of ensuring** compliance.

Recently, there have been calls for the US Congress to pass legislation **establishing binding ethical guidelines for the Supreme Court.**

**Issue of Ethics in Indian Judiciary:**

1. **YouTuber Savukku Shankar** was sentenced to six months in prison in 2022 by the Madurai bench of the Madras High Court when he accused **Justice GR Swaminathan** of being influenced in a case and made general allegations of corruption in the higher judiciary.
2. In 2018, **four senior-most judges of the Supreme Court** held a press conference and raised a banner of revolt against the then Chief Justice of India (CJI)
3. **Former Chief Justice of India (CJI) Ranjan Gogoi** was

nominated to the Rajya Sabha in 2020. The bench headed by him delivered crucial judgments in cases like Ayodhya, Sabarimala, and Rafale

**Solution:**

- **Implement Bangalore principles of judicial conduct (2002):** Key points include maintaining independence from improper influences, avoiding conflicts of interest, and upholding the rule of law.
- **“Uncle Judges Syndrome”:** The Law Commission of India, in its 230th Report, addresses the issue of “Uncle Judges,” stating that individuals with **family members practising in a High Court should not be appointed as judges** in that same High Court.

## 2. ETHICS: BEING GOOD

**Meaning of Being Good?**

**Being good encompasses** acting in a **morally upright and positive manner**, considering the well-being of oneself and others. It involves ethical conduct, kindness, and a sense of responsibility toward the community.

**Example:** When you **consistently help your elderly neighbours with grocery shopping**, take time to listen to others, and contribute to community initiatives.

**Challenges of maintaining goodness in a world marked by war, violence, and varying definitions of goodness:**

The prevalence of **conflict and diverse interpretations** of what is **‘morally right’** can create a moral quagmire. Individuals may face pressures to conform to **societal norms**, potentially compromising their ethical values.

**Example:** In the current **conflict-ridden Gaza Strip area**, an individual/organization is dedicated to **providing humanitarian aid** to all affected communities. However, they face challenges as various groups have **contrasting definitions** of goodness, **often rooted in deep-seated historical, religious, or political differences**.

**Views of famous Philosophers:**

Philosopher	Quotes About Being Good
Confucius	“Do not do to others what you do not want done to yourself.”
Buddha	“Do good, and leave behind you a monument of virtue that the storms of time can never destroy. Write your name in kindness, love, and mercy.”
Mahatma Gandhi	“You must be the change you want to see in the world”
Vivekananda	“Do good, be good.”

Martin Luther King Jr.	Luther	“Darkness cannot drive out darkness; only light can do that”
		Hate cannot drive out hate; only love can do that”
Socrates		“It is better to suffer an injustice than to commit an injustice.”

**Ethicist view:** We all wish to value **our profile and money** during the course of life. The value of goodness somewhere takes the back seat. However, the moment we see ourselves or our dearest ones facing the world, we expect the **whole lot to Being Good**. A good police officer at the police station, a good doctor at the hospital, a good principal at school, a good fellow passenger, a good shopkeeper, and so on. We expect everyone to first believe and behave as a good human being

**Does the definition of goodness change with time?**

Yes, the definition of goodness can change with time. For instance, **societal views on issues like equality, diversity, and environmental responsibility** may evolve, influencing what is considered morally good in different eras.

However, **few ‘goodness’ remains constant across time**, as fundamental moral principles endure. For example, virtues like honesty, kindness, and compassion are universally regarded as good traits, maintaining their ethical significance throughout history.

**Conclusion:**

Civil servants, through **ethical conduct and a commitment to public service**, can bring about meaningful change. A dedicated civil servant implements **community development programs** to uplift marginalized populations. By ensuring fair access to **education, healthcare, and employment opportunities**, the civil servant positively transforms the lives of individuals, contributing to the overall well-being of the community.

**Try to answer this question:**

**Q. In your opinion becoming good is more important or becoming powerful?**

## CONTENT FOR MAINS ENRICHMENT

### 1. SILENT DIWALI

**Context:** Seven villages in the **Erode district of Tamil Nadu**, celebrated Diwali without firecrackers to protect the **avian population at a nearby bird sanctuary**.

Over 900 families committed to a quieter celebration during

the breeding season, recognizing the sensitivity of the period. For 22 years, these communities have opted for a **conservation-minded approach to Diwali**, limiting festivities to sparklers and new clothes for children.

**Values shown by villagers are** Environmental Ethics, Community Harmony, Sustainability, Peaceful Coexistence, etc.

## 2. TAMIL NADU ENCOURAGING WOMEN WORKFORCE

### Context:

Tamil Nadu is a significant contributor to India's manufacturing sector, with **43% of the country's women workforce in manufacturing** employed in the state.

### Private Initiatives:

Initiative	Description
<b>Titan's Comprehensive Training</b>	Titan Company Limited provided comprehensive training to women workers, including <b>essential life skills, menstrual hygiene, and safety</b> .
<b>Ola's Future Factory Diversity</b>	Ola's Future Factory deliberately hired women, emphasizing their <b>productivity and quality of work</b> , breaking gender norms in manufacturing.  Ola implements <b>internal complaint committees</b> to address concerns, contributing to a safe and inclusive working environment.
<b>Ashok Leyland's All-Women Line</b>	Ashok Leyland established its <b>first all-women production line</b> , empowering 80 skilled women to assemble engines and address the growing demand.

Tamil Nadu's success in fostering women's employment is attributed to factors like:

1. Competitive wages
2. Well-formulated policies such as free and safe transport, internal complaints committees, and maternity leave
3. Well-networked urban infrastructure
4. Good education facilities
5. Provision of crèches
6. Access to healthcare

Despite progress, challenges remain, including the **need for greater acceptance of women in leadership roles and continuous efforts** to ensure equal treatment and protection against discrimination.

**Usage:** The examples can be used in Economy/ Women related Qn/ Ethics (Gender inclusivity) / Essay

## 3. AUSTRALIA APOLOGISES FOR THALIDOMIDE TRAGEDY

### Context:

The Australian government has **announced a formal apology** to individuals impacted by the **thalidomide tragedy**, a drug prescribed for morning sickness during the 1950s and 1960s that led to **severe birth defects**.

### What happened?

Thalidomide **is a sedative drug prescribed to pregnant women** in order to relieve pregnancy nausea in the 1950s. It was later found to cause malformation of limbs, facial **features and internal organs** in unborn children.

Notably, it **was not tested on pregnant women** before approval, resulting in global medical reforms.

**Over 10,000 children worldwide suffered birth defects**, and approximately 40% did not survive beyond a year.

**Usage:** The Australian government's apology for the thalidomide tragedy reflects ethical values such as **accountability, empathy, and recognition of past failures**. Also, the tragedy demonstrates the need for **strictly enforced regulation of drug testing, marketing, dispensing, and use**.

## 4. LONELINESS A SIGNIFICANT GLOBAL HEALTH THREAT

### Context:

The [World Health Organization](#) (WHO) has **declared loneliness** a significant global health threat, highlighting its **mortality impact equivalent to smoking 15 cigarettes a day**.

### What is Loneliness?

It is a state of **feeling emotionally isolated or lacking meaningful connections** with others, leading to a sense of solitude and social disconnection.

### Issues Caused by Loneliness:

Issues	Examples
<b>Mental Health Challenges</b>	Depression, anxiety, increased stress levels
<b>Physical Health Impact</b>	The WHO highlights increased risks of <b>dementia</b> and <b>cardiovascular diseases</b> in lonely older adults, with 5-15% of adolescents experiencing loneliness.
<b>Cognitive Decline</b>	Increased risk of dementia in older adults
<b>Social Isolation</b>	Limited social interactions, feeling excluded

<b>Impact on Adolescents</b>	Higher likelihood of dropping out of school
<b>Economic Consequences</b>	Poorer job satisfaction, performance at work
<b>Negative Impact on Well-being</b>	Overall reduced quality of life

**Solution:**

1. **Recognize loneliness as a pressing health concern**, and prioritize social connections
2. WHO has launched an **international commission, led by U.S. Surgeon General Vivek Murthy** and African Union youth envoy
3. Dr. Tedros Adhanom Ghebreyesus, the **WHO Director-General**, emphasizes the need to establish **social connection** as a global health priority.
4. **Tech-Based Solutions for Social Connection:** Virtual platforms, such as online communities and social apps, foster connections among individuals worldwide.

**Usage:** The example can be quoted in Indian Society/ Mental Health/ Essay Question

## 5. BENGALURU'S CLIMATE ACTION PLAN (CCAP)

**Context:**

Bengaluru launched its Climate Action Plan (CCAP) in line with C40 Cities' commitment to tackle climate change.

- Implementation Agency: **Bruhat Bengaluru Mahanagara Palike (BBMP)**

**About the objectives:**

1. **269 actions** were outlined to mitigate climate change impacts in areas such as including urban heat, flooding, droughts, thunderstorms, lightning, and air pollution
2. Bengaluru commits to **carbon emission reduction by 2030** and **carbon neutrality by 2050**
3. The BBMP has engaged the **World Resources Institute (WRI)** as a global consultant to formulate the CCAP for 2050

**What is CCAP?**

It is a part of global efforts to **identify and implement climate actions**, addressing vulnerabilities like urban flooding and pollution.

**What is C40?**

It is a **global network of nearly 100 mayors** of the world's leading cities that are united in action to confront the climate crisis. 6 Indian Cities namely **Delhi NCT, Mumbai, Chennai, Kolkata, Bengaluru, and Ahmedabad** are parties to it

Usage: The example can be used in Disaster Management Qn

### FACTS FOR PRELIMS

#### GS-1

## 1. AO AND SÜMI NAGA COMMUNITIES IN NAGALAND

**Context:**

Ao and Sümi Naga communities in Nagaland follow practices passed down through generations, **preserving seeds from successful harvests for successive cycles.**

- Traditionally agrarian, the **Ao and Sümi Naga communities** practise jhum or shifting cultivation

**About Ao Naga Community:**

**The Aos**, a major Naga ethnic group in **Nagaland's Mokochung District**, refer to themselves as Aoer, meaning **"those who came" from across the Dikhu River**. They were the first Nagas to **embrace Christianity**, incorporating Western education. The **Moatsü Festival** is observed in early May after sowing, and the **Tsüngremong Festival**, the community's largest, is celebrated right after the harvest.

**About Sumis:**

**The Sümis are a major Naga ethnic group** inhabiting the territories of Zünheboto District, parts of Niuland District and Kiphire District in the Northeast Indian state of Nagaland. They are recognised as a **Scheduled Tribe (STs)**. The ancestral religion of the Sümis was the **worship of nature**. Sümis are 99% Christians. Very few of them still practice animism. **Tülüni (July 8)** is a festival of great significance for the Sümis.

## 2. CONSTANTINE JOSEPH BESCHI

**Context:**

Constantine Joseph Beschi, an **Italian Jesuit missionary** known as **Veeramamunivar**, maintained a close friendship with Chanda Sahib, the Nawab of the Carnatic, and served as his Dewan.

- The Nawab gifted **Veeramamunivar** four villages and conferred upon him the surname Ismattee Sannyasi.

**Who was Chanda Sahib?**

**Chanda Sahib (died 1752)** was a subject of the **Mughal Empire and the Nawab of the Carnatic** between 1749 and 1752. Initially, he was supported by the French during the 2<sup>nd</sup> Carnatic Wars. After his defeat at Arcot in 1751, he was captured by the Marathas of Thanjavur and executed.

**What is the Second Carnatic War (1749-1754)?**

It conflict arose from a succession dispute in the south after the death of the Nizam of Hyderabad.

### Who Supported Whom?

#### The Second Carnatic War

Hyderabad (For Nizam's Post)	Carnatic (For Nawab's Post)
Muzaffar Jung (Supported By French)	Chanda Sahib (Supported By French)
Nasir Jung (Supported By British)	Muhammad Ali (Supported By British)

Chanda Sahib, backed by the French, besieged Tiruchirappalli but faced defeat at the hands of English forces. His son was defeated and killed at Arcot, leading to Chanda Sahib's capture by the Marathas and subsequent beheading. Muhammed Ali was installed as the Nawab of Arcot by the English in 1754. The Treaty of Pondicherry led to the cessation of the conflict.

### 3. PM-KISAN SCHEME

**Context:**

Prime Minister will release the 15th instalment of the PM-KISAN scheme on November 15, celebrated as 'Janjatiya Gaurav Diwas' (Tribal Pride Day), at Birsa College, Khunti, Jharkhand.

#### About PM-Kisan scheme

- It is a **central sector scheme** (100% centrally funded) and was launched in **Feb 2019**, to provide income support to the farmers and their families.
- **Support amount:** Under the scheme, income support of **₹6,000 per year** in three equal installments of ₹2000 is provided to **all landholding farmers** (initially limited to small and marginal farmers but later extended to all)
- **Nodal Ministry:** Ministry of Agriculture and Farmer's welfare
- **Physical Verification Module:** A mandatory physical verification of 5% beneficiary every year is being done as per the provisions laid down in the scheme.
- **Mode of Transfer:** Via Direct Benefit Transfer (DBT)
- **Exclusions:** All institutional landholders; or if one of the family members hold government job (excluding MTS/Class IV/ Group D employee); or has paid income tax in last assessment year.



**Similar programmes by states:**

1. Bhavantar Bhugtan Yojana- MP.
2. The Rythu Bandhu scheme- Telangana.
3. Krushak Assistance for Livelihood and Income augmentation (KALIA)- Odisha

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**About Tribal Pride Day**

Tribal Pride Day is observed on November 15, coinciding with Jharkhand's foundation day. The day commemorates Birsa Munda, born on November 15, 1875, a valiant leader in the movement against British repression. The central government approved the establishment of **10 tribal freedom**

fighter museums across India on Independence Day 2016.

### 4. INDIAN MINIATURE PAINTING

**Context:**

The art historian B N Goswamy gained prominence with his ground-breaking 1968 article, revealing family lineages of artists crucial to the development of miniature painting.

**What was Goswamy's contribution?**

His contribution lies in revealing that painting styles were family-dependent rather than region-dependent. He reconstructed family networks of renowned artists, such as Pandit Seu and his sons Nainsukh and Manaku.

**About Miniature Paintings:**

#### Indian Miniature Paintings

About	Indian Miniature Painting
The word 'Miniature' meaning	The word ' <b>miniature</b> ' is derived from the Latin word 'Minium', which means <b>red lead paint.</b> It is generally confused with the word minimum, which would mean that they were small in size.
Indian Miniature paintings	Indian miniature painting is a small and detailed art form known for <b>bright colours, intricate patterns, and elaborate detailing</b>
Evolution	The history of Indian Miniature Paintings has started in the <b>6th – 7th century (Buddhist Pala dynasty).</b> It flourished under the <b>Mughal Empire</b> but declined during Aurangzeb's reign. This led to the emergence of new traditions like <b>Pahari painting</b> in regions like Himachal Pradesh
Techniques of Miniature Paintings	Executed in <b>traditional tempera technique.</b> Preconditions include not exceeding <b>25 square inches</b> , the subject <b>not more than 1/6th</b> of the actual size, few human characters with a visible front face, <b>big eyes, pointed nose, slim waist features, natural colours, and a limited colour palette.</b>
Different Schools of Indian Miniatures	
Pala School of Art	Flourished during the <b>8th to 12th century</b> in eastern India. Mostly used <b>palm leaf</b> and paper. Prominent painters: <b>Dhimman and Vitapala.</b>
Apabhramsa School of Art	Originated in <b>Gujarat and Mewar</b> region. Divided into illustrations on palm leaf and paper. Motivated by <b>Jainism</b> , later adopted <b>Vaishnavism</b> themes. Unique features include <b>fish-shaped bulging eyes, pointed noses</b> , double chin, and angular faces. Famous examples: are <b>Kalpasutra and Kalakacharya Katha.</b>
During Delhi Sultanate	Indo-Persian style drawing <b>from Iranian and Jain influences.</b> Characteristics include groups of people in rows, narrow bands of decoration, and bright colours. <b>Nimat Nama</b> , a manuscript during Nasir Shah's reign, depicts scenes of food preparation
Mughal Era Miniature Painting	Mughal emperors introduced a <b>Persian-inspired style.</b> Focus on court scenes, hunting, and historical events. Characterized by subtleness, naturalism, brilliant colours, and <b>foreshortening technique.</b> Early Mughal painters included <b>Bihzad.</b> Akbar established <b>Tasvir Khana</b> and encouraged Indian artists. Jahangir emphasized naturalistic portraits and decorative margins. Shah Jahan introduced artificial elements and increased the use of gold and silver.
Rajput Paintings	Flourished under <b>Hindu Rajput rulers from 1500 CE to the middle of the 19th century.</b> Based on Indian traditions, inspired by epics, Puranas, folk themes, and musical subjects. Divided into Rajasthani and Pahari schools.
Rajasthani School of Painting	Executed in Rajputana, with themes of <b>religion, love, court scenes, and royal portraits.</b> Bold outlines, brilliant colours. Common themes include Padmavati's story, Mahabharata, Kadambari, and Panchatantra. Developed individual styles in Bundi, Kota, Jaipur, Mewar, Marwar, Amber, Bikaner and Kishangarh. <span style="color: red; font-size: x-small;">To know more Visit Insights IAS Daily CA</span>

### GS-2

### 1. DIGITAL ADVERTISEMENT POLICY, 2023

**Context:**

The Ministry of Information and Broadcasting has sanctioned the "Digital Advertisement Policy, 2023," which aims to expand the government's outreach through digital media channels.

**Key Highlights:**

- **Digital Penetration and Media Shift:** With increasing internet users and telecom subscribers, the policy responds to the shift in media consumption towards digital platforms.

- **Government Outreach:** The policy enables the **Central Bureau of Communication (CBC)** to employ **digital advertising for government initiatives**, using digital media's wide reach to **efficiently convey citizen-centric messages**.
- **Expansion Across Various Platforms:** CBC will leverage **digital audio platforms, Over-the-Top (OTT) services, video on demand, mobile apps, and social media for government advertising**.
- **Transparency and Efficiency:** The policy introduces **competitive bidding for rate discovery**, ensuring **fair pricing and efficiency**.
- **Enhanced Digital Outreach:** Aligning with the **current social media presence** of various government departments, **this policy amplifies the outreach of government schemes and initiatives** through CBC's extensive advertisement dissemination.
- **Adaptability and Stakeholder Engagement:** The policy acknowledges the dynamic nature of the digital landscape and incorporates provisions to embrace new technologies and platforms

**About Central Bureau of Communication:**

The **Central Bureau of Communication (CBC)** is a unit of the **Ministry of Information and Broadcasting**. The CBC provides **communication solutions to Ministries, Departments, Public Sector Undertakings (PSUs), and autonomous bodies**. The CBC was set up on December 8, 2017 by **integrating the following departments:**

- Directorate of Advertising and Visual Publicity (DAVP)
- Directorate of Field Publicity (DFP)
- Song & Drama Division (S&DD)

## 2. BROADCASTING SERVICES (REGULATION) BILL, 2023

**Context:**

The Union Ministry of **Information and Broadcasting in India** has proposed the **Broadcasting Services (Regulation) Bill, 2023**, to replace the **Cable Television Networks (Regulation) Act of 1995**.

- The **existing legislation is deemed outdated** as it predates the significant technological changes in the broadcasting sector, **including the rise of digital platforms such as DTH, IPTV, OTT, and integrated models**.
- The draft bill aims to provide a **consolidated and modernized framework** for regulating **broadcasting services, covering traditional and digital content**.

**Key highlights** include the **introduction of Content Evaluation Committees, a Broadcast Advisory Council for self-regulation, differentiated program and advertisement codes, accessibility measures for persons with disabilities, and statutory penalties linked to the financial capacity of entities**.

## 3. AAINA PORTAL

**Context:**

The Ministry of Housing and Urban Affairs (MoHUA) has launched the 'Aaina Dashboard for Cities' portal ([www.aaina.gov.in](http://www.aaina.gov.in)).

**What is the 'Aaina Dashboard for Cities'?**

It is a portal that enables **Urban Local Bodies (ULBs) to voluntarily submit key data**, including audited accounts and performance metrics, on five thematic areas.

1. Political & Administrative Structure
2. Finance
3. Planning
4. Citizen-Centric Governance
5. Delivery of Basic Services.

**Information Collection on Five Thematic Areas**



The Ministry, through the **Digital India Corporation (DIC)**, will offer support to ULBs and states during the data submission process.

**Aim of the portal:**

The portal promotes **healthy competition, inspires improvement, and facilitates peer learning** among ULBs. The dashboard for cities **does not rank Urban Local Bodies (ULBs)**. Instead, it functions as a tool for **comparing cities in similar positions** and fostering learning among them.

**About ULBs:**

Urban Local Bodies, are **constitutional bodies** recognized by the **74th Constitution Amendment Act of 1992** in India. Categorized based on population size, ULBs include Nagar Panchayats for **'rurban' areas**, Municipal Councils for smaller urban areas, and Municipal Corporations for metropolitan areas. Term: **5 years** (re-election is scheduled within six months of completion of term)

## 4. ANNAPURNA CERTIFICATE PROGRAMME

### Context:

The Annapurna Certificate Programme, an initiative by the **Indian Council for Cultural Relations (ICCR)**, has recognized six Indian restaurants worldwide for promoting Indian culinary traditions. This annual program acknowledges restaurants contributing to **India's cultural cause** through cuisine on a global scale.

### About ICCR

The Indian Council for Cultural Relations (**founded 1950; HQ: New Delhi; founder: Maulana Azad**), is an **autonomous organisation** of the Government of India, involved in India's global cultural relations, through cultural exchange with other countries and their people.

## 5. NITI AAYOG: SATH-E PROJECT

### Context:

NITI Aayog has released a **report on the Sustainable Action for Transforming Human Capital in Education (SATH-E)**

**Sustainable Action for Transforming Human Capital in Education (SATH-E)**

What is SATH-E Project?	
<b>About</b>	The SATH-E Project, <b>launched by NITI Aayog in 2017</b> , aims to ensure quality school education and promote <b>socially inclusive, regionally balanced, and sustainable education growth</b> in collaboration with state governments.
<b>Focus Areas</b>	Education and Health
<b>Target</b>	It seeks to identify and build <b>three future 'role model' states</b> in the education sector (Jharkhand, Madhya Pradesh, and Odisha) and transform <b>elementary and secondary school education</b>
<b>Key findings of recent report</b>	India, with <b>five times more schools than China</b> despite similar enrolment, faces a challenge with <b>over 50% of primary schools</b> in many states <b>having fewer than 60 students</b> There are <b>2-5 lakh untrained</b> teachers at the primary and upper primary levels, <b>not meeting Right to Education requirements</b>
<b>Recommendations</b>	<b>Merge small, and low-enrolment schools</b> with nearby ones, etc. E.g., <b>Jharkhand's merger</b> of 4,380 schools saved Rs 400 crore, optimizing resources by reducing teacher and infrastructure needs Consider the <b>decentralization of powers to principals, district, and block officers</b> , etc. <b>Restructuring (Cadre restructuring) and recruitment of teachers</b> to solve issue of teacher's shortage Competency-based assessment reforms Focus on <b>Early Childhood Education</b> and multilingual education
<b>Benefits of School Mergers</b>	Consolidation of resources, <b>improvement of Pupil-Teacher Ratio</b> , better infrastructure, enhanced academic environment with e-Learning and co-curricular facilities
<b>Concerns with School Mergers</b>	Violation of <b>Right to Education (RTE) Act, 2009</b> ; potential increase in dropout rates, especially in tribal belts <span style="float: right;">To know more Visit Insights IAS Daily CA</span>
<b>State Government's Response</b>	<b>States provides daily allowance</b> , one-time facilitation allowance, and travel allowance as per RTE norms for affected students due to school merger <b>District collectors</b> authorized to cancel merger if genuine concerns arise

## 6. IPEF: SUPPLY CHAIN RESILIENCE AGREEMENT

### Context:

India, the US, and 12 other members of the **Indo-Pacific Economic Framework (IPEF)** have signed a **supply chain resilience agreement**, aiming to reduce dependence on China and enhance the manufacturing of essential goods within

member nations.

### What is a supply chain?

**A supply chain is a network of organizations**, people, activities, information, and resources involved in the creation and delivery of a product or service from the supplier to the customer.

**Supply chain resilience** refers to **the capacity of a supply chain to adapt, recover, and withstand disruptions**, ensuring continuity and stability in the face of challenges such as natural disasters, economic fluctuations, or other unforeseen events.

### Aim of the Agreement:

The agreement (pillar II of IPEF) among **IPEF** members aims to **fortify global supply chains** and enhance **adaptability, stability, and sustainability**. It becomes effective after implementation by any of the **five member countries**, with monitoring and implementation overseen by the **IPEF Supply Chain Council**.

### About IPEF:

IPEF Dimensions	Details
<b>About</b>	IPEF is a <b>US-led framework for 14 participating countries</b> to solidify their relationships and engage in crucial economic and trade matters that concern the region.
<b>Launch</b>	Launched by <b>US President Joe Biden in May 2022</b>
<b>Founding Members</b>	United States, India, Australia, Brunei, Fiji, Indonesia, Japan, South Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, and Vietnam.
<b>Significance</b>	IPEF members represent <b>40% of the global GDP and 28% of the world's trade</b>
Pillars of IPEF	
<b>Pillar I (Trade)</b>	Enhancing economic engagement, trade agreements, and market access among IPEF member countries.
<b>Pillar II (Supply Chains)</b>	Making supply chains more resilient, robust, and well-integrated through crisis response measures, cooperation, logistics and connectivity, and promotion of investments.
<b>Pillar III (Clean Economy)</b>	Advancing cooperation on research, development, commercialization, availability, and deployment of clean energy, regional hydrogen initiatives, and climate-friendly technologies.
<b>Pillar IV (Fair Economy)</b>	Strengthening implementation of effective anti-corruption and tax measures to boost commerce, trade, and investment among IPEF economies.
<b>India's Participation</b>	Joined Pillars II to IV; <b>Undecided on joining the trade pillar</b>
<b>Issues with IPEF</b>	Dependence of participating countries on China, Centrality of SEA, Potential non-starter, Taxation issues, Lack of common grounds for countries
<b>Reasons for India's Participation</b>	Being part of a multilateral forum, the Advantages of China

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## 7. 2023 APEC SUMMIT

### Context:

U.S. President Joe Biden and Chinese President Xi Jinping, in their first summit in a year, agreed to **restore military communications** between the two countries.

- India is **not a member of APEC** but is attending the summit.

### Issues Discussed:

The leaders discussed issues such as the **production of fentanyl, Taiwan, AI talks, and climate change cooperation**. While the talks were deemed constructive, differences in Taiwan persisted, with Xi urging the U.S. to **stop arming the island**.

About APEC



2023 APEC Summit



Aspect	About APEC
Backgrounds	Started in <b>1989 (informal)</b> , (HQ: Singapore) formally <b>established in 1993 with 12 members</b> . Currently has 21 member economies. India, an observer since November 2011, has <b>applied for membership</b> .
Member Countries	<b>Founding members</b> Australia, Brunei, Canada, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, United States. <b>Joined later:</b> China, Hong Kong, Chinese Taipei, Mexico, Papua New Guinea, Chile, Peru, Russia, Vietnam.
Goals	Primary goal: Support <b>sustainable economic growth</b> and prosperity.
Objectives	Objectives include <b>free and open trade, regional economic integration</b> , economic and technical cooperation, human security, and good business environment. <b>Bogor's Goals</b> were set in 1994 for free and open trade and investment.
Significance	Represents <b>nearly 50% of world trade and about 57% of world GDP</b> .
Functions	APEC projects provide digital skills training, support for indigenous women, and initiatives for energy efficiency. Adapts to new challenges, including disaster resilience, pandemic planning, and counter-terrorism.
Achievements	The region's <b>real GDP increased</b> from USD 19 trillion in 1989 to USD 42 trillion in 2015. Average <b>tariffs were reduced</b> from 17% in 1989 to 5.2% in 2012. <b>Improved Ease of Doing Business</b> by 14.8% (2009-2015).
Consensus	Operates as a cooperative, multilateral economic and trade forum. <b>Decision-making is by consensus</b> , with <b>no binding</b> commitments.
Challenges	Trade War, Shrinking Economy due to Covid, Rising Unemployment, Creation of Sub-Regional Agreements.
India and APEC	India aspired to become a member. But was <b>Denied in 2007</b> due to reasons like lack of integration into the global system, fears about India's politics and policies.
Why APEC Needs India?	For <b>economic growth, trade potential</b> , labour force, and regional contribution. <small>To know more Visit insights IAS Daily CA</small>
Advantages for India	Advantages for India include <b>negotiating trade</b> , integrating with the global economy, boosting growth, and economic reforms.
Way Forward	APEC countries should work together for <b>sustainable and equitable growth</b> . The inclusion of India is crucial for free and open trade in the Indo-Pacific region.

## 8. INNOVATION HANDSHAKE

Context:

India and the United States have officially launched the “**Innovation Handshake**” agenda, a **collaborative effort** aimed at **deepening bilateral ties in technology**.

- The “**Innovation Handshake**” signals a commitment to strengthen the **start-up ecosystem and promote cooperation in Critical and Emerging Technologies**.
- The concept, developed under the **US-India Commercial Dialogue**, aims to **connect dynamic start-up ecosystems, address regulatory hurdles, and promote innovation and job growth**, especially in emerging technologies.

The initiative focuses on **priority sectors identified under the US-India Initiative for Critical and Emerging Technology (ICET)**. The goal is to **foster a tech partnership** and open up opportunities for **collaboration while addressing challenges in these sectors**.

## 9. CARA: INDIA'S ADOPTION REGULATION BODY

Context:

The Supreme Court has recently **questioned the significant delay in India's adoption processes**. Approximately **30,000 prospective parents** wait for an average of three years, with only 10% of orphaned children adopted annually.

	Description
About <b>CARA</b>	<b>Central Adoption Resource Authority (CARA)</b> is a statutory body of the Ministry of Women & Child Development. It was established under <b>Juvenile Justice Act, 2015</b> , but was founded in <b>1990</b> . It is a <b>nodal body for the adoption</b> of Indian children.

<b>CARA Overview</b>	CARA is India's adoption regulation body, overseeing the adoption of <b>orphaned, surrendered, and abandoned children</b> . CARA <b>monitors and regulates various adoption-related bodies</b> , facilitating a seamless adoption process involving registration, home study reports, referrals, court petitions, and post-adoption follow-ups.
<b>Inter-Country Adoptions</b>	CARA is a <b>signatory to the 1993 Hague Convention</b> , facilitating inter-country adoptions to find suitable families for children beyond their state of origin. India ratified the convention in 2003.
<b>Laws Governing Adoption</b>	Adoption in India is governed by the <b>Hindu Adoption and Maintenance Act, 1956 (for specific religions)</b> and the <b>Juvenile Justice (Care and Protection of Children) Act, 2015</b> . CARA plays a role in the latter.
<b>Evolution of CARA's Functions</b>	CARA's powers expanded with changes in juvenile justice laws. The 2015 Juvenile Justice Act empowered CARA to streamline adoption processes, introducing an <b>e-governance system (CARINGS)</b> and enhancing transparency.
<b>Recent Amendments (2022)</b>	The 2022 amendment to the Juvenile Justice Act <b>decentralized responsibilities, authorizing local District Magistrates</b> to issue adoption orders for speedy disposal.
<b>Challenges Faced by CARA</b>	Challenges include <b>declining adoption figures</b> , infrastructural deficiencies, poor functioning of agencies, lack of awareness, and procedural issues, hindering children from entering safety nets. It faced criticism during the <b>recent same-sex marriage verdict</b> for <b>restricting queer and unmarried couples from adopting</b> . <b>Procedural challenges</b> include identification failures, confusion due to complex laws, and a bureaucratic system. Critics express concerns about the <b>dehumanization of the adoption process</b> . Current laws, such as the Hindu Adoption and Maintenance Act and the Juvenile Justice Act, are criticized for <b>not adequately protecting children's interests</b> .
<b>Proposed Solutions</b>	Suggestions include a <b>child-centric, optional, enabling, and gender-just special adoption law</b> .

GS-3

## 1. INSURANCE SURETY BOND

**Context:**

The **National Highways Authority of India (NHAI)** has embraced an **innovative approach**, accepting an **Insurance Surety Bond** in place of a **Bank Guarantee for the Toll Operate Transfer (TOT)**, marking the first such use in the road infrastructure sector.

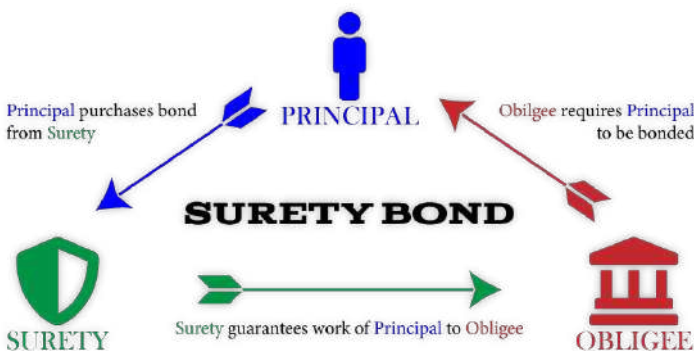
- This move aims to **boost liquidity, encourage private participation in highway development, and promote the 'Ease of Doing Business'**.
- The **Insurance Surety Bonds**, facilitated by NHAI in partnership with insurance companies, serve as a financial guarantee, underlining their significance in evolving the road infrastructure landscape.
- This approach has **received substantial traction**, with over 40 such bonds issued for various NHAI contracts, signalling the potential for wider adoption.
- The **Ministry of Finance, Government of India** has recognized **e-BGs and Insurance Surety Bonds** at par with Bank Guarantees, consolidating their role in government procurements

**About Surety Bonds:**

A surety bond is a **legally binding contract** that is a **unique type of insurance**. It is a **three-party agreement** that guarantees **compliance, payment, or performance of an act**.

A surety bond is a **promise to be liable for the debt, default, or failure of another**. The principal is the **debtor**, and the surety is the **third person who becomes responsible for the payment of the obligation if the principal is unable to pay or perform**. The **principal remains primarily liable, whereas the surety is secondarily liable**.

Surety bonds are **used as an assurance that the issuer will pay any debts if the other party fails to do so**. For example, surety bonds can be used as a **substitute for bank guarantees in government procurement**



## 2. CONCEPT OF WHITE HOLE AND BIG BOUNCE

**Context:**

**Carlo Rovelli**, an Italian physicist and author of popular-science books, explores the concept of **white holes** in his latest work, "**White Holes: Inside the Horizon**."

- These are considered the **opposite of black holes** and might generate new universes, a theoretical idea supported by the math

**White Holes vs. Black Holes:** White holes are akin to a movie running in reverse. Matter falling into a black hole, according to Rovelli, **bounces back in the form of a white hole**, predicted by quantum mechanics, and **alters our understanding of space and time**

- **Quantum Bounce Theory:** Black holes potentially transition to white holes via a bounce. This theory suggests the **possibility of a universe emerging from a white hole**, creating something similar to the **Big Bang, implying we might be products of a "big bounce."**
- **Concept of Time:** Rovelli suggests that time isn't uniform, as discovered through relativistic effects, where it passes differently for different observers. **It's a product of space-time, influenced by gravity and subject to quantum granular aspects.**
- **Space-Time and Quantum Effects:** The combination of quantum mechanics and gravity indicates that **space-time might have granular aspects**, influenced by what's known as **"time-steps" or atoms in space that are static entities shaping space itself.**

## 3. ATTENBOROUGH ECHIDNA

**Context:**

The **Zaglossus attenboroughi**, a **long-beaked echidna** named after David Attenborough and last seen in 1961, **has been re-discovered in a remote region of Indonesia**.

- This elusive creature, **known for its nocturnal and reclusive nature**, was found in the **Cyclops Mountains of Papua, Indonesia**.
- The discovery also revealed a **tree-dwelling shrimp, a kind of honeyeater bird** unseen since 2008, and several **previously unknown underground species**.



**Attenborough Namesake Species:** Sir David Attenborough has various species named after him, including an extinct plesiosaur, a Tasmanian snail, a gecko from Australia, and a carnivorous pitcher plant from the Philippines.

**About David Attenborough:**

David Attenborough, the esteemed British naturalist and broadcaster, is known for his extensive contributions to natural history and environmental conservation. He's been the face of several ground-breaking wildlife documentaries and series that explore the wonders of the natural world. Attenborough's work emphasizes the urgency of conservation and educates the global audience on the beauty and importance of the world's ecosystems. He's received numerous awards and honours for his work and has had various species named after him in recognition of his dedication to the field of biology and palaeontology

## 4. CELL BROADCAST ALERT SYSTEM (CBAS)

**Context:**

The National Disaster Management Authority's (NDMA) Cell Broadcast Alert System (CBAS) and Google's early earthquake warning system did not effectively reach people during recent seismic events in Delhi and surrounding areas.

**What Happened?**

- CBAS, tested by the NDMA, failed to send alerts in North India, raising concerns about the effectiveness of these early alert systems during seismic events.
- NDMA's seismo.gov.in website crashed during the tremors, hindering access to crucial information.
- Google's Android Earthquake Early Warning system sent alerts in regions near the India-Nepal border where shaking was stronger, the tremors in Delhi did not trigger alerts due to their lower intensity

**What is NDMA's Cell Broadcast Alert System?**

NDMA's Cell Broadcast Alert System is a cutting-edge technology enabling the government to send urgent disaster management messages to all mobile devices within a specific geographic area.

- Developed by C-DOT under the Department of Telecommunication, it is designed to deliver critical alerts for severe weather warnings, public safety messages, evacuation notices, and other emergency information.
- The system was recently tested in collaboration with the Department of Telecommunications, with sample alerts labelled as "SAMPLE TESTING MESSAGE."

**About NDMA:**

National Disaster Management Authority (NDMA) (founded 2005; HQ: New Delhi) is an apex body mandated to lay down policies for disaster management. It was established through the Disaster Management Act 2005. It is headed by the Prime Minister.

## 5. CLOUD SEEDING

**Cloud Seeding**  
**Context:** Delhi is considering cloud seeding as a potential solution to tackle its persistent air pollution crisis.

Aspect	Description
What is Cloud Seeding?	The process of <u>artificially generating rain</u> by introducing particles like <u>silver iodide, Dry Ice etc.</u> crystals into clouds.
How it works?	Cloud seeding employs planes or ground-based generators to spray clouds with chemicals, promoting the <u>condensation of smaller particles into larger rain droplets.</u>
Cloud Seeding Methods	<p><b>Static Cloud Seeding:</b> Introduces ice nuclei (e.g., silver iodide or dry ice) into cold clouds with supercooled liquid water droplets, triggering the formation of ice crystals or snowflakes that fall as precipitation</p> <p><b>Dynamic Cloud Seeding:</b> Induces rain by boosting vertical air currents, a more complex process dependent on a sequence of events.</p> <p><b>Hygroscopic Cloud Seeding:</b> Sprays fine particles of <u>hygroscopic materials</u> (e.g., salts) into warm clouds to act as cloud condensation nuclei, enhancing cloud reflectivity and stability.</p>
Applications	Enhances <u>winter snowfall and mountain snowpack,</u> supplementing the natural water supply for surrounding communities. <u>Prevents hailstorms,</u> dissipates fog, induces rainfall in drought-prone regions, and reduces air pollution; Controlling Forest fires
Examples of its use	<p>1. <u>UAE:</u> The United Arab Emirates (UAE) has been using cloud seeding to increase rainfall in its arid region.</p> <p>2. <u>China:</u> China has been using measures like the <u>Beijing Olympics, in 2008.</u></p> <p>3. <u>India:</u> Cloud seeding was used in <u>Solapur in Maharashtra,</u> which led to an increase in about <u>18% of rainfall; 'Project Varshadhari'</u> in Karnataka (2017) to mitigate drought</p>
Challenges	Requires <u>moisture-filled clouds,</u> which may not always be available or predictable. Potential <u>negative environmental and health effects,</u> such as altering the water cycle, soil and water contamination, silver iodide or potassium iodide carry the risk of <u>bioaccumulation and potential toxicity.</u> <span style="background-color: yellow;">To know more Visit Insights IAS Daily CA</span>
Way forward	To promote cloud seeding, <u>achieve scientific consensus</u> on efficacy, establish <u>robust regulatory measures</u> for accountability, and address public concerns proactively.

**Prelims Links:**

**Q.** In the context of which of the following do some scientists suggest the use of the cirrus cloud thinning technique and the injection of sulphate aerosol into the stratosphere? (UPSC 2019)

- (a) Creating the artificial rains in some regions
- (b) Reducing the frequency and intensity of tropical cyclones
- (c) Reducing the adverse effects of solar wind on the Earth
- (d) Reducing the global warming

**Ans: D**

## 6. SOVEREIGN GREEN BOND

**Context:**

In the first issuance of sovereign green bonds (SGrB) for the Financial Year 2024, the auction of five-year maturity bonds was successful, attracting decent investor interest.

**About Sovereign Green Bond:**

A sovereign green bond is a financial instrument that is issued by a sovereign entity, inter-governmental group, alliance, or corporation. The proceeds from the sale of these bonds are earmarked exclusively for projects classified as environmentally sustainable.

In India, sovereign green bonds showcase the country's com-

**mitment to building a low-carbon economy.** They lower the capital cost for green projects by attracting new investors, and mobilizing private capital for sustainable development.

**India's first deal in the sovereign green bond market** financed expenditures in **grid-scale solar and wind, decentralised solar such as solar water pumps for agriculture.**

## 7. GPS ANKLETS

### Context:

In a first for India, a **prisoner in Jammu and Kashmir**, Ghulam Mohammad Bhat, accused under the **Unlawful Activities (Prevention) Act**, has been released on bail with a condition to wear a **Global Positioning System (GPS) tracking device.**

- The GPS tracker, a **small wearable device, is affixed around the ankle, providing real-time location information.**
- The **device is tamper-proof, and any attempt at tampering with it sets off an alarm.** It can also **not be removed by the wearer or any unauthorised person** without damaging it.
- The tracker can be put **on the ankle or arm of a person.** Thus, **there are GPS anklets and GPS bracelets.**
- While GPS trackers are a **common precondition for bail in countries like the United States, the United Kingdom, and Malaysia,** this is the **first instance in India.**

### About GPS:

The **Global Positioning System (GPS)** is a satellite-based navigation system that uses **satellites, receivers, and algorithms to synchronize location, velocity, and time data.** GPS can be used for **air, sea, and land travel.**

GPS works in any weather conditions, anywhere in the world, 24 hours a day, with no subscription fees or setup charges. **Some GPS receivers are so accurate they can establish their location within 1 centimetre.**

GPS was designed by the U.S. military

## 8. EX-BONGOSAGAR

### Context:

The **4th edition of the Bilateral Exercise BONGOSAGAR-23 and the 5th edition of the Coordinated Patrol (CORPAT)** between the **Indian Navy and Bangladesh Navy** took place in the Northern Bay of Bengal.

- **Indian Navy Ships Kuthar, Kiltan, and Maritime Patrol Aircraft Dornier,** along with **Bangladesh Navy Ships Abu Bakr, Abu Ubaidah, and MPA,** participated in the exercise.
- The CORPAT-23 also featured the **maiden Humanitarian Assistance and Disaster Relief (HADR) drills, focusing on a Search and Rescue scenario at sea.**

## 9. FOUR FUNDAMENTAL FORCES OF THE UNIVERSE

### Context:

The concept of **'force' in physics** revolves around four fundamental interactions between subatomic particles:

### Four fundamental forces:

Force	Range	Strength (Relative)	Mediator (Particle)
<b>Gravitational (attractive)</b>	Infinite (long-range)	Weakest	<b>Graviton</b> (Hypothetical)
<b>Electromagnetic (attractive or repulsive)</b>	Infinite (long-range)	Moderate	<b>Photon</b> (It governs phenomena like electricity, magnetism, friction, and tension)
<b>Strong Nuclear</b>	Short-range (10 <sup>-15</sup> m)	Strongest	<b>Gluon</b> (it binds the nucleus of an atom together, <b>preventing it from breaking apart.</b> It sustains nuclear fusion)
<b>Weak Nuclear</b>	Short-range (10 <sup>-18</sup> m)	Weak	<b>W+, W-, Z bosons</b> (it acts on particles moving near the speed of light)

**However, the classification of fundamental forces faces challenges:**

- **Force carriers,** like the **Higgs boson** and pion, may not be considered truly 'fundamental.'
- Interactions such as **the electroweak force** raise questions about the number of fundamental forces
- **The unique nature of gravity** further complicates the classification, as it is fundamentally different from other forces.

## 10. SATURN'S RINGS

### Context:

Saturn's rings **will not disappear permanently by 2025.** Although they will become almost **invisible from Earth during that time,** it is a regular occurrence due to the thinness of the rings.

### What is Saturn's ring and how it was formed?

Saturn's rings are a **vast system of icy particles, rocks, and dust that orbit the planet**. They were formed from the **debris of comets, asteroids, and moonlets** that either collided with each other or were captured by Saturn's gravity.

### How will the ring become invisible for some time?

Saturn's rings will become **almost invisible from Earth in 2025** due to the **edge-on perspective from our viewpoint**. This phenomenon occurs because the rings are so thin that, when seen from a distance, they appear to vanish when viewed edge-on. The rings' edge-on appearance happens twice per Saturnian year, making them seem to vanish, but they will gradually reappear.

### Which planets have rings and why do earth doesn't have rings?



**Saturn, Jupiter, Uranus, and Neptune** have rings. Earth does not have rings because any rings it might have formed in the past would have likely been disrupted by **various gravitational forces and atmospheric effects**. Additionally, the relatively **strong gravitational influences of the Moon** and other celestial bodies make it challenging for Earth to maintain stable rings.

### Recently Saturn became a planet with most moons.

Saturn



**Context:** Saturn has regained its title as the planet with the most moons in the solar system. The discovery of **62 new moons brings Saturn's total to 145**, surpassing Jupiter, which has **95 officially recognized moons**.

	Jupiter	Saturn
		
Diameter	<b>Largest Planet.</b> More than twice as massive as all other planets combined	<b>Second largest planet</b> in the solar system
Orbital Period	11.9 Earth years	29.5 Earth years
Number of Moons	95	145
Why do they have so many moons?	Saturn and Jupiter have many moons due to their <b>large size, gravitational influence, and the presence of debris and material</b> in their respective regions of the solar system.	
Notable Features	<b>Great Red Spot</b> (giant storm), Galilean satellites (Io, Europa, Ganymede, Callisto)	<b>Spectacular ring system</b> with seven rings, including the moon Titan <small>Visit Insights IAS Daily CA</small>
Composition	Thick atmosphere of <b>helium and hydrogen</b>	
Exploration	Galileo (1989); Juno (2011); Europa Clipper (2024)	Visited by Pioneer 11, Voyagers 1 and 2, and Cassini (orbited Saturn)

## 11. INDIA EXEMPTED FROM CITES RST

### Context:

India has been removed from the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Review of Significant Trade (RST)** for Red Sanders.

### What is CITES RST?

**CITES RST (Review of Significant Trade)** is a process where the CITES Standing Committee closely **examines a country's species exports** to ensure compliance with CITES regulations.

- Noncompliance may result in disciplinary actions, including trade suspensions.

### Why was India exempted from CITES RST?

India has been under RST for Red Sanders since 2004. It has now been exempted, allowing farmers in India to participate in the legitimate trade of Red Sanders. The exemption is attributed to the **2022 amendment to the Wildlife (Protection) Act**, aligning with CITES provisions under the CITES National Legislation Programme (NLP).

- This has elevated India's status **from Category 2 to Category 1 by the CITES** Standing Committee.

### About Red Sanders

Red sanders, classified as **endangered** by the IUCN, CITES (**Appendix II**), and Wildlife Protection Act (**Schedule IV**), are native to a specific region within the **Eastern Ghats** and are known for their unique flora. It is referred to as **'the pride of Eastern Ghats'**. These trees have a **slow growth rate**, taking **25 to 40 years to mature**, and they display remarkable resistance to droughts.

### Red Sanders application:

The Red Sanders heartwood is valued for **its wavy grain**. Besides its use in furniture, the **red dye (called 'santalin')** extracted from the wood serves as a colouring agent for textiles, medicine, and food.

### About CITES:

#### CITES Agreement



**Context:** UN in 2013 had marked **March 3 as World Wildlife Day**, coinciding with the establishment of the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** in 1973.

- This year (2023) is **50th anniversary of CITES**

CITES is a **multilateral treaty** to protect endangered plants and animals from the threats of international trade. It was drafted as a result of a **resolution adopted in 1963** (but came into effect in 1975) at a meeting of members of the **International Union for Conservation of Nature**.



**Administered by:**  
UNEP  
HQ: Geneva (Switzerland).

Although CITES is **legally binding** on the Parties - in other words they have to implement the Convention - it does not take the place of **national laws**.

#### Classification of species under CITES

##### Appendix I

Trade permitted only in exceptional circumstances - 3% of all species



(Example: African rhinoceros - threatened with extinction)

##### Appendix II

Trade strictly controlled - 97% of all species



(Example: Orchidaceae - at risk of becoming threatened)

##### Appendix III

Request for assistance in controlling trade of species protected in a specific country



(Example: Chilean toad)

## 12. NATIONAL HEALTH CLAIM EXCHANGE (NHCX)

### Context:

The **National Health Authority (NHA)** and the **Insurance Regulatory and Development Authority of India (IRDAI)** collaborated to operationalize the National Health Claim Exchange (NHCX), a digital health claims platform.

### What is NHCX?

The National Health Claim Exchange (NHCX) is a digital health claims platform that serves as a **gateway for exchanging claims-related information** among various stakeholders in the healthcare and health insurance ecosystem, enhancing efficiency and transparency in health claims processing.

### About NHA:

The National Health Authority (NHA) (formed in 2019) is an **autonomous entity** established under the **Society Registration Act, 1860**, responsible for **implementing AB PM-JAY**. It oversees the design, technological infrastructure, and implementation of the **“National Digital Health Mission”** to create a **National Digital Health Eco-system**. It replaced the National Health Agency and operates as an attached office of the Ministry of Health and Family Welfare.

### About IRDAI:

The Insurance Regulatory and Development Authority of India (est. 1999; HQ: Hyderabad) is a **statutory body** under the jurisdiction of the **Ministry of Finance** and is tasked with **regulating and licensing** the **insurance and re-insurance** industries in India

## 13. ELECTRIC BATTERY

### Context:

The electric battery serves as a **portable source of electric power**, playing a fundamental role in **convenience and sustainability**.

### Invention:

In 1749, **Benjamin Franklin** coined the term **“battery”** while experimenting with electricity. The first real battery was invented by **Alessandro Volta in 1800**. In the early 19th century, **Michael Faraday** worked out why these cells worked the way they did and named their various components (anode, cathode, electrolyte, etc.)

### How do Electric batteries work?

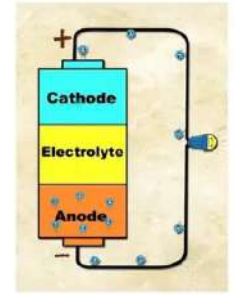
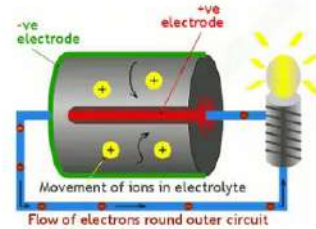
It works by **converting stored chemical energy into electrical energy**.

- Anode (Negatively Charged Electrode):** Oxidation occurs, releasing electrons and creating ions.
- Cathode (Positively Charged Electrode):** Reduction takes place, consuming electrons and accepting ions.
- Electron Flow:** Electrons generated at the anode

flow through an external circuit to the cathode, creating an electric current.

- Salt Bridge (electrolyte):** A salt bridge connects the two half-cells, allowing ion exchange to maintain electrical neutrality.

### How Does a Battery Work?



E4U Electrical 4 U

**Challenges:** Corrosion is a common issue affecting battery performance, and various factors, such as environmental conditions, can contribute to degradation.

### Types of Batteries:

- Lithium-ion (Li-ion):** A rechargeable battery that converts chemical energy to electrical energy during discharge and vice versa during charging.
  - M. Stanley Whittingham, John Goodenough and Akira Yoshino** were awarded the **2019 Nobel Prize in Chemistry** for their contributions to the development of lithium-ion batteries.
- Fuel Cells:** A source of electric power, like hydrogen fuel cells, where hydrogen is separated into protons and electrons at the anode, creating electricity and water at the cathode.
- Lead Acid Batteries:** Used in automotive starting batteries, backup power systems, UPS
- Nickel-Cadmium (NiCd) Batteries:** Used in Portable power tools, medical equipment, and emergency lighting.

Lithium-ion battery

INSIGHTSIAS

LITHIUM-ION BATTERY

**DISCHARGE**

**CHARGE**

Charging and Discharge Cycle

A Lithium-ion or Li-ion battery is a type of rechargeable battery which uses the reversible reduction of lithium ions to store energy.

Emerging Potential of Lithium Ion Battery

Lithium Ion Battery Applications

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## 14. GREEN ALGA PICOCYSTIS SALINARUM

### Context:

A young researcher in Rajasthan has unravelled the **molecular mechanisms behind the resilience of the green alga *Picocystis Salinarum*** in extreme conditions of saline-alkaline soda lakes.

### What is Alga?

Alga is a **simple, photosynthetic organism, often aquatic**, ranging from microscopic to large seaweeds.

### What is Picocystis Salinarum?

Picocystis salinarum is a globally widespread **extremophile** (able to withstand extreme conditions), picoplanktonic green algae that inhabits **saline lakes**. It's one of the **smallest green algae** and has been recorded on four continents. It was spotted for the **first time in India only in the Sambhar Lake**.

### Significance:

This discovery positions *P. salinarum* as a potential candidate for biotechnological applications, including **carbon capture and biomass production**. The research also helps us in our **understanding of molecular adaptations in extremophiles** for sustainable biotechnological processes.

## 15. KILL SWITCH

### Context:

Scientists from the **UC Davis Comprehensive Cancer Center** in, California, have made a **significant breakthrough** by discovering a **'kill switch' that triggers the death of cancer cells**.

- The **researchers identified a protein on a receptor**, known as **CD95 receptors or Fas**, which can be designed to induce **self-destruction in cancer cells when activated**.
- The discovery is **part of CAR T-cell therapy**, involving the **collection of T cells from the patient's blood, genetic modification in a lab to produce chimeric antigen receptors (CARs)**, and then injecting the modified cells back into the patient's body.
- The therapy has shown **promising efficacy against liquid cancers like leukaemia** but has demonstrated **limited success against solid tumours such as breast, lung, and bowel cancer**.

Despite this limitation, the research team is hopeful that the therapy can evolve to target solid cancers in the future. The **identified epitope on CD95 receptors offers a potential therapeutic path to target Fas in tumours**.

## 16. GHG BULLETIN

### Context:

The **World Meteorological Organisation (WMO)** reported that **greenhouse gas (GHG) concentrations in the Earth's atmosphere reached record levels in 2022, primarily driven by the use of fossil fuels**.

### Key Findings:

- **Carbon dioxide (CO2) levels**, the most significant GHG, reached **417.9 parts per million, 50% higher than pre-industrial levels**.
- The last time CO2 levels were at this point was **3-5 million years ago**.
- **Methane and nitrous oxide concentrations** also rose in 2022, with **nitrous oxide experiencing the highest year-on-year increase**.

The **WMO emphasized the urgent need to reduce fossil fuel consumption** and highlighted the **importance of improving GHG monitoring** to better understand and address environmental challenges.

Greenhouse gases (GHGs) are **gases in the Earth's atmosphere that trap heat**. They contribute to the **greenhouse effect**, which is essential for maintaining the planet's temperature within a range suitable for life.

However, **human activities, particularly the burning of fossil fuels and deforestation**, have significantly increased the concentrations of these gases, leading to an **enhanced greenhouse effect and global warming**. The major greenhouse gases include:

- **Carbon Dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O), Water Vapor, Ozone (O3), Chlorofluorocarbons (CFCs)**

## 17. IGLA-S

### Context:

**Russia** has announced its plan to supply the **Igla-S man-portable air defence missile system** to the **Indian armed forces**.

### About Igla-S:

The Igla-S is a **man-portable air defence missile system (MANPADS)** developed by Russia. MANPADS are **shoulder-launched surface-to-air missiles designed to be operated by an individual soldier**. The **Igla-S is an upgraded variant of the earlier Igla system**

Feature	Description
<b>Interception Range</b>	The Igla-S has an improved interception range of up to 6 kilometres.
<b>Portability</b>	As a man-portable system, it is <b>designed to be carried and operated by a single soldier or a small crew</b> , providing flexibility on the battlefield.

<b>Guidance System</b>	The missile is equipped with an <b>infrared homing guidance system</b> , allowing it to track and target enemy aircraft based on their heat signature.
<b>Counter-measures</b>	The Igl-S is designed to be <b>resistant to various countermeasures employed by aircraft</b> , enhancing its effectiveness in the presence of <b>electronic jamming or other defensive measures</b> .

## 18. MICROFINANCE IN INDIA

### Context:

The **Microfinance Industry Network (MFIN)** launched the third edition of "Micro Matters: Macro View – India Microfinance Review FY 2022-23" in Mumbai.

### Key findings of the review:

- The microfinance sector added **87 lakh new women clients**, reaching approx. 6 crore low-income women clients with outstanding credit of over 3 lakh crores across 729 districts.
- MFIs followed by banks are the **largest provider of micro-credit** amongst other regulated entities.
- MFIs' gross **Non-Performing Assets (NPA)** decreased from approx. **5.6% (FY22) to 2.7% (FY23)**.

### About MFIs in India:

About Microfinance in India	
<b>Status</b>	Microfinance contributes about <b>130 lakh jobs and 2% of the Gross Value Added (GVA)</b> , according to a National Council of Applied Economic Research (NCAER) study.
<b>Definition</b>	RBI defines microfinance <b>as collateral-free loans</b> to households with <b>annual income up to Rs.3 lakh</b> .

<b>Contributions of MFI</b>	<p><b>Boosting Entrepreneurship:</b> MFIs provide small loans, fostering entrepreneurship and small business development for economic growth and job creation.</p> <p><b>Financial Inclusion:</b> MFIs enhance financial inclusion, providing credit and financial services to those excluded from traditional banking, enabling savings, education, healthcare investment, and entrepreneurship.</p> <p><b>Poverty Reduction:</b> Microfinance aids poverty reduction by offering small loans to the poor for income-generating activities, improving their standard of living.</p> <p><b>Empowering Women:</b> Microfinance plays a crucial role in empowering women by providing financial resources, fostering economic independence, and improving social standing.</p> <p><b>Supporting Rural Development:</b> MFIs support rural development by providing small loans to farmers and entrepreneurs, enhancing agricultural productivity and contributing to economic development in rural areas.</p>
<b>Challenges with Microfinance in India</b>	<b>Over-indebtedness, high-interest rates, Lack of Financial Literacy</b> , Operating in remote areas with inadequate infrastructure, Political Interference, and Lack of Regulation
<b>Government Initiatives</b>	<b>SHG-Bank Linkage Program;</b> E-shakti Programme (to digitize the accounts of various SHGs); <b>PM SVANidhi</b> (micro-credit loan to street vendors)
<b>Way Forward</b>	<b>Strengthening Regulatory Framework,</b> Promoting Financial Literacy, Promoting Partnerships, Ensuring Social Impact

### About MFIN (est. 2009)

It is an Association of Non-Bank Finance Company Micro Finance Institutions (NBFC-MFIs). It is an **umbrella body of Micro Finance Institutions (MFIs)** in India.

## 19. FRACTALS

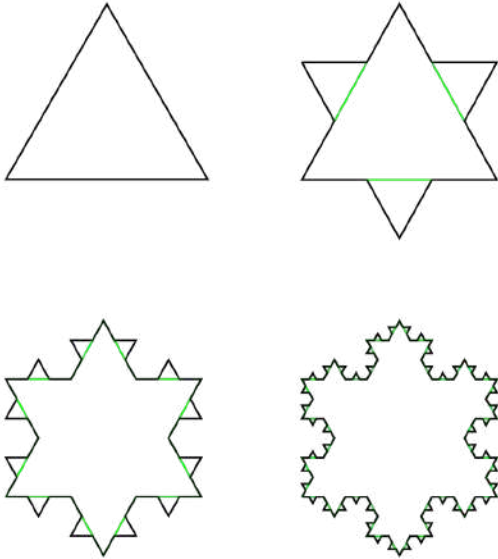
### Context:

Physicists are using fractal geometry to study quantum systems, providing a unique perspective on the uncertainties of quantum physics.

### What are Fractals?

Fractals are **geometric shapes** that exhibit self-similarity at different scales.

**Example 1: The Koch snowflake**, starting as an equilateral triangle, evolves with self-similar patterns at each iteration.



**Applications:**

- **Overcome measurement limitations:** Examples include the magnetic properties of **neodymium nickel oxide** and the fractal distribution of **electron density in graphene**.
- Fractals are applied in **data compression, antenna design, and studying patterns in galaxies**
- They provide a unique tool to understand **complex systems and patterns in nature**.

## 20. GREENWASHING

**Context:**

The **Advertising Standards Council of India (ASCI)**, the advertising industry’s self-regulatory body, has introduced a **9-point draft of guidelines to combat “greenwashing”** by companies.

**What is Greenwashing?**

**About the Guidelines:**

1. Environmental claims like **“environment-friendly,” “eco-friendly,” “sustainable,”** and “planet-friendly” must have **strong evidence** to support them.
2. Such claims should **consider the full life cycle of the product or service**.
3. **Certifications and Seals of Approval** should specify the evaluated attributes.
4. Assertions about a product being **compostable, biodegradable, recyclable, non-toxic, or free of certain elements** should be grounded in reliable scientific evidence.

**Aim of the Guidelines:**

The proposed guidelines aim to **promote transparency and authenticity in advertising** to help consumers make informed decisions. The public consultation on these guidelines is open until December 31.

**Initiatives to check Greenwashing:**

1. **International Sustainability Standards Board (ISSB)**, will set uniform sustainability and climate standards for companies to follow worldwide from 2024.
2. SEBI’s Business Responsibility and Sustainability Reporting (BRSR) norms
3. SEBI issued dos and don’ts relating to green bonds.
4. RBI announced to join **Global Financial Innovation Network** (GFIN)’s Greenwashing TechSprint.

**About ASCI:**

The Advertising Standards Council of **India (est. 1985; HQ: Mumbai)** is a **voluntary self-regulatory organization** of the advertising industry in India. ASCI is registered as a non-profit company under section **25 of the Company Act**.

## MAPPING

### 1. BEN GURION CANAL PROJECT

**Context:**

The current **Israel-Palestine crisis** in the Middle East has refocused attention on the **ambitious Ben Gurion Canal Project**.

**What Ben Gurion Canal Project?**

The Ben Gurion Canal Project is a **theoretical proposal to cut a canal through Israel’s Negev Desert**, creating an **alternative route to the Suez Canal**. Envisioned in the 1960s, it aimed to **challenge Egypt’s monopoly** on the shortest trade route between Europe and Asia.

However, the project faces immense challenges, including **logistical complexities, high costs, a longer route, and security concerns** in a region marked by ongoing military threats.

### What is the Suez Canal?

It is an **artificial sea-level waterway** in Egypt (completed in 1859), connecting the Mediterranean Sea to the Red Sea through the **Isthmus of Suez** and dividing Africa and Asia. The 193 km long canal is a key trade route between Europe and Asia.



### Who was Ben Gurion?

**David Ben-Gurion (1886–1973)** was Israel's **founder father** and its first Prime Minister. He played a pivotal role in establishing the state of Israel in 1948

## 2. SEISMIC ACTIVITY IN ICELAND

#### Context:

**Iceland** is currently experiencing a **significant increase in seismic activity**, with around 1,400 earthquakes measured in the past 24 hours and over 24,000 recorded in the **Reykjanes Peninsula** since late October.

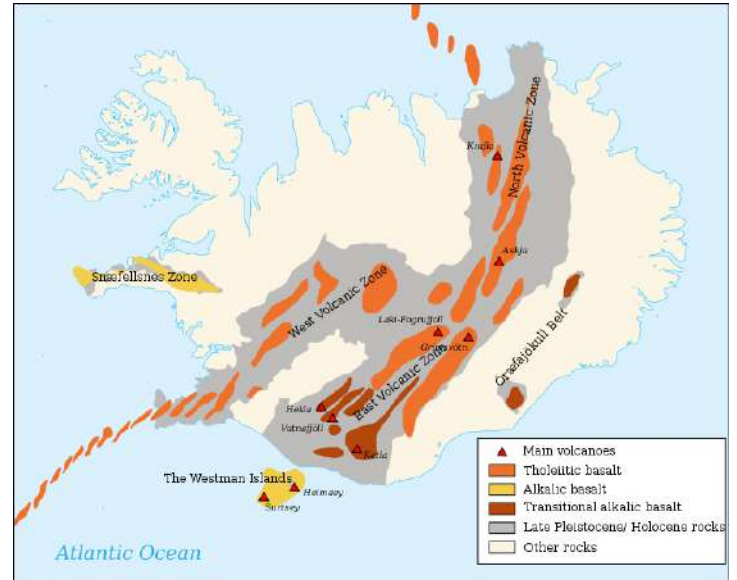
#### What are the reasons for the seismic activity in Iceland?

The seismic activity in Iceland is primarily due to its **location on the Mid-Atlantic Ridge**, where the **Eurasian and North American tectonic plates** meet. This geological setting makes Iceland prone to **frequent earthquakes**. The recent **earthquake swarm** is believed to be a result of movement and pressure changes associated with **magma activity** beneath the Earth's surface, indicating a potential **precursor to a volcanic eruption**.

- Fagradalsfjall** lies about 40 km to the southwest of Reykjavik and is the **"world's newest baby volcano."** It had been dormant for eight centuries before erupting in 2021, 2022 and 2023.

### What is the Mid-Atlantic Ridge?

The **Mid-Atlantic Ridge is a mid-ocean ridge** (a divergent or constructive plate boundary) located along the floor of the Atlantic Ocean and part of the longest mountain range in the world. In the North Atlantic, the ridge separates the North American from the Eurasian Plate and the African Plate, north and south of the Azores Triple Junction.



## 3. CHAR DHAM HIGHWAY PROJECT (UTTARKASHI DISTRICT, UTTARAKHAND)

**Char Dham Highway Project**

**Context:** Silkyara tunnel (between Silkyara and Dandalgaon) tunnel collapsed in Uttarkashi district, Uttarakhand, has trapped 40 laborers working for the Char Dham Project.

Aspects	Details
<b>About Char Dham National Highway</b>	Char Dham National Highway (under the Ministry of Road Transport and Highways) is an <b>under-construction two-lane express National Highway</b> in the Indian state of Uttarakhand.
<b>Important dates:</b>	Construction <b>started in 2016</b> and currently (2023), 75% of the project is complete
<b>Length</b>	It spans <b>825 km with a minimum width of 10 meters</b> and is part of the Char Dham Pariyojana.
<b>Connectivity</b>	The highway aims to connect the four holy places in Uttarakhand: <b>Badrinath, Kedarnath, Gangotri, and Yamunotri</b> . It <b>Complements Char Dham Railway</b>
<b>Connects</b>	The highway is set to link the <b>Delhi–Dehradun Expressway</b> in the south to India-China Border Roads in the north.
<b>Major Cities Connected</b>	Major cities along the route include Rishikesh, Dharasu, Yamunotri, Gangotri, Rudraprayag, Gaurikund, Kedarnath, Joshimath, Badrinath, and Mana, with the <b>northern end reaching Mana</b> and the <b>southern end starting from Rishikesh</b> .
<b>Implementing Agency</b>	<b>PWD</b> (Public Works Department), <b>BRO</b> (Border Roads Organisation), and <b>NHIDCL</b> (National Highway & Infrastructure Development Corporation Limited)
<b>Benefits</b>	NHIDCL is a fully owned company under Road Transport & Highways ministry. <b>Decrease the overall time (30% to 40%) of travel and fuel cost</b> ; Helps the army in the security of the Indian border along with China; Boost the economy
<b>Concerns Raised</b>	Experts call for accountability, emphasizing the need to <b>scrutinize projects based on Environmental factors</b> and <b>take geological and geotechnical investigations</b> . The use of explosives during construction is damaging the fragile landscape and making it <b>susceptible to landslides, flash-flood</b> . <small>To know more Visit Insights IAS Daily CA</small>
<b>Supreme Court</b>	SC, while allowing the widening of the road, has advocated for a balance between <b>Environmental Fragility vs National Security &amp; Economic Centrality</b>

## 4. MOUNT ETNA

**Context:**

Mount Etna, **Europe’s most active volcano**, has been erupting for over a year, causing disruptions such as flight cancellations and vehicle bans due to ash accumulation.

**About Mount Etna**

It is an **active stratovolcano** on the east coast of Sicily, Italy, in the Metropolitan City of Catania and the **highest Mediterranean island mountain**. It is located above the **convergent plate margin between the African Plate and the Eurasian Plate**. Mount Etna, with a recorded history of volcanic activity **dating back to 1500 B.C.**, has erupted over 200 times.



**List of some of the most active volcanoes on Earth:**

Volcano	Location	Notable Characteristics
Mount Etna	Italy	Highest Mediterranean Island Mountain, continuous eruptions
<a href="#">Kilauea</a>	Hawaii, USA	Long-term eruptions, ongoing since 1983
<a href="#">Mauna Loa</a>	Hawaii, USA	One of the largest shield volcanoes, last erupted in 1984
Merapi	Indonesia	Frequent and highly explosive eruptions
<a href="#">Eyjafjalla-jökull</a>	Iceland	Disrupted air travel in 2010 with ash clouds

<b>Fagradalsfjall</b>	Iceland	Ongoing eruptions attracted attention with recent activity
<b>Dukono</b>	Indonesia	Long-term eruption since August 1933
<b>Santa Maria</b>	Guatemala	Erupting since June 1922, one of the most active in Central America
<b>Yasur</b>	Vanuatu	Erupting since about 1270 (± 110 years), ongoing

## 5. SOMALIA

**Context:**

Severe flooding in Somalia, triggered by heavy seasonal downpours exacerbated by **El Niño and the Indian Ocean Dipole**, has been labelled a **once-in-a-century event** by the United Nations.

The heavy seasonal rainfall has been worsened due to the combined impact of two climate phenomena, **El Niño and the Indian Ocean Dipole (IOD)**, as per the UN Office for the Coordination of Humanitarian Affairs (**UNOCHA**).

- **El Niños and a positive IOD** are associated with above-normal rains and flooding in East Africa.

**About Somalia**

It is a country in the **Horn of Africa**. The country is **bordered by Ethiopia** to the west, **Djibouti** to the northwest, the **Gulf of Aden** to the north, the Indian Ocean to the east, and Kenya to the southwest. Somalia has the **longest coastline** on Africa’s mainland.

**Countries called the Horn of Africa: SEED**

- S- Somalia
- E- Ethiopia
- E- Eritrea
- D- Djibouti

