

# Current Affairs

# Quarterly

## REVISION

**JUNE 2025 TO  
AUGUST 2025**



AHMEDABAD

BHOPAL

CHANDIGARH

DELHI

GUWAHATI

HYDERABAD

JAIPUR

JODHPUR

LUCKNOW

PRAYAGRAJ

PUNE

RANCHI

SIKAR











# Vision Publication

**IGNITING PASSION FOR KNOWLEDGE**

In a world where knowledge is the gateway to countless opportunities, having access to the right resources is essential. **Vision IAS** proudly presents Vision Publication, your trusted source for simplified, high-quality, and comprehensive learning materials. Whether you're feeding your curiosity or preparing for competitive exams, Vision Publication equips you with the knowledge and insights to excel.









## Objectives of Vision Publication

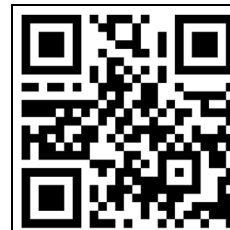
- 
**Empower Learners:** Deliver comprehensive study materials that cover a wide range of subjects, including but not limited to the UPSC exam.
- 
**Foster In-Depth Understanding:** Provide subject-specific books that explore History, Geography, Polity, Economics, Science, and more.
- 
**Stay Current:** Offer up-to-date resources, including current affairs magazines and topic-specific compilations that keep you informed.
- 
**Enhance Exam Preparedness:** Equip readers with exam insights, including trend analysis, expert strategies, and practical tips.
- 
**Support Last-Minute Prep:** Provide quick notes, last-minute guides, and comprehensive revision tools to ensure you're well-prepared.
- 
**Promote Intellectual Expression:** Offer a platform for authors to publish their works, contributing to a diverse and vibrant body of knowledge.

## Who is Vision Publication for?

Designed for lifelong learners, UPSC aspirants, educators, and anyone passionate about intellectual growth and academic excellence.

## Key Elements of Vision Publication

- 
**Comprehensive Study Guides:** Books that cover a broad spectrum of subjects, ensuring thorough exploration and understanding.
- 
**Expertly Crafted Content:** Each publication undergoes meticulous review to maintain the highest standards of quality and accuracy.
- 
**Interactive Learning:** Engaging formats and practical examples that make complex subjects accessible and enjoyable.
- 
**Cutting-Edge Insights:** Latest trends, analyses, and strategies to help you stay ahead, whether in competitive exams or general knowledge pursuits.
- 
**Accessible Knowledge:** Available in print format, our materials are designed to be easily accessible to all learners.
- 
**Author Collaboration:** A platform for aspiring and established authors to publish their works, enriching the learning experience with diverse perspectives.



Scan the QR code to explore our collection and start your journey towards success.

**"Education is the most powerful weapon which you can use to change the world."**

– Nelson Mandela



# Note to Students

**Dear Students,**

In our endeavour to streamline your preparation and revision, here is the next **Quarterly Revision** document.

This curated compilation is designed to reinforce your learning journey and make your revision more structured and effective for the Civil Services Examination.

The Quarterly Revision gathers all the insightful articles from our latest three Monthly Current Affairs Magazines, offering you a comprehensive yet concise resource to revisit pivotal topics.

We understand that aspirants come from diverse backgrounds, manage various professional and personal commitments, and may not always find time to consistently read and revise monthly updates. This document is crafted keeping such aspirants in mind — especially those with a foundational understanding of the syllabus who are seeking a quick yet thorough revision tool.

## Features of the Quarterly Revision Document:



**Consolidated Coverage:** A single document covering three months of Current Affairs, saving time and effort.



**Exam-Focused Content:** Only the most relevant and high-yield topics selected by subject experts.



**Precise and Concise:** Designed for quick revision without compromising on depth and understanding.



**Ideal for Working Aspirants:** Perfect for those juggling jobs, studies, or other commitments.



**Test your learning:** Monitor your learning and identify areas for improvement through MCQs and Mains Practice Questions.

Let this Quarterly Revision be your reliable companion in staying updated and confident throughout your preparation.

***“Stay focused, stay consistent — success is closer than you think.”***

**Warm regards,**  
**Team Current Affairs,**  
**VisionIAS**



# Table of Contents

## 1. POLITY

1.1. 50 YEARS OF EMERGENCY . . . . .	8
1.2. PERSONALITY RIGHTS . . . . .	9
1.3. INTER STATE WATER DISPUTE (ISWD) . . . . .	9
1.4. COST OF POLITICS IN INDIA . . . . .	11
1.5. LOWERING OF AGE FOR VOTING . . . . .	11
1.6. THE CONSTITUTION (ONE HUNDRED AND THIRTIETH AMENDMENT) BILL, 2025 . . . . .	12
1.7. NATIONAL SPORTS GOVERNANCE ACT, 2025 . . . . .	13
1.8. JAN VISHWAS (AMENDMENT OF PROVISIONS) BILL, 2025 . . . . .	14
1.9. THE PROMOTION AND REGULATION OF ONLINE GAMING ACT, 2025 . . . . .	16
1.10. ONLINE CONTENT REGULATION . . . . .	17
1.11. DIGITAL COLONIALISM . . . . .	18
1.12. NATIONAL COOPERATIVE POLICY 2025 . . . . .	19
1.13. PRI FINANCES . . . . .	20
1.14. NEWS IN SHORTS . . . . .	21
1.15. TEST YOUR LEARNING . . . . .	25

## 2. INTERNATIONAL RELATIONS

2.1. FAIR AND REPRESENTATIVE GLOBAL ORDER . . . . .	27
2.2. INDIA-UNITED KINGDOM (UK) COMPREHENSIVE ECONOMIC AND TRADE AGREEMENT (CETA) . . . . .	27
2.3. INDIA-MALDIVES RELATIONS . . . . .	29
2.4. INDIA AND SHANGHAI COOPERATION ORGANIZATION (SCO) . . . . .	29
2.5. CHINA-LED TRILATERAL NEXUS . . . . .	30
2.6. CHINA'S HYDROPOWER PROJECT ON THE BRAHMAPUTRA RIVER . . . . .	31

2.7. INDIA'S STRATEGY IN INDIAN OCEAN . . . . .	32
2.8. ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN) CENTRALITY . . . . .	33
2.9. BRICS RIO DE JANEIRO DECLARATION . . . . .	34
2.10. INDIA LATIN AMERICAN AND CARIBBEAN COUNTRIES TIES . . . . .	35
2.11. INDIA-AFRICA RELATIONS . . . . .	37
2.12. ECONOMIC COMMUNITY OF WEST AFRICAN STATES (ECOWAS) . . . . .	37
2.13. GROUP OF SEVEN (G7) . . . . .	38
2.14. GEELONG TREATY UNDER AUKUS . . . . .	39
2.15. WORLD TRADE ORGANIZATION (WTO) REFORMS . . . . .	40
2.16. GIRMITIYA COMMUNITY . . . . .	41
2.17. ISRAEL-US-IRAN CONFLICT . . . . .	42
2.18. NEWS IN SHORTS . . . . .	43
2.19. TEST YOUR LEARNING . . . . .	51

## 3. ECONOMY

3.1. INTERNATIONALIZATION OF RUPEE . . . . .	53
3.2. FOREIGN DIRECT INVESTMENT (FDI) . . . . .	54
3.3. FISCAL RESPONSIBILITY AND BUDGET MANAGEMENT (FRBM) ACT . . . . .	55
3.4. PUBLIC DEBT IN INDIA . . . . .	55
3.5. ASSET MONETIZATION . . . . .	56
3.6. EMPLOYABILITY AND SKILLING IN INDIA . . . . .	57
3.7. REGIONAL IMBALANCES IN INDIA . . . . .	58
3.8. FINANCIAL INCLUSION IN INDIA . . . . .	58
3.9. RURAL INDIA: THE NEW ENGINE OF INDIA'S CONSUMER MARKET . . . . .	59
3.10. PRODUCT NATION . . . . .	59



3.11. GIG WORKERS . . . . .	60
3.12. THE FUTURE OF WORK . . . . .	60
3.13. DIGITAL INDIA MISSION . . . . .	61
3.14. BLUE ECONOMY . . . . .	61
3.15. MINES AND MINERALS (DEVELOPMENT AND REGULATION) AMENDMENT ACT, 2025 . . . . .	62
3.16. INCOME TAX ACT 2025 . . . . .	63
3.17. INDIAN PORTS ACT, 2025 . . . . .	63
3.18. AVIATION SAFETY . . . . .	64
3.19. COMPETITION COMMISSION OF INDIA . . . . .	65
3.20. PRIME MINISTER DHAN-DHAANYA KRISHI YOJANA (PMDDKY) . . . . .	66
3.21. COMPETITION COMMISSION OF INDIA . . . . .	66
3.22. ATAL MISSION FOR REJUVENATION AND URBAN TRANSFORMATION (AMRUT) . . . . .	67
3.23. RESEARCH DEVELOPMENT AND INNOVATION (RDI) SCHEME . . . . .	68
3.24. FINANCING FOR SUSTAINABLE DEVELOPMENT . . .	69
3.25. ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) . . . . .	70
3.26. 100TH BIRTH ANNIVERSARY OF MS SWAMINATHAN	71
3.27. QUICK COMMERCE IN INDIA . . . . .	71
3.28. NEWS IN SHORTS . . . . .	72
3.29. TEST YOUR LEARNING . . . . .	78

## 4. SECURITY

4.1. SUDARSHAN CHAKRA MISSION . . . . .	80
4.2. FIFTH-GENERATION FIGHTER JET AMCA . . . . .	80
4.3. QUANTUM CYBER READINESS . . . . .	81
4.4. INCREASED PRIVATE SECTOR SHARE IN DEFENCE PRODUCTION . . . . .	82
4.5. HIGH-POWERED DEMOGRAPHY MISSION . . . . .	83
4.6. NEWS IN SHORTS . . . . .	84

4.7. TEST YOUR LEARNING . . . . .	86
-----------------------------------	----

## 5. ENVIRONMENT

5.1. BHARAT FORECAST SYSTEM . . . . .	88
5.2. E-MOBILITY . . . . .	88
5.3. ETHANOL BLENDING . . . . .	89
5.4. AGROFORESTRY . . . . .	90
5.5. CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES) . . . . .	91
5.6. INDIA'S RESOLUTION ON WISE-USE OF WETLANDS .	92
5.7. INTERNATIONAL CONFERENCE ON DISASTER RESILIENT INFRASTRUCTURE 2025 . . . . .	92
5.8. CROWD DISASTER MANAGEMENT . . . . .	95
5.9. URBAN RESILIENCE . . . . .	96
5.10. MARITIME DISASTERS . . . . .	97
5.11. CLOUDBURSTS IN HIMALAYAN REGIONS . . . . .	98
5.12. CSS-INTEGRATED DEVELOPMENT OF WILDLIFE HABITATS SCHEME (CSS-IDWH) . . . . .	98
5.13. PACIFIC RING OF FIRE . . . . .	99
5.14. NEWS IN SHORTS . . . . .	100
5.15. TEST YOUR LEARNING . . . . .	110

## 6. SOCIAL ISSUES

6.1. MANOSPHERE . . . . .	112
6.2. GLOBAL GENDER GAP 2025 . . . . .	112
6.3. WOMEN IN ARMED FORCE . . . . .	113
6.4. URBAN MIGRATION . . . . .	114
6.5. ADI KARMAYOGI ABHIYAN . . . . .	115
6.6. YEARS OF NATIONAL EDUCATION POLICY (NEP) . . .	116
6.7. IMPROVEMENT IN QS WORLD UNIVERSITY RANKINGS . . . . .	118
6.8. RISING SUICIDES AMONG STUDENTS . . . . .	118



6.9. SOCIAL ISOLATION . . . . .	119
6.10. CULTURAL APPROPRIATION . . . . .	120
6.11. TIER-2 INFLUENCERS REDEFINING CULTURAL CAPITAL IN DIGITAL INDIA . . . . .	121
6.12. GLOBAL TOBACCO EPIDEMIC 2025 . . . . .	121
6.13. NEWS IN SHORTS . . . . .	123
6.14. TEST YOUR LEARNING . . . . .	127

## 7. SCIENCE & TECHNOLOGY

7.1. SPACE PROGRAMME OF INDIA . . . . .	129
7.2. INDIA'S FIRST COMMERCIAL EARTH OBSERVATION (EO) SATELLITE CONSTELLATION . . . . .	130
7.3. NISAR (NASA-ISRO SYNTHETIC APERTURE RADAR) SATELLITE . . . . .	130
7.4. AXIOM-4 MISSION . . . . .	131
7.5. BLACK HOLE MERGER . . . . .	132
7.6. NEWS IN SHORTS . . . . .	133
7.7. TEST YOUR LEARNING . . . . .	139

## 8. CULTURE

8.1. GOSWAMI TULSIDAS . . . . .	142
8.2. CHOLA GANGAM LAKE . . . . .	142

8.3. INTERNATIONAL CHESS FEDERATION (FIDE) CHESS CHAMPIONSHIP . . . . .	144
8.4. COMMONWEALTH GAMES . . . . .	144
8.5. 100 YEARS OF KAKORI TRAIN ACTION . . . . .	145
8.6. MARATHA MILITARY LANDSCAPE . . . . .	145
8.7. GALLANTRY AWARDS . . . . .	147
8.8. INS KAUNDINYA AND TANKAI METHOD . . . . .	147
8.9. NEWS IN SHORTS . . . . .	148
8.10. TEST YOUR LEARNING . . . . .	151

## 9. ETHICS

9.1. TRUST IN PUBLIC INSTITUTIONS . . . . .	153
9.2. ETHICS OF STRAY DOG MANAGEMENT . . . . .	154
9.3. CELEBRITIES AND ENDORSEMENT OF PRODUCTS . . . . .	155
9.4. VALUES OF MAHATMA GANDHI AND SREE NARAYAN GURU . . . . .	155
9.5. INTEGRAL HUMANISM (EKATM MANAVVAD) . . . . .	156
9.6. TEST YOUR LEARNING . . . . .	157

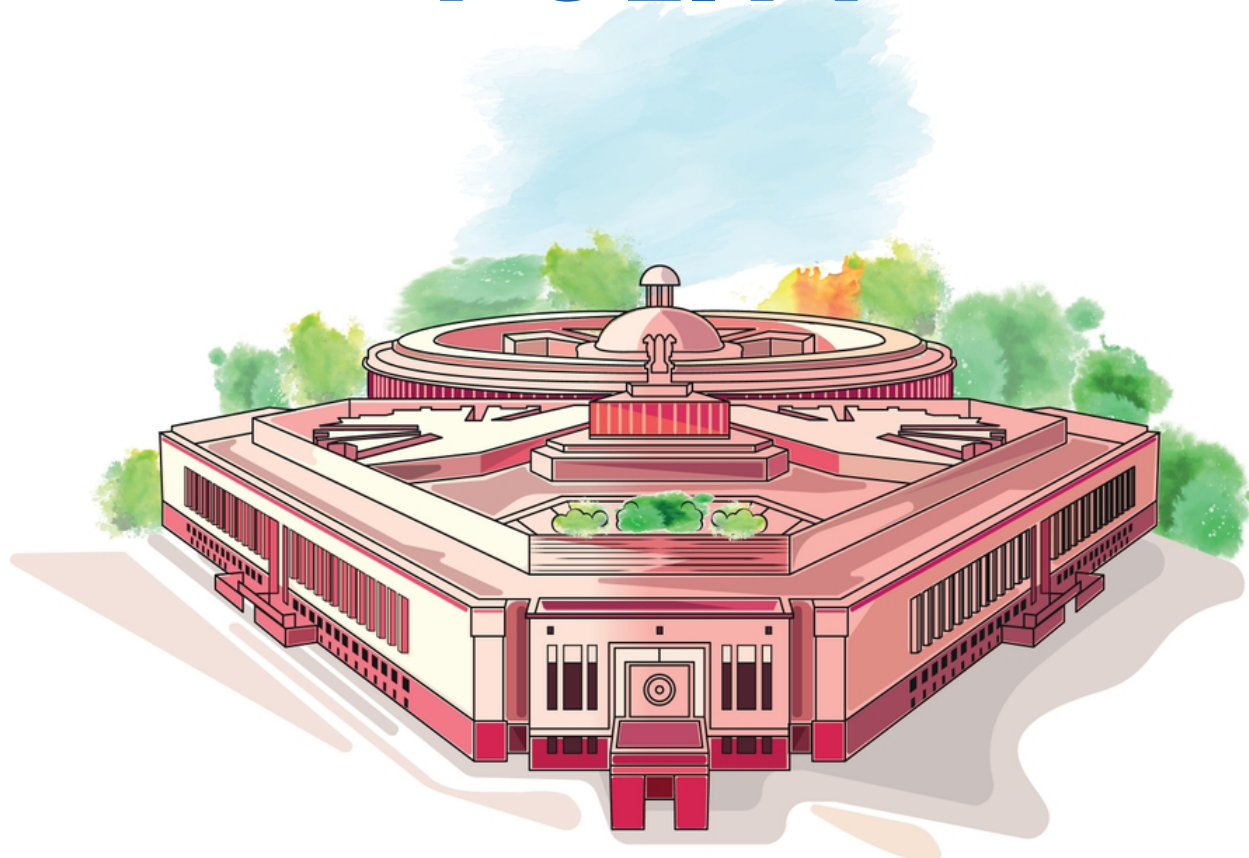
## 10. GOVERNMENT SCHEMES

10.1. TEST YOUR LEARNING . . . . .	160
------------------------------------	-----

## 11. ANSWER KEY



# POLITY



## Table of Content

1.1. 50 YEARS OF EMERGENCY . . . . .	8	1.9. THE PROMOTION AND REGULATION OF ONLINE GAMING ACT, 2025 . . . . .	16
1.2. PERSONALITY RIGHTS . . . . .	9	1.10. ONLINE CONTENT REGULATION . . . . .	17
1.3. INTER STATE WATER DISPUTE (ISWD) . . . . .	9	1.11. DIGITAL COLONIALISM . . . . .	18
1.4. COST OF POLITICS IN INDIA . . . . .	11	1.12. NATIONAL COOPERATIVE POLICY 2025 . . . . .	19
1.5. LOWERING OF AGE FOR VOTING . . . . .	11	1.13. PRI FINANCES . . . . .	20
1.6. THE CONSTITUTION (ONE HUNDRED AND THIRTIETH AMENDMENT) BILL, 2025 . . . . .	12	1.14. NEWS IN SHORTS . . . . .	21
1.7. NATIONAL SPORTS GOVERNANCE ACT, 2025 . . . . .	13	1.15. TEST YOUR LEARNING . . . . .	25
1.8. JAN VISHWAS (AMENDMENT OF PROVISIONS) BILL, 2025 . . . . .	14		

# 1.1. 50 YEARS OF EMERGENCY

## Why in the News?

2025 marked **50 years of** imposition of the **National Emergency**, declared on June 25, 1975, and lasting until March 21, 1977.

## Why Emergency in 1975 was imposed?

- **Social Unrest:** Large-scale protests, strikes, and demonstrations, notably **JP Movement led by Jayaprakash Narayan**
- **Economic crises** post 1971 war.
- **Political Factors:** Allahabad High Court had invalidated Indira Gandhi's election.

## Major Constitutional Amendments during Emergency:

- **38<sup>th</sup> Amendment (1975):** Barred judicial review of Emergency declaration by making **President's satisfaction to be final**.
- **39<sup>th</sup> Amendment (1975):** Changes in method of deciding election disputes of President, Vice President, Prime Minister and Speaker.
  - ➔ To be decided by such authority as may be **determined by Parliament**.
- **42<sup>nd</sup> Amendment (1976):**
  - ➔ Gave primacy to **Directive Principles over Fundamental Rights** under article 31C.
  - ➔ **Curtailment of powers of Supreme Court and High Court** by various measures, like
    - ◊ **Article 32A** inserted to deny SC power to consider constitutional validity of State laws (**omitted by 43<sup>rd</sup> amendment act**)
    - ◊ Deny HC power to **check constitutional validity of Central laws** (Article 131A & 226A).
  - ➔ Extend Lok Sabha term from **5 to 6 yr**.

## Post-Emergency Reforms

- **Shah Commission 1977:** To probe abuses like sterilisations, government employees forcibly retired etc.
- **44<sup>th</sup> Amendment Act (1978):**
  - ➔ **Changes under Article 352:**
    - ◊ Grounded Emergency on "armed rebellion" instead of "internal disturbance" to curb misuse.
    - ◊ Made Union Cabinet's written advice to President compulsory.
    - ◊ Mandated special majority Parliamentary approval within one month.
  - ➔ **Fundamental Rights:** Articles 20 and 21 remain enforceable during Emergency under Article 359.
    - ◊ Right to Property removed from Fundamental Rights; made a constitutional right under Article 300A.
  - ➔ **Article 257A removed:** Centre's power to deploy forces in states.
  - ➔ **Term of Lok Sabha:** Back to 5 years from 6 years.
  - ➔ **Restored judicial power to review** President and Vice-President elections.

## Conclusion

Emergency reminds us that power can suppress rights. Vigilant democratic forces must always protect constitutional safeguards and civil liberties.

### About National Emergency (Article 352)

- **Grounds:** War, external aggression, or armed rebellion.
- **Proclamation:** Declared by President on written advice of Union Cabinet.
- **Approval:** Within one month by both Houses.
- **Majority:** Special Majority required in both Houses.
- **Duration:** Six months, renewable.
- **Revocation:** By President or Lok Sabha resolution.

### Effect of Proclamation of National Emergency

- **On Centre-State Relations:**
  - ➔ Centre can direct States on any subject.

- ➔ Parliament can legislate on State List.
- ➔ Revenue distribution may be altered by President.
- **On Legislature:** Lok Sabha/State Assembly term extendable by one year, limited to six months post-Emergency.
- **On Fundamental Rights:**
  - ➔ Article 19 suspended only during war/external aggression (Art. 358).
  - ➔ Other rights (except 20, 21) suspended by President's Order (Art. 359).

## 1.2. PERSONALITY RIGHTS

### Why in the news?

Delhi high court protected personality rights of Sadhguru Jaggi Vasudev from being misused via AI by websites and platforms.

### About Personality Rights

- **Personality rights** refer to the right of an individual to control the unauthorized use of their personal attributes like **Name, Image, voice, Likeness and Distinctive expressions or traits.** (Include **both commercial and non-commercial** aspects)
- Personality rights are **not expressly mentioned in any statute in India.**
- **Components of Personality Rights:**
  - ➔ **Right to Publicity:** Protects image from commercial use without consent; partially covered by Trademark and Copyright Acts.
  - ➔ **Right to Privacy:** Prevents unauthorized public representation; upheld under Article 21 and Puttaswamy judgment.
- **Posthumous Personality Rights in India:** There is no specific statutory recognition.
  - ➔ However, **Emblems Act, 1950** prohibits commercial use of images of Mahatma Gandhi and Prime Minister.
  - ➔ **Deepa Jayakumar v. AL Vijay (2019) Judgment:** Personality right, reputation or privacy comes to end after lifetime.



### Important Judicial pronouncements on Personality rights in India

- **Arun Jaitley vs Network Solutions Private Limited and Ors case, 2011 (Delhi HC):** Popularity or fame of an individual will be no different on the internet than in reality.
- **Rajinikanth v. Varsha Productions (Madras HC, 2015):** Fame remains same online and offline.

### Conclusion

A comprehensive legal framework and empowerment of government agencies to actively monitor and block AI-generated impersonation is need of the hour.

## 1.3. INTER STATE WATER DISPUTE (ISWD)

### Why in the News?

**The Ravi-Beas Waters Tribunal (1986)** got a **1-year extension to settle sharing between Punjab, Haryana, and Rajasthan.**

### More in the News

- Centre to form a **technical committee on Polavaram Banakacherla Link Project** and **Telangana-Andhra water issues.**
- Odisha & Chhattisgarh has agreed to **resolve the Mahanadi dispute amicably.**
- Inter-State disputes trace back to colonial era, e.g., **Cauvery conflict between Madras Presidency and Mysore.**



## Reasons for ISWD

- **Asymmetric Access:**
  - ➔ **Geography:** Upper riparian states enjoy advantage.
  - ➔ **State Reorganization:** Boundaries drawn without river-basin focus.
- **Increasing Demand:** Growth in population, farming, urbanisation, economy.
- **Development Projects:** Dams and projects trigger disputes (e.g., Narmada, Cauvery).
- **Fragmented Governance:**
  - ➔ **Union:** Weak structures for dispute resolution.
  - ➔ **States:** Conflicting strategies, narrow approach.
  - ➔ **Unscientific:** No basin-based management.
  - ➔ **Data Gaps:** Non-uniform collection of river flow/volume data.
- **Legal & Constitutional Framework**
  - ➔ **262(1):** Parliament can provide laws for dispute adjudication.
  - ➔ **262(2):** Courts barred from jurisdiction if Parliament so provides.
  - ➔ **Laws under Article 262:**
    - ◊ **River Boards Act, 1956:** Union may set up boards to regulate inter-state rivers with States.
    - ◊ **Inter-State River Water Disputes Act, 1956:** Union may establish tribunal on state request.
  - ➔ **Seventh Schedule:**
    - ◊ **Union List (Entry 56):** Regulation of inter-state rivers.
    - ◊ **State List (Entry 17):** Water use, irrigation, etc., subject to Entry 56.

## Challenges in resolving ISWD

- **Delays:**
  - ➔ **Tribunal Formation:** e.g., Cauvery Tribunal set up in 1990 after decades.
  - ➔ **Award Delivery:** Narmada – 9 yrs, Krishna – 4 yrs, Godavari – 10 yrs.
  - ➔ **Notification/Enforcement:** Delays in Gazette publication (Krishna – 3 yrs, Godavari – 1 yr) create uncertainty.
  - ➔ **ISRWD Act, 1956:** Tribunal award published is equal to SC decree.
- **Politicization:** Disputes handled politically, ignoring social-environmental aspects.
- **Lack of Participation:** Local communities, states, and stakeholders often excluded.
- **Supreme Court Intervention:** Though it cannot adjudicate, SC interprets tribunal awards, causing delay (e.g., Cauvery 2007, final SC verdict later came with modifications).

## Other measures taken to resolve ISWD

- **ISRWD (Amendment) Bill, 2019**
  - ➔ Create **Disputes Resolution Committee**.
  - ➔ **Establish single tribunal** with multiple benches.
  - ➔ **Time-bound awards** and central river basin databank.
- **Draft River Basin Management Bill, 2018**
  - ➔ **Objectives:** equity, cooperation, basin-based management.
  - ➔ River Basin **Master Plan & Authority**.
- **National River Linking Project:** **Surplus-to-deficit** water transfers to reduce disputes.

## Way forward

- **Cooperative Federalism:** Union as mediator; NITI Aayog to host Dialogue Forum on ISWDs.
- **Policy Intervention:** Bring ISWDs under Inter-State Council (Art. 263); amend ISRWD Act, 1956 for efficient tribunals.
- **Legislation:** Expedite ISRWD Amendment Bill & RBM Bill consultation.
- **Data System:** National river databank; AI for flow and use tracking.
- **Stakeholder Engagement:** Ensure community role in water planning/management.

## 1.4. COST OF POLITICS IN INDIA

### Why in the news?

**Observer Research Foundation (ORF)** supported by the Westminster Foundation for Democracy (WFD) **conducted a case study on India's "Cost of Politics" analyzing spending by electoral candidates.**

### Major Findings of the Study

- **Campaign Costs:** Lok Sabha candidates spend ₹5–10 crore, higher in rich/competitive states (TN, Telangana, AP, Maharashtra).
- **Rising Routine Expenditure:** Events, constituent support, party activities.
- **Social Media spending:** Funds for experts, influencers, ads; cheaper than rallies/logistics.
- **Vote Buying:** Cash handouts surged, pressuring even unwilling candidates.
- **Cost Drivers of politics:** Outreach, logistics, media, patronage, network upkeep.
- **Funding Sources:**
  - ➔ **Primary:** Personal wealth, family/friends.
  - ➔ **Other:** Loans, assets, crowdfunding, business groups.
  - ➔ Parties **expect self-funding thus favours** wealthy/dynastic, excludes marginalized.

### Implications of high costs of elections

- **Implications for Governance**
  - ➔ **Business–Politics Nexus:** Corporate financiers influence policies (e.g., tax cuts), **worsening inequality.**
  - ➔ **Fundraising Priority:** Leaders focus on raising/recovering funds over governance.
  - ➔ **Corruption Risk:** Black money dominance fuels electoral corruption.
    - ◊ India ranked 96 in TI's 2024 Corruption Index.
- **Impact on Democratic Integrity**
  - ➔ **Erosion of Trust:** Poor transparency lowers voter faith, **reduces participation.**
  - ➔ **Power Capture:** Big parties dominate funds, **enabling vote buying, media reach; small/regional parties lose competitiveness.**
  - ➔ **Barrier for Underprivileged:** High costs prevent women, youth, **and non-elite from contesting.**

### Way Forward

- **Spending Limits:** Strengthen ECI oversight, judicial support; enforce caps (e.g., UK model).
- **Constitutional Status:** Bring political parties under formal regulation.
- **State Funding by Vote Share:** Reduce corporate influence, aid smaller parties (supported by multiple commissions).
- **Voter Sensitisation:** Awareness drives by ECI, media, civil society to limit money power.
- **Real-time Donation Disclosure:** Increase transparency (e.g., U.S. model).

### Conclusion

Indian election finance marked by **high costs, concentrated resources, and black money, threatens democracy and equality.** Urgent reforms and stricter corporate donation laws are essential.

## 1.5. LOWERING OF AGE FOR VOTING

### Why in the News?

Globally, several countries, including Germany, Austria, Malta, Estonia, Argentina, Nicaragua, have lowered their voting age from 18 to 16 years.

### More in the News

- **United Kingdom:** Announced plan to reduce voting age **from 18 to 16.**
- **India:** A **Constitution Amendment Bill 2020** proposed reducing voting age from **18 to 17 under Article 326.**
  - ➔ It was a **private member bill.**

## Constitutional provisions related to voting age in India (Art 326)

- **Grants universal suffrage** to citizens aged 18 and above.
- Voting age lowered from **21 to 18 by 61st Amendment 1988**.
- Right to vote is **statutory**, changeable by **ordinary law**.

Arguments in favour of Lowering of Age for voting	Arguments in against of Lowering of Age for voting
<ul style="list-style-type: none"> <li>➤ <b>Cognitive Maturity:</b> Many hold 16-year-olds can make independent political choices.</li> <li>➤ <b>Intergenerational Equity:</b> Exclusion of under-18 favours older <b>voters and limits future-oriented policies</b>.</li> <li>➤ <b>Broader Manifestos:</b> Would add focus on education, child rights, gender justice.</li> <li>➤ <b>Youth Engagement:</b> Early voting builds political participation and strengthens democracy.</li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Lack of Maturity:</b> Adolescents <b>may lack knowledge, making them vulnerable</b> to manipulation.</li> <li>➤ <b>Low Turnout:</b> In 2024, less than <b>40% of 18–19-year-olds</b> voted.</li> <li>➤ <b>Age Threshold Clash:</b> May trigger <b>calls to reduce other legal age limits</b>.</li> <li>➤ <b>Logistical Burden:</b> Registering <b>16–17-year-olds</b> adds <b>costs</b> and administrative challenges.</li> </ul>

## Conclusion

Advocacy on **lowering voting age must use evidence** and involve adolescents. Civic education in schools and **continuous voter registration can boost engagement** and widen youth participation.

# 1.6. THE CONSTITUTION (ONE HUNDRED AND THIRTIETH AMENDMENT) BILL, 2025

## Why in the News?

Union Home Minister introduced the **Constitution (130th Amendment) Bill, 2025 in Lok Sabha**.

## More on the News

- Bill provides for **removal of PM, CM or Ministers in Centre, States and Delhi** if held in custody 30 consecutive days for serious offences.
  - ➔ Proposes amendments to **Articles 75, 164, 239AA of the Constitution**.
- Similar provisions extended to Puducherry through the **Government of Union Territories (Amendment) Bill, 2025**.
- **J&K Reorganization (Amendment) Bill, 2025** applies the same to its CM/Ministers, empowering the LG.
- All three Bills referred to **Joint Parliamentary Committee (JPC) for examination**.

## Key provisions of Constitution Amendment Bill, 2025

- **Grounds for Removal:** Union Minister, CM, or State Minister removed if arrested and detained for 30 consecutive days for an offence punishable with 5 or more years imprisonment. Applies to Prime Minister also.
- **Procedure for Removal:**
  - ➔ **Union Ministers (except PM):** President removes Minister on PM's advice by 31st day; if no advice, Minister ceases office automatically.
  - ➔ **State Ministers (except CM):** Governor acts on CM's advice similarly; auto removal if no advice.
  - ➔ **Delhi Ministers (except CM):** President acts on Delhi CM's advice; auto removal applies.
  - ➔ **PM/CMs (Union/State/Delhi):** Must resign by 31st day of custody; else cease office automatically from next day.
- **Reappointment:** Allowed after release from custody.

Arguments in Favor of the Bill	Arguments Against the Bill
<ul style="list-style-type: none"> <li>➤ <b>Constitutional Morality:</b> SC in <b>Manoj Narula</b> said Ministers with serious charges should be avoided.</li> <li>➤ <b>Public Trust:</b> The Bill shows <b>strong action against corruption</b>.</li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Political Misuse:</b> Agencies like <b>ED and CBI</b> may misuse arrest powers.</li> <li>➤ <b>Innocent Until Proven:</b> Removal happens on <b>detention, not conviction</b>. This breaks legal principles.</li> </ul>



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>➤ <b>Good Governance:</b> Stops “<b>governance from jail</b>” and improves accountability.</li> <li>➤ <b>Bridges Legal Gap:</b> Covers period between <b>arrest and conviction</b>.</li> <li>➤ <b>Fairness:</b> Govt employees suspended after <b>48 hrs in custody; Ministers should face same rules</b>.</li> <li>➤ <b>Additional:</b> Promotes <b>fairness in parties</b> and balance against fake arrests.</li> </ul> | <ul style="list-style-type: none"> <li>➤ <b>Inconsistent:</b> MPs <b>lose seat after conviction</b>, Ministers lose office after arrest only.</li> <li>➤ <b>Revolving Door:</b> Ministers may <b>resign and return repeatedly, causing instability</b></li> <li>➤ <b>Politicization:</b> Removal can be <b>misused by PM or CM to target rivals</b>.</li> <li>➤ <b>No Safeguards:</b> No relief for <b>wrongful arrests; misuse of tough laws like UAPA</b> likely. Convictions are few</li> </ul> |
|--|--|

### Existing legal framework and Judgments for disqualification after crimes

- **Representation of the People Act, 1951 (RPA): Section 8(3)** disqualifies legislators upon conviction for crimes with imprisonment of two years or more.
- **Lily Thomas (2013) judgment:** SC struck down **Section 8(4)**, which shielded sitting members from disqualification by filing appeals.
- **Manoj Narula v. Union of India (2014):** Court said no legal bar on Ministers with criminal past but PM should avoid appointing such individuals, especially for serious offenses.
- **PIL of Public Interest Foundation (2018):** Courts can't add disqualification grounds; Parliament should legislate to make parties revoke membership and deny tickets to serious criminals.
- **Election Commission of India (2016):** Recommended amending RPA to bar persons charged with offences punishable by five or more years from contesting elections.

### Way Forward

- **Interim Suspension:** Suspend Ministers during trials, not remove.
- **Party Role:** Parties should not pick candidates with criminal records.
- **Law Commission:** Disqualify on charge framing for offences ≤ 5 years after judicial check.
- **Bail Rule:** Bail should be default except heinous crimes.
- **Fast-track Trials:** Speed up serious cases against Ministers.
- **Independent Review:** E.g. Tribunal to check removals, prevent misuse.

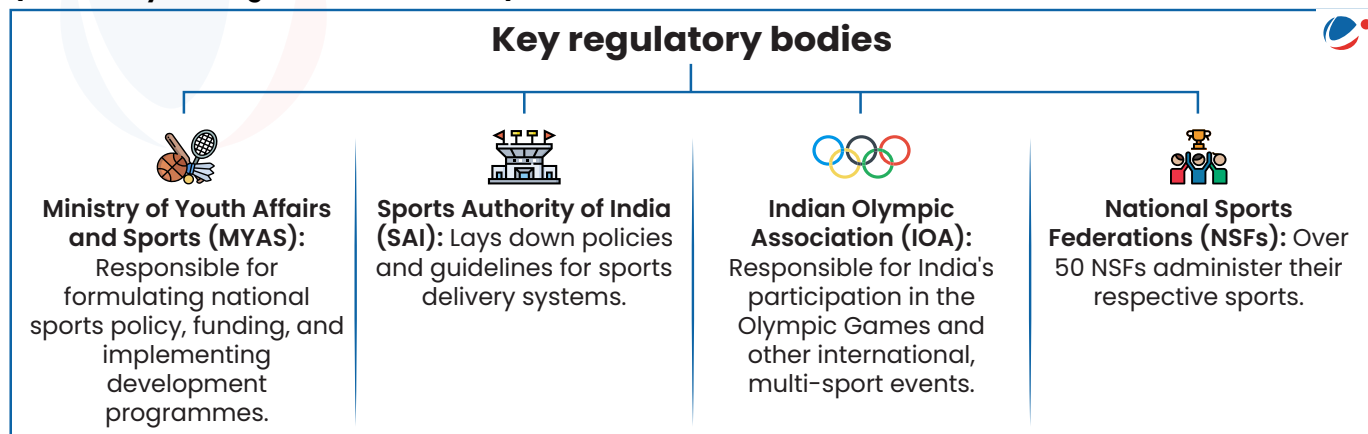
## 1.7. NATIONAL SPORTS GOVERNANCE ACT, 2025

### Why in the News?

The President recently gave assent to the **National Sports Governance Bill, 2025**.

### Sports governance in India

- Sports regulation is under state jurisdiction according to **Entry 33 of the State List in the Seventh Schedule**.
- Existing policies include the **National Sports Policy (1984, revised 2001)** and the **Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act, 2007**.



## Key highlights of the Act

- **National sports bodies:** Establishes National Olympic Committee, Paralympic Committee, and **Sports Federations affiliated with international bodies, with units at state/district levels**, governed by international charters.
- **National Sports Board (NSB):** Recognizes sports bodies and affiliates; only **recognized bodies get central funds**.
  - ➔ **NSB sets a Code of Ethics** and is a public authority under RTI.
  - ➔ Members appointed for expertise **in sports governance and law**.
- **National Sports Tribunal:** Handles sports-related disputes except those involving **international bodies or internal NSF issues**.
- **Election Oversight:** Central government forms a panel to oversee elections of national bodies; **sports bodies oversee affiliate elections**.
- **Central Government Powers:** Can exempt national bodies or **affiliates from the Act for public interest and promotion of sport**.

## Need for a comprehensive sports Law in India

- **No uniform sports law**, causing **inconsistent and outdated regulations**.
  - ➔ The 2013 National Sports Development Bill was **not enacted**.
- **Politicians** with little sports knowledge dominate **NSFs**; **E.g. FIFA suspended All India Football Federation (AIFF) for external interference**.
- **Overlapping roles** of **SAI, IOA, and NSFs** cause confusion and delays.
- **Inadequate Fund Utilization:** Less than **40% of the 2022-23 sports budget** was used for athlete development.
- **Poor Implementation** of National Sports Policy (1984, revised 2001).
- **Olympic Bid:** The law aids **India's bid for 2036 Olympics** by aligning with **Olympic Charter**.

## Conclusion

The National Sports Governance Act, 2025, **aims to build a transparent, accountable, and athlete-focused sports system, aligned with global best practices**.

## Related News

**National Anti-Doping (Amendment) Bill, 2025:** The Bill amends the National Anti-Doping Act, 2022, and was given Presidential assent.

- **Aim:** Prohibits doping in sports and sets framework for testing, enforcement, and adjudication.
- Aligns with UNESCO convention against doping.
- **Establishes:**
  - ➔ **National Anti-Doping Agency (NADA)** to enforce anti-doping rules.
  - ➔ **National Board for Anti-Doping in Sports** to oversee NADA and advise government.
- **Changes from earlier Act:**
  - ➔ Appeal Panel now **constituted by central government**, not National Board.
  - ➔ NADA members have operational independence per **WADA and UNESCO norms**.
  - ➔ Only specified bodies can **appeal to CAS (earlier any person could)**.
  - ➔ **Testing labs must have mandatory WADA accreditation** (previously voluntary).
  - ➔ Anti-doping violations adopt **World Anti-Doping Code's legal definitions and schedules in India**.

# 1.8. JAN VISHWAS (AMENDMENT OF PROVISIONS) BILL, 2025

## Why in the News?

The Jan Vishwas (Amendment of Provisions) Bill, 2025 **was recently introduced in Lok Sabha to decriminalize and rationalize offences, promoting trust-based governance for ease of living and business**.

## More on the News

- **Builds on the Jan Vishwas Act, 2023**, which decriminalized 183 provisions across 42 Central Acts managed by 19 Ministries.

- The 2025 Bill expands reforms to cover **16 Central Acts under 10 Ministries**.
- Replaces harsh compliance **rules with rational, trust-based processes to simplify procedures, reduce judicial workload**, and foster a better environment for citizens and businesses.

### Key Features of the Bill

- **First-time contraventions:** For **76 offences under 10 Acts**, first violations get only warnings or advisories, no punishment.
- **Decriminalization:** Removes imprisonment for minor, technical, procedural defaults; **e.g., Tea Act, 1953 and Legal Metrology Act, 2009 further decriminalized**.
- **Rationalized penalties:** Fines are proportionate with **higher penalties for repeat offences**.
- **Adjudication:** Officers can **impose penalties administratively** for **faster case resolution** and less court burden.
- **Automatic fine revision:** Fines increase by **10% every 3 years** to keep deterrence effective **without new laws**.

### What Are Process Reforms?

- Process reforms are **“nuts and bolts” changes** to specific rules or procedures.
  - ➡ Unlike structural reforms, **which change the overall system, process reforms** improve how existing systems work.
- They are small, targeted changes **aimed at improving efficiency in specific sectors or policies**.
- **The Economic Survey 2020–21 supports simpler regulations** and smoother processes over complex rules and opacity.

### Significance of Process Reforms

- Keep **India’s growth steady** between big changes.
- **Remove daily hurdles** for citizens, businesses, and researchers.
- **Fixes delays** caused by old rules and paperwork.
- **Boost competitiveness**, e.g., telecom liberalization helped IT and BPO.
- **Cut corruption** by making systems clear and simple.
- Promote a culture of constant **problem-solving in government**.

### Guiding Principles for Process Reforms

- **Simplify processes** with clear communication (e.g., National Single Window).
- **Define goals** and align efforts (e.g., PRAGATI).
- **Agile, tech-responsive design** in procedures (e.g., Quality-cum-Cost-Based tendering).
- **Culture of ongoing review & refinement** (e.g., Digital Public Infrastructure, India Stack).
- **Involve stakeholders** in decisions (e.g., Community Forest Management).

### Case Studies of successful Process Reforms

- **Direct Benefit Transfer (DBT):** Digitized subsidies **reduced leakages and improved service delivery**.
- **Voluntary Company Liquidation:** Streamlined procedures cut liquidation time from over **4 years to among the fastest globally**.
- **Rationalization of Autonomous Bodies:** Merged or closed outdated bodies like **All India Handloom Board to reduce overlap**.
- **Government e-Marketplace (GeM):** Online platform increased **transparency and lowered procurement costs by 15–20%**.
- **Legal and Dispute Reforms:** Reduced court delays and costs, **including Insolvency and Bankruptcy Code measures**.
- **Legal Metrology Amendments:** Decriminalized minor offences to **reduce harassment and rent-seeking**.

### Conclusion

As India grows into an innovation-driven economy, **reforms like Jan Vishwas Bill are milestones, not endpoints**. Embracing **technology, simplification, and citizen-focused governance** can foster transparency, responsiveness, and **adaptability in institutions**.



## 1.9. THE PROMOTION AND REGULATION OF ONLINE GAMING ACT, 2025

### Why in the News?

Parliament has passed the Promotion and Regulation of **Online Gaming Act, 2025**, banning online money games and regulating other online games.

### More on the News

- The Act aims to create a **strong legal framework to regulate, promote, and encourage online gaming for innovation** and economic growth while ensuring a safe and responsible digital environment.
- Introduced as a **Finance Bill under Articles 117(1) and 117(3)** with the President's recommendations.

### Why was the Act needed?

- **Addiction & Loss:** Online money games **cause addiction and huge financial loss**.  
➔ Over 45 crore people lost ₹20,000 crores.
- **Mental Health:** WHO calls **gaming disorder a health problem** with loss of control.
- **Legal Gaps:** Gambling laws exist but **online games were mostly unregulated, with offshore issues**.
- **Security Risk:** Some platforms used for **terror funding and money laundering**.
- **E-sports Boost:** Act promotes safe **gaming and innovation in e-sports**.

### Key Provisions of the Act

- **Online Games Definition:** Online Games are played on **digital devices via internet or similar technology**.
- **Categorization:**
  - ➔ **E-Sport:** Competitive digital sports with tournaments, e.g., Indian player Ved "Beelzeboy" Bamb won Pokémon GO World Championship 2025.
  - ➔ **Online Social Games:** Skill-based games for entertainment and learning, e.g., Wordle, Kahoot!
  - ➔ **Online Money Games:** Games involving financial stakes, e.g., Dream11, Rummy, Poker, WinZO.
- **Applicability:** Applies across India and to online money gaming services **offered inside or operated from outside India**.
- **Prohibition of Online Money Games:** Completely banned, including **ads and financial transactions** related to them.  
➔ Authorities can block illegal platforms under **IT Act, 2000**.
- **Promotion of E-Sports:** Recognized as a **legitimate sport; government to set guidelines** and develop infrastructure.
- **Promotion of Social & Educational Games:** Government can recognize and **register safe, age-appropriate social games with dedicated platforms**.
- **Online Gaming Authority:** **National regulator** to categorize, register games, identify money games, and handle grievances.
- **Offences & Penalties:**
  - ➔ Up to 3 years imprisonment **and ₹1 crore fine** for offering online money games.
  - ➔ Ads attract up to **2 years imprisonment and ₹50 lakh fine**.
- **Corporate Liability:** Companies and officers held responsible; protections for **diligent independent directors**.
- **Investigation Powers:** Government can authorize **searches, seizures, and arrests without warrant in certain cases**.

### Other Notable Initiatives to Counter the Risks of Online Gaming

- **Section 69A, IT Act 2000:** Allows government to block illegal websites.
- **IT Rules 2021:** Set norms for online gaming platforms, including intermediary registration with Self-regulatory Bodies (SRBs).
- **Bharatiya Nyaya Sanhita, 2023:** Sections 111 & 112 penalize unauthorized betting/gambling.
- **IGST Act 2017:** Regulates illegal and offshore gaming platforms.
- **Consumer Protection Act 2019:** Bans misleading/surrogate ads; CCPA advised against celebrities endorsing betting platforms.

## Conclusion

The Prohibition and Regulation of Online Gaming Act, 2025 **protects citizens from harmful online money games** while promoting e-sports and social games. It aims to boost the creative **economy and ensure technology benefits society**.

# 1.10. ONLINE CONTENT REGULATION

## Why in the News?

**Ministry of Information and Broadcasting (I&B)** has banned several OTT platforms, for streaming **obscene content**.

## More on the news

- They were banned under the **IT Act, 2000 and IT Rules, 2021**.
- In **Ranjit D. Udeshi v. State of Maharashtra (1965)**, SC upheld obscenity as a **valid restriction on free speech (Art. 19)**.

## Need for content regulation

- **Societal Reach:** 950+ million internet users, unregulated content influences society.
- **Violence:** 2010 study shows **~90% pornography showed aggression**.
- **Protecting Vulnerable:**
  - ➔ **Children:** Early exposure distorts healthy views.
  - ➔ **Women:** Promotes objectification and inequality.
  - ➔ **Minorities:** Hate speech fuels division.
- **Ethical Imperative:** Degrading material harms norms, families, society. **Example: Bulli Bai app, 2021.**
  - ➔ **Philosophical Basis:**
    - ◊ **Mill's Harm Principle:** Freedom limited if harmful.
    - ◊ **Kant's Imperative:** People not objects.
    - ◊ **Unequal Impact:** Low-income, low-literacy groups most exposed.

## Regulatory framework for regulation of obscene content

- **IT Act 2000:**
  - ➔ **Sec 67/67A:** Publishing obscene content online.
  - ➔ **Sec 69A:** Govt power to block content.
  - ➔ **Sec 79:** Safe harbour for intermediaries, lost if unlawful content not removed.
- **IT Rules 2021:** Place OTT and digital news under MIB.
- **BNS 2023 (Sec 294):** Defines obscenity; criminalises obscene material online.
- **POCSO Act:** Bans distribution/sale of child pornography.
- **Indecent Representation of Women Act, 1986:** Prohibits indecent depictions of women.

## Challenges in regulating content

- **Regulatory Challenges**
  - ➔ **Regulatory Overlap:** Split roles of **MeitY (IT Rules)** and **MIB (content)** cause coordination issues.
  - ➔ **Subjectivity:** Different interpretations of obscenity leading to **arbitrary govt action**.
- **Technological Challenges**
  - ➔ **Encryption:** Enables illegal content sharing **without detection**.
  - ➔ **Algorithms:** Feedback loops **push more explicit content**.
  - ➔ **VPNs:** Allow bypassing of **restrictions and access** to banned content.
- **Creative Freedom:** Strict bans curb creativity, **infringe Article 19(1)(a)**. Example: ban on movie Fire (**homosexuality**).

## Way Ahead

- **Multi-Stakeholder Consultations:** Balance speech and sensitivities with all stakeholders.
- **Use of Technology:** Filters, user-report scanners, AI-based moderation.
- **Strengthen Self-Regulation:** Industry-led bodies to set standards, reduce govt control.
- **Learn from Best Practices:** EU Audiovisual Media Directive and GDPR ensures balance.

## 1.11. DIGITAL COLONIALISM

### Why in the News?

Former Indian Vice President warned of **digital colonialism**, calling **dependence on foreign digital infrastructure the prime threat to sovereignty, not invasion**.

### About Digital Colonialism

- It refers to dominance of **global big tech firms that extract and monopolize user data**, often **without consent**, undermining state and individual autonomy.

### Key Enabler of Digital Colonialism

- **Heightened economic gains:** Drives economic gains through user analysis.
- **Competitive edge:** Improves prediction of behaviors.
- **Advances artificial intelligence:** Fuels AI with big data for higher productivity.
- **Exchange Value of Data:** Lets users/organizations earn by data sharing.

### Key Pillars of Dominance characterizing Digital Colonialism

- **Economic Domination:** Dependence on **monopolistic tech** (Google, Microsoft, Facebook).
- **Imperial Control:** Proprietary systems and **restrictive licensing** (e.g., **App Store policies exercise unilateral decisions over apps**)
- **Surveillance Capitalism:** Mass data harvesting shaping political/economic outcomes (e.g., **Cambridge Analytica**).
- **Tech Hegemony:** Cloud monopolies (**Amazon, Microsoft, Google**) dictate data flows.
- **Cultural Imperialism:** Algorithms reinforcing **dominant values**.
- **Benevolent Masking:** Big tech presenting profit-driven projects as **philanthropy** (e.g., **Free Basics**).

### Key Issues with Digital Colonialism

- **Rising North-South Disparity:** Data-driven digitalization deepens divides as most tech giants belong to the North.
- **National Security:** Weak local infrastructure makes critical sectors vulnerable to external control.
- **Privacy & Digital Rights:** Dependence on foreign platforms risks privacy breaches and surveillance.
- **Existential Threat to Local Business:** Global dominance in ads, retail, and services undercuts local enterprises.
- **Economic losses:** Tech giants shift profits to tax havens, reducing revenues for countries like India.
- **Difficulty in Regulation:** Laws struggle to govern cyberspace due to its borderless nature.
- **Network Effect:** Once dominant, platforms lock users in, blocking local competition.

### Measures to tackle digital colonialism

#### India:

- **DPDP Act, 2023:** Framework for personal data protection, including processing abroad for Indian services.
- **Competition Act, 2002:** Prevents unfair trade, protects consumers.
- **Global advocacy:** Push for data localization, sovereignty at G20, BRICS, WTO; led G20 DPI task force.
- **Other efforts:** ONDC for e-commerce alternatives; India Stack as national DPI.

#### Other Nations:

- **European Union:** GDPR, Data Act, Governance Act, AI Act for digital autonomy.
- **China:** Digital Silk Road under BRI to expand telecom, AI, cloud, surveillance.
- **Russia:** Sovereign Internet Law (2019) for centralised internet control.

### Way Forward

- **Digital sovereignty:** States to control all digital assets and supply chains.
- **Data Localisation:** Ensure storage, transfer, processing within borders.
- **Governance Framework:** Rules for data generation, protection, sharing, infrastructure.
- **Cross-Border Flows:** Balance growth, public interest, and integration.
- **Data Lifecycle Reform:** Manage data from creation to reuse/destruction.



- **Inclusive Digital Future:** Bridge divides, ensure inclusivity, uphold ethics.

## Conclusion

Digital colonialism fragments the internet into **geopolitical blocs ("splinternet")**. Global cooperation and **balanced governance are essential** for digital solidarity and safeguarding **sovereignty**.

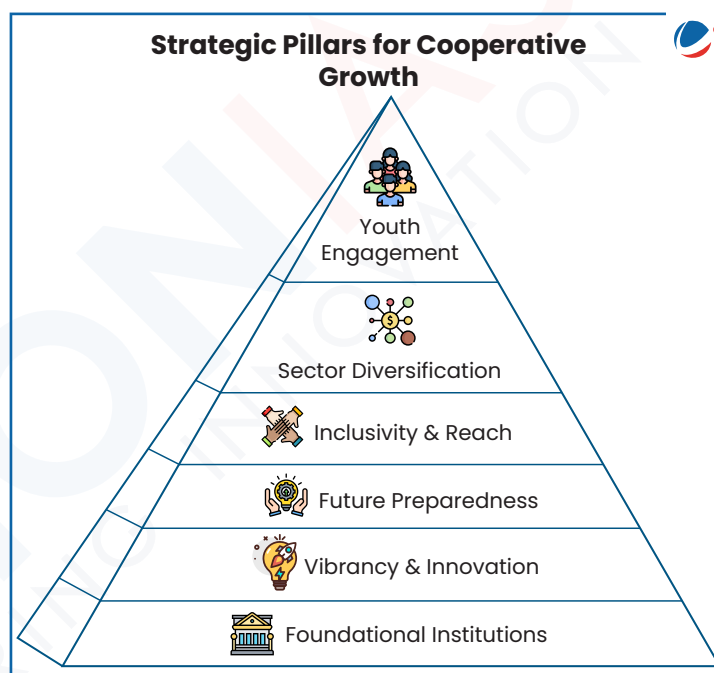
# 1.12. NATIONAL COOPERATIVE POLICY 2025

## Why in the news?

Union Minister of Cooperatives launched **the National Cooperative Policy 2025**.

## Key features of the policy

- **Second Policy:** First was in 2002.
- **Vision:** Cooperatives as key to **Viksit Bharat 2047** under **Sahkar-se-Samridhi**.
- **Objectives:** Activate participation of **50 crore people currently outside or inactive**.
- **Mission Pillars:** Six strategic pillars identified. (infographic)
- **Other key features of policy include**
  - ➔ **Legislative Reforms:** States to amend **laws for transparency, autonomy, ease of business**.
  - ➔ **Financial Empowerment:** Reduce cooperative taxes; **extend corporate incentives**.
  - ➔ **Business Ecosystem:** Model cooperative village in each State/UT; **branding under Bharat brand**.
  - ➔ **Future-Readiness:** National Cooperative Stack integrated **with Agri-stack, databases**.
  - ➔ **New Sectors:** Expand into clean energy, **waste, technology**.
  - ➔ **Inclusivity:** Promote women, youth, SC/ST participation.
  - ➔ **Targets: Triple GDP share by 2034;** 30% more societies.
- **Implementation:** By Implementation Cell (Ministry of Cooperation).
- **Monitoring:** By National Steering Committee, chaired by Union Minister.



## Cooperatives in India

- **Origin:** Began with **Cooperative Credit Societies Act, 1904**.
- **Definition:** Autonomous voluntary association, jointly owned, democratically controlled, meeting economic, social, cultural needs.
- **Status:** More than 8 lakh societies, **2 lakh credit (e.g., PACS), 6 lakh non-credit (e.g., housing, consumer), more than 30 crore members linked with cooperatives**.
  - ➔ **Top Sectors:** Housing, Dairy, PACS.
- **Constitutional Status:** (97th Amendment, 2011)
  - ➔ **Fundamental Right: Article 19(1)(c)** includes cooperatives.
  - ➔ **Directive Principle: Article 43B** (promote cooperatives), **New Part IXB:** Articles 243ZH–243ZT for governance.
- **Governance Structure**
  - ➔ **Multi-State Cooperatives:** Union List; governed by **MSCS Act, 2002**.
  - ➔ **State Cooperatives:** State List; governed by respective Acts.

## Significance of Cooperatives

- **Rural Upliftment:** 1/3rd rural population linked.
- **Boosting Farmers' Income:** Pooling, bargaining power (e.g., Amul).

- **Societal Impact:**
  - ➔ **Women Empowerment:** SEWA Bank for microfinance, jobs, equality.
  - ➔ **Sustainability:** ULCCS, Kerala for green practices.
- **Community Ties:** Build social capital.
- **Values:**
  - ➔ **Equality:** One person–one vote.
  - ➔ **Leadership:** Democratic election develops leaders (e.g., Maharashtra).

### Challenges for Cooperatives

- **Limited Capacity:** Rural cooperatives lack infrastructure, training, expertise.
- **Political Intervention:** Party interference reduces transparency, efficiency.
- **Regulatory Complexity:** Bureaucracy slows cooperative growth.
- **Digital Gap:** Only 45% members familiar with digital tools.
- **Regional Imbalance:** Top 5 states hold 57% of cooperatives.
- **Other Issues:** Skilled workforce shortage, weak cooperation, limited members/resources.

### Conclusion

Strengthen cooperatives through **private partnerships, better infrastructure, and tech access**. Promote inclusivity, merge weak units, and ensure **transparency via CGI and RTI**.

## 1.13. PRI FINANCES

### Why in the news?

**The Standing Committee on Rural Development & Panchayati Raj** reported on **fund devolution** under the Panchayati Raj system (PRI).

### More on the news

- It focused on financial issues faced by PRIs, **highlighting weak transfer of 3Fs (Functions, Funds, Functionaries)**.

### Source of Revenue for PRI

- **Tax and grants** from Central/State governments.
- **Own taxes, duties, tolls**, fees under Article 243–H.
- Funds for executing **Centrally Sponsored Schemes (CSSs)**.

### Issues of the Finance of PRI

- **Declining Allocations:** Successive budgets reduced PRI funds, **weakening decentralisation**.
- **Tied vs Untied Grants:** 15th FC **have 60% tied, 40% untied funds** leading to underutilisation.
- **Election Delays:** Legal/administrative hurdles (**e.g., OBC quota in Telangana**) stall fund use.
- **Weak Functioning of District Planning Committee:** Poor coordination leading to **fragmented planning, underuse of funds**.
- **Irregular State Finance Commissions (SFC):** Only 9 states have 6th SFC; **delays devolution**.
- **Poor GPDP Uploads:** Low compliance on **eGram Swaraj** delays 15th FC grants.
- **Low Own Revenue:** Panchayats' **own source of revenue (OSR) is only 1.1% thus weak autonomy**.

### Importance of Finance for PRI

- **Rural Development:** Implement schemes, align with local needs.
- **Agriculture:** Boost cooperatives (e.g., Amul), promote sustainability.
- **SDGs:** Localisation aids 2030 targets.
- **Health:** Maintain health centres, train workers; better health leading to lower infant mortality.

- **Education:** Build, maintain schools; reduce dropouts, improve quality.
- **Women Empowerment:** 1/3rd seats reserved; studies show better health, education, welfare outcomes.

#### Initiatives to improve finances of PRIs

Audit Online	OSR Augmentation	Ranking System	eGramSwaraj
For digital audits of panchayat accounts	SVAMITVA for property tax; mineral funds sharing	Basis for performance grants	Upload GPDPs for accountability and transparency

#### Recommendations given in the report

- **Reallocation Flexibility:** Allow tied funds for other uses; **provide timely untied funds** through formula based on needs (e.g., backwardness, area).
- **Continuity in Election Delays:** Ensure timely elections; if delayed, **appoint nominated representatives** with clear roles.
- **Regular Constitution of SFCs:** States must constitute SFCs on time, **submit reports in uniform**, simple formats.
- **Ensure Timely GPDP Uploads:** **Train Panchayat members for preparing**, submitting GPDPs aligned with Block/District plans.
- **Adequate Devolution:** States to create time-bound **devolution roadmap**; **transfer control** over local staff (e.g., health workers).
  - ➔ **Ministry of Panchayati Raj (MoPR)** to prepare **State of Devolution Report** on 3Fs progress.
- **Strengthen OSR Generation:** Provide financial/technical aid, devolve more powers, and reward high-performing Panchayats.

## 1.14. NEWS IN SHORTS

### 1.14.1. Constitutional Validity of Narco Tests

The **Supreme Court overturned the Patna High Court's order** which allowed Narco-tests on all accused and witnesses.

#### About Narco-analysis test

- It is an **interrogation technique** where a suspect is injected with a psychoactive drug to suppress reasoning and self-control.
- Sodium Pentothal is used, also applied as anesthesia in higher doses.

#### Key Highlights of the Judgement

- **Involuntary Narco Test: Violate Articles 20(3)** (right against self-incrimination) and **21** (right to personal liberty), **illegal**.
- **Voluntary Narco-Test Cannot Be Sole Basis for Conviction:**
  - ➔ However, **new information** discovered through the test **can be admitted** under the **Indian Evidence Act, 1872**.
- **Limited Right to Voluntarily Undergo the Narco-Test:** Accused **does not have an absolute right** to undergo this.

### 1.14.2. Commercial, Prohibited Speeches Not Part Of Fundamental Rights: SC

The court was hearing a **case against social media comedians for "abusing freedom of speech and expression"**.

#### Key Judicial Observations

- **Freedom of speech (Art. 19(1)(a))** excludes commercial and prohibited speech.
  - ➔ Hate speech **incites hatred or violence** against groups based on inherent traits.
  - ➔ Commercial speech involves advertising with **economic intent**.
- **Influencers with followers** must act **responsibly**.
- **Penal actions** and compensation suggested under **IT Rules and Cinematograph Act**.
- Court directed government to **draft social media content regulation guidelines**.

#### Legal Framework for Online Content in India

- **IT Act, 2000 (Sec. 69A):** Govt. can block online content.
- **Cinematograph Act, 1952:** Bans content maligning or slandering persons/groups.

## SC Judgement related to free speech

- **Amish Devgan v. Union of India (2020):** Differentiated **free speech from hate/prohibited speech** and emphasized influencers' responsibility.
- **Shreya Singhal v. Union of India (2015):** Held **legitimate expression cannot be restricted** without imminent harm.

### 1.14.3. Disruption of Parliament

In the 17th Lok Sabha, sittings were **88% in Lok Sabha and 73% in Rajya Sabha**.

- In the 1950s, Parliament met **120–140 days yearly**; now only **60–70 days**.

#### Reasons for the Disruptions



Opposition parties use it to **gain greater publicity and visibility in public**.



**Anti-defection law** forces MPs to follow party whips.



**Disruptions arise** from **controversial national or regional issues** dominating **public attention**.



**Increase in political parties** means less debate time and more disruptions over unlisted issues

## Issues with Parliamentary Disruptions

- **Weak Accountability:** Disruptions hinder debates and government questioning.
- **High Cost:** Running Parliament costs ₹2.5 lakh per minute.
- **Eroding Trust:** Frequent stalling reduces public faith in Parliament.

## Measures that can be adopted to address parliament disruption

- **Dedicated Opposition Time:** Like UK, earmark specific debate days.
- **Stronger Ethics Committees:** Monitor and report disruptions.
- **Annual Calendar:** Fix yearly sittings with limited flexibility.

### 1.14.4. Rules for OCI Card Tightened

Union Ministry of Home Affairs has issued the notification under **Section 7D of the Citizenship Act, 1955**.

#### Key Highlights of the Notification

- **OCI registration can be revoked if:**
  - ➔ The individual is sentenced to **at least 2 years in prison; or**
  - ➔ A charge sheet is filed against them for **offence with 7 or more years' imprisonment**.

## About OCI Cards

- Introduced in 2005 as an amendment to the **Citizenship Act, 1955**.
  - ➔ In 2015, the **PIO card scheme merged with OCI**; all PIO cardholders became OCI cardholders.
- OCI is **not dual citizenship** and does not grant political rights.
- **Cancellation grounds:** obtained by fraud, disaffection to the Constitution, or threats to sovereignty, security, foreign relations, or public interest.



### Eligibility for OCI Registration

- ◆ Foreign nationals who were **citizens of India on or after 26 Jan 1950**.
- ◆ Those eligible to become **citizens of India on 26 Jan 1950**.
- ◆ Persons from **territories that became part of India** after 15 Aug 1947.
- ◆ **Children, grandchildren, or great-grandchildren** of such citizens.
- ◆ **Minor children** with one or both parents as Indian citizens.
- ◆ **Spouse of Indian/OCI citizen**, with registered marriage subsisting for at least 2 years.
- ◆ **Exception:** Citizens of Pakistan, Bangladesh, or other countries notified by the Government are not eligible.

## Benefits for OCI Cardholders

- ➔ **Multiple-entry, life-long visa** for India visits.
- ➔ **No registration needed** with Foreign Registration Officers regardless of stay length.
- ➔ Parity with **NRIs in economic, financial, and educational fields** except for agricultural or plantation property purchase.

### 1.14.5. Removal of Judges in Higher Judiciary

**145 Lok Sabha MPs signed** a motion against Justice Yashwant Varma under **Articles 124, 217, 218**.

- Rajya Sabha Chairman also received a motion **signed by 50+ members**.

## Constitutional provisions regarding removal of judges

- **Article 124(4):** Removal of SC judges on proven misbehavior or incapacity.
- **Article 124(5):** Parliament regulates procedure by Judges Enquiry Act, 1968.
- **Article 217(1)(b):** HC judge removed by President in same manner as SC judge under Art. 124(4).
- **Article 218:** Extends 124(4) & 124(5) provisions to High Courts.



## Steps in removal process

<b>Initiation</b>	➤ Motion with 100 LS or 50 RS members submitted to Speaker/Chairman.
<b>Committee formation and Investigation</b>	➤ If admitted, a <b>3-member committee (SC judge, HC chief justice, jurist)</b> investigates. ➤ If judge found guilty of <b>misbehaviour or incapacity</b> , House considers motion.
<b>Parliamentary Approval</b>	➤ Motion must pass both Houses with special majority ( <b>total membership majority + two-thirds present and voting</b> ).
<b>Presidential order</b>	➤ After passage, address sent to <b>President in same session</b> . ➤ President issues <b>removal order</b> .
<b>Note: There is no mention of word impeachment for removal of judges in the constitution.</b>	

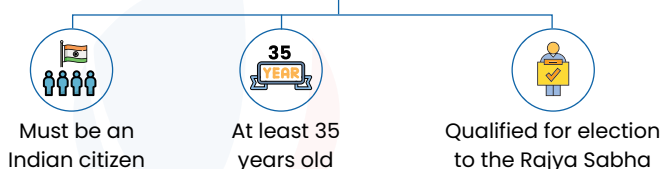
## 1.14.6. Election to the Office of the Vice-President of India

The Election Commission of India (ECI) has announced the **election date for the 17th Vice-Presidential Election**.

### Constitutional Provisions related to Vice President:

- **Term & Vacancy:** 5-year term; election must be held promptly if vacant.
- **Electoral College:** Includes 782 Lok Sabha and Rajya Sabha members (elected + nominated)
- **Voting System:** Proportional Representation by Single Transferable Vote and secret ballot.
- **Authority:** ECI conducts election under constitutional and legal powers.

### Eligibility for Vice-President



### Election Procedure of Vice President

- **Nomination:** Needs 20 proposers/seconders and ₹15,000 deposit.
- **Voting:** In Parliament using **ECI-supplied pens**; **first preference compulsory**.
- **Supervision:** **Returning Officer (Rajya Sabha Secretary General)** and observers appointed.

### Key Safeguards Followed in Elections

- **No party whip** allowed.

- **Breach of secrecy** or unauthorized pen invalidates vote.
- **Bribery or undue influence** can challenge election legally

## 1.14.7. ECINET app

Election Commission of India (ECI) used **ECINET digital platform** during bye-elections in **Kerala, Gujarat, Punjab**.

### About Form 17C

- 1st part provides information related to Total number of electors assigned to the Polling Station, Total number of voters as entered in the Register for Voters (Form 17A), etc.
- 2nd part contains information like the **name of the candidate and the total votes they received**.
- Under **Conduct of Elections Rules, 1961**, **Presiding Officers** are required to **furnish Form 17C to booth-level agents**.

### About ECINET app

- **ECINET** is a new **one-stop platform** for timely voter turnout reporting.
- **Key Features:** **Near Real-Time Voter Turnout Update, Data Accuracy Ensured, Faster Index Card Publication.**
  - ➔ The **Index Card** is **non-statutory post-election report** that shares detailed **constituency-level election data**.

## 1.14.8. Bills of Lading Bill 2025

Parliament has **passed the Bills of Lading Bill 2025**.

### About Bills of Lading Bill 2025

- Updates and simplifies the **legal framework for shipping documents**.
- Replaces the **Indian Bills of Lading Act, 1856**.
- Bill of lading is a document from freight **carrier to shipper detailing goods' type, quantity, condition, and destination**.


## 1.14.9. National Cooperative Development Corporation (NCDC)

The Union Cabinet has approved the **Central Sector Scheme "Grant in aid to National Cooperative Development Corporation (NCDC)"**.


### About the Grant in Aid to NCDC


- **Scheme outlay: Rs. 2000 crore over four years (2025-29)**, Rs. 500 crores annually.
  - ➔ **NCDC is the executive agency for fund disbursement, project monitoring, and loan recovery.**
- **Grant-in-aid:** Payments by one government to another as **assistance or donations**.

→ **Guided by Articles 275 (Statutory Grants) and 282 (Discretionary Grants) of the Constitution.**



**National Cooperative Development Corporation (NCDC)**





**Genesis:** The NCDC was established in 1963 by an Act of Parliament as a **statutory Corporation** under the **Ministry of Cooperation**.

**Functions:** The NCDC Act has been amended to **expand the corporation's area of operation**, allowing it to **assist different types of cooperatives and broaden its financial base**.

**Management:** The NCDC is managed by a **General Council**, which has 51 members who **shape its policies and programs**. **Day-to-day activities** are handled by a 12-member **Board of Management**.





### 1.14.10. Quality Council of India (QCI)

Minister of State for Commerce and Industry **inaugurated the new unified headquarters of the Quality Council of India (QCI) at the World Trade Centre in New Delhi.**

#### About Quality Council of India

- **Genesis:** Established as a **National body for Accreditation** in 1996.
- **Mission:** To lead **nationwide quality movement** in India.
- **Non-Profit Organization (NPO):** It is an NPO registered under the **Societies Registration Act of 1860**.
- **PPP Model:** Supported by **Government of India and industry associations** – ASSOCHAM, CII, and FICCI.
  - **DPIIT** (Ministry of Commerce) was made the **nodal agency for all matters connected with quality and QCI**.
- **Chairman:** Chairman of QCI is **appointed by the Prime Minister** on the recommendations of the industry.
- **Role in Swachh Bharat Mission (SBM):** Serves as the implementing agency for **Swachh Survekshan survey**.

#### Key objectives of QCI

-  To lead **National Quality Campaign**.
-  To develop **apropos capacities at the level of Governments, Institutions and enterprises**.
-  To develop, establish & operate **National Accreditation programmes**.
-  To build capacities to overcome **sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) constraints etc.**

### 1.14.11. Adi Karmyogi Programme

The Ministry of Tribal Affairs launched the **Adi Karmyogi Programme**.

#### About the Adi Karmyogi Programme

- **Aim:** Building a **cadre of highly motivated officers and change makers** dedicated to **grassroots transformation**.
- **Objective:** To take **capacity-building** to about 20 lakh field-level stakeholders by creating a batch of trainers and master trainers at the State, district, and block levels.
- It seeks to emphasize **citizen-centric ideation and delivery**.
- **Target:** Reaching 1 lakh tribal villages and habitations.

### 1.14.12. National Standards for Civil Service Training Institutes (NSCSTI)

Recently, NSCSTI 2.0 framework was launched by the **Minister of State for Personnel, Public Grievances and Pensions**.

#### About National Standards for Civil Service Training Institutes

- Developed by **Capacity Building Commission under Mission Karmayogi** to build a competent, future-ready **civil service for effective service and Atmanirbhar Bharat**.
- **Objectives:** Establish Baseline Capacities In **Central Training Institutes, Enhance Management Tools, And Standardise Capacity Building With Clear Procedures**.

#### NSCSTI 2.0 Framework

- Introduces Hybrid And **AI-Driven Learning Models**.
- **Inclusive Design** For All Government Training Levels.
- Promotes Adoption Of Best Practices By Bridging **Public-Private Sectors**.

#### National Standards for Civil Service Training Institutions (NSCSTI)

Eight Pillars of Excellence

-  Training Needs Assessment and Course Design
-  Faculty Development
-  Resource and Training Targets
-  Trainee Support
-  Digitalisation and Training Delivery
-  Collaboration
-  Training Evaluation and Quality Assurance
-  Operations and Governance

## 1.15. TEST YOUR LEARNING

**1. With reference to Narco-analysis test in India, consider the following statements:**

1. Involuntary Narco-tests violate both Article 20(3) and Article 21 of the Constitution.
2. Voluntary Narco-tests can be the sole basis for conviction in a criminal trial.
3. The Supreme Court has held that even voluntarily undergone Narco-tests have limited evidentiary value.

Which of the statements given above is/are correct?

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

**2. Which body prepares the State of Devolution Report for Panchayati Raj Institutions (PRIs)?**

- (a) Finance Commission
- (b) Ministry of Panchayati Raj (MoPR)
- (c) NITI Aayog
- (d) State Finance Commissions

**3. With reference to the Inter-State River Water Disputes in India, consider the following statements:**

1. Article 262 of the Constitution empowers the Parliament to adjudicate inter-state water disputes.
2. The Supreme Court can directly adjudicate original disputes related to inter-state rivers.
3. The Inter-State River Water Disputes Act, 1956 provides for setting up of tribunals for adjudication of disputes.

Which of the above statements is/are correct?

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

**4. Consider the following statements.**

1. Sports governance in India is placed in the Concurrent List of the Seventh Schedule.
2. The National Sports Governance Act, 2025 establishes a National Sports Tribunal for dispute resolution.

Which of the above is/are correct?

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

**5. Jan Vishwas (Amendment of Provisions) Bill, 2025 provides for**

- (a) Criminalization of minor offences
- (b) Suspension of MPs upon charge-sheet
- (c) Automatic revision of fines by 10% every 3 years
- (d) Direct impeachment of Ministers

### Mains Question

**Q1. (150 words)**

Digital Colonialism poses a serious threat to India's sovereignty. Discuss with reference to recent government measures.

**Q2. (250 words)**

Critically evaluate the key provisions of the National Sports Governance Act, 2025 in India's aspiration to host the 2036 Olympics.

# INTERNATIONAL RELATIONS



## Table of Content

2.1. FAIR AND REPRESENTATIVE GLOBAL ORDER . . . . .	27	2.10. INDIA LATIN AMERICAN AND CARIBBEAN COUNTRIES TIES . . . . .	35
2.2. INDIA-UNITED KINGDOM (UK) COMPREHENSIVE ECONOMIC AND TRADE AGREEMENT (CETA) . . . . .	27	2.11. INDIA-AFRICA RELATIONS . . . . .	37
2.3. INDIA-MALDIVES RELATIONS . . . . .	29	2.12. ECONOMIC COMMUNITY OF WEST AFRICAN STATES (ECOWAS) . . . . .	37
2.4. INDIA AND SHANGHAI COOPERATION ORGANIZATION (SCO) . . . . .	29	2.13. GROUP OF SEVEN (G7) . . . . .	38
2.5. CHINA-LED TRILATERAL NEXUS . . . . .	30	2.14. GEELONG TREATY UNDER AUKUS . . . . .	39
2.6. CHINA'S HYDROPOWER PROJECT ON THE BRAHMAPUTRA RIVER . . . . .	31	2.15. WORLD TRADE ORGANIZATION (WTO) REFORMS . . . . .	40
2.7. INDIA'S STRATEGY IN INDIAN OCEAN . . . . .	32	2.16. GIRMITIYA COMMUNITY . . . . .	41
2.8. ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN) CENTRALITY . . . . .	33	2.17. ISRAEL-US-IRAN CONFLICT . . . . .	42
2.9. BRICS RIO DE JANEIRO DECLARATION . . . . .	34	2.18. NEWS IN SHORTS . . . . .	43
		2.19. TEST YOUR LEARNING . . . . .	51



## 2.1. FAIR AND REPRESENTATIVE GLOBAL ORDER

### Why in the News?

India's External Affairs Minister urged for a fair and representative global order at the first **BIMSTEC Traditional Music Festival**.

### Why global order is not fair and representative?

- **Unequal Representation in Institutions:** P5 nations dominate UNSC with veto, sidelining others.
- **Marginalization of Global South:** Global North has **9× voting power** in IMF.
  - ➔ US holds **16.49% votes but only 4.22% of population**.
- **Ineffective Multilateralism:** Major powers bypass forums (e.g., **US exit from Paris Pact & WHO**).
- **Trade as Geopolitical Tool:** US tariffs (**25% on Indian goods**), **EU carbon tax** show imbalance.
- **Climate Change Inequities:** Developed nations caused **bulk emissions, but Global South suffers** most (e.g., 2024 Philippines heatwave).
- **Technology & Knowledge Divide:** 100 firms (**mainly US, China**) drive **40% of global R&D**, centralising power.

### Way forward for a Fair & Representative Global Order

- **Multilateral Reforms:** G4 nations (Brazil, Germany, India, Japan) **back each other's bids for UNSC** permanent seats.
- **Decolonising Multilateralism:** Voice of the **Global South Summit** highlights India's role in pushing equitable world order.
- **Implement Rio Declaration:** BRICS (**17th Summit**) called for **inclusive AI governance** and realignment of IMF quotas.
- **Bridging Digital & Tech Divide:** Promote open-source, **inclusive DPI**.
  - ➔ **India's Digital Public Infrastructure** showcased as a model for Global South.
- **Climate Justice:** Reinforce **CBDR principle**, updated for today's **climate and economic realities**.

### Conclusion

A fair global order **demands inclusive institutions, equitable finance, North–South balance**, with India as a bridging power for **justice and effectiveness**.

## 2.2. INDIA–UNITED KINGDOM (UK) COMPREHENSIVE ECONOMIC AND TRADE AGREEMENT (CETA)

### Why in the News?

India and the UK signed the **Comprehensive Economic and Trade Agreement (CETA)**, strengthening their partnership.

### More in the News

- Major developments apart from CETA:
  - ➔ **India–UK Vision 2035** will guide cooperation over the **next decade in various sectors**.
  - ➔ **Defence Industrial Roadmap** was adopted for **joint work on defence products**.

### Key Highlights of the CETA

- **Comprehensive Tariff Elimination and Market Access**
  - ➔ **Over 99% of tariff lines eliminated**, nearly India's whole trade basket.
    - ◊ India opened **89.5% of tariff lines, covering 91% of UK exports**.
  - ➔ **Sensitive sectors** (dairy, cereals, gold, jewellery, etc.) protected.
  - ➔ **Bilateral safeguards** to prevent harmful import surges.
- **Services: Wider access** for Indian IT, finance, education, healthcare.
- **Mutual Recognition and Professional Mobility**
  - ➔ **Professional qualifications** (nursing, accountancy, architecture) to be mutually recognised within a year.

- ➔ UK allows Indian professionals, investors **stays from 90 days up to 3 years.**
- ➔ **Double Contribution Convention exempts Indian workers** and employers from UK social security for 3 years.
- ➔ **Exporters may self-certify product origin**; small consignments under £1,000 need no documents; rules align with India's supply chains.

### India-UK Vision 2035 (Strategic Partnership Roadmap)

- **Strategic Vision by 2035:** Partnerships will transform India-UK relations, focusing on strategic goals, innovation, and real benefits.
- **Partnership Framework: Cooperation on six pillars** (Trade - Technology - Defence - Climate - Education - People-to-People Ties).
- **Growth and Trade:** Raise trade volumes, Complete Bilateral Investment Treaty, Improve capital market links, Boost green investments, innovation Support startups.
- **Technology Innovation:** AI/machine learning links 5G/6G telecom cooperation Work on critical minerals, semiconductors, Quantum computing, biotech research, Space, health tech.
- **Defence and Security:** 10-year Defence Roadmap, Joint defence technology, Strengthen Indo-Pacific security, Counter-terror and cyber efforts Joint training.
- **Climate and Energy:** Increase climate finance, Expand offshore wind, Develop green hydrogen, Nuclear energy cooperation, clean transport, Restore ecosystems.
- **Education and Skills Partnership:** UK campuses in India, Joint degrees, Green skills programs, More youth and cultural exchanges.

### Significance of CETA for India

- **Export growth:** Exports in textiles, jewelry, machinery expected to rise 20-40%.
- **Geographical Indication protection:** GI products like feni, toddy, Nashik wine protected.
- **Market Access:** UK's \$37.5 billion agricultural market opened; over 95% of agricultural and processed food items duty-free.
- **Worker Benefits:** Labour rights ensured, with fair tribunals and enforcement; women benefit from non-discrimination and gender equality.
- **MSME and regional growth:** Trade boost aids hubs like Tiruppur (textiles), Kolkata (leather), Surat-Bharuch (chemicals).

### Significance of India-UK Relations

- **Economic Cooperation:** Bilateral trade at **USD 56 billion**; target to double by 2030.
  - ➔ UK is 6th largest investor in India with **\$35 billion equity to Sept 2024.**
- **Geo-Political:** Cooperation in **UN, UNSC, G20, Commonwealth**, Indo-Pacific; UK supports India's UNSC permanent seat bid.
- **Defence Cooperation:** Regular exercises including **Konkan (naval), Cobra Warrior (air), Ajeya Warrior (army).**
- **Indian Diaspora:** UK hosts **1.864 million** Indians (2021 Census).
- **Education cooperation:** UK universities **opening Indian campuses**; **Southampton's Gurugram campus** first under New Education Policy. About **170,000 Indian students** study in UK.
- **Health Cooperation:** **Joint COVID-19 vaccine R&D** (AstraZeneca and Serum Institute); India-UK agreement supports healthcare **workforce recruitment and training.**

### Concerns in India-UK Relations

- **Divergent Foreign Policy Positions:** Differing views on the Russia-Ukraine conflict.
- **UK's Domestic Politics:** UK debates on Kashmir and India's internal issues cause friction, affecting diaspora ties.
- **Khalistan Separatism:** India worries about pro-Khalistan activities in the UK threatening its sovereignty.
- **Extradition hurdles:** Legal delays keep fugitives like Vijay Mallya in the UK, straining trust.

### Conclusion

The CETA, under India-UK Vision 2035, is a key milestone boosting trade, technology, defence, climate, and education ties. With the **UK as a P5, G7, Five Eyes member and India as fastest-growing major economy**, both **are at a strategic inflection point**. Leveraging synergies **amid global volatility, they aim to elevate partnership and tackle challenges.**

## 2.3. INDIA-MALDIVES RELATIONS

### Why in the News?

Indian Prime Minister's visit to Maldives marked **60 years of diplomatic ties**.

### Key outcomes of the visits

- Extension of **INR 4,850 crores Line of Credit to Maldives** and **reduced debt repayment** on India-funded LoCs.
- Launch of **India-Maldives Free Trade Agreement** negotiations with agreed Terms of Reference.
- Agreement to **launch UPI in Maldives** between **NPCI International Payment Limited** and Maldives Monetary Authority.
- MoUs signed on **Fisheries & Aquaculture, Digital Solutions**, and Indian Pharmacopoeia recognition.

### Areas of Cooperation

India and Maldives share **ethnic, linguistic, cultural, religious, and commercial bonds**. India was one of the first to **recognize Maldives after its 1965 independence** and set up diplomatic ties.

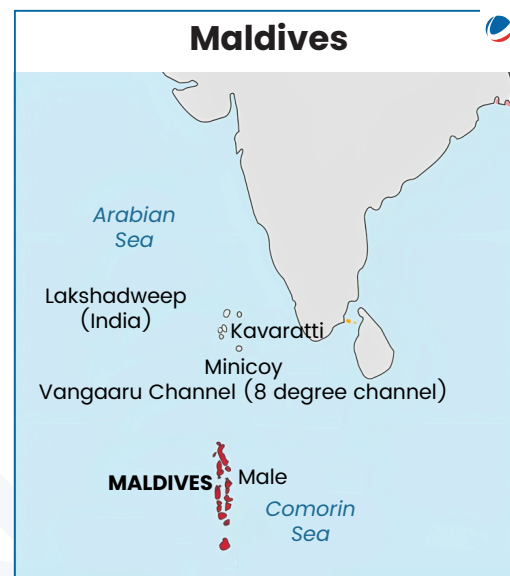
- **Strategic Location and Proximity:** Maldives sits like a **'toll gate'** between the **western Indian Ocean (Gulf of Aden, Strait of Hormuz)** and **eastern Indian Ocean (Strait of Malacca)**.
  - ➔ Its closeness to **India's west coast and key Indian Ocean sea-lanes** gives Maldives strategic value for India.
- **Net Security Provider:** India is seen as Maldives' **net security provider**, central to India's **"Neighbourhood First"** policy and Vision MAHASAGAR for **Indian Ocean Region** security and growth.
- **Defence Cooperation and Security:** A 2016 Action Plan cements **defence ties; joint exercises include Ekuverin, Ekatha**.
  - ➔ Maldives is a **founding member** of the Colombo Security Conclave.
- **Economic Integration:** Bilateral trade hit USD 548.97 million (2023), **with India as Maldives' largest trading partner**.
- **Humanitarian Diplomacy and "First Responder":** India has been Maldives' **prompt aid provider during crises like the 1988 coup attempt, 2004 tsunami, 2014 water crisis, and COVID-19**.
- **Extensive P2P Linkages:** India is a **top tourist source**, with over 2.09 lakh Indian arrivals in 2023.

### Recent Irritants in the bilateral relations

- **Domestic Politics:** Maldives' politics is split between Anti-India and Pro-India/China camps.
- **Strategic Shift under President Muizzu:** Elected with an **"India out" nationalist campaign**, sparking anti-India actions like survey cancellations and military withdrawal.
  - ➔ Policy moved from **"India first" to "Maldives first"** to diversify foreign ties.
- **China Factor:** Joined China's **BRI in 2014**; China funded key projects like the **Friendship Bridge**.
- **Economic Instability:** Public debt may hit **135.7% of GDP by 2027** with fiscal deficits and slower growth (World Bank).
- **Radicalization:** US listed **ISIS and Al Qaeda** facilitators in Maldives in 2023.

### Conclusion

India and Maldives share **Indian Ocean challenges impacting security and development**; they must cooperate closely for their and the region's benefit.



## 2.4. INDIA AND SHANGHAI COOPERATION ORGANIZATION (SCO)

### Why in the News?

Recently, India has **refused** to sign a **joint declaration** at the **Shanghai Cooperation Organisation (SCO) Defence Ministers' meeting** in Qingdao, China.

### Why did India refused to sign a Joint Declaration?

- **Double Standard for Terrorism:** The document ignored the Pahalgam attack but mentioned Balochistan, reflecting selective concern over terrorism.
- **Non-Negotiable Core Principles:** India reiterated that peace and terrorism cannot coexist—a principle it upholds firmly in all multilateral engagements.

### India's Strategic Opportunities within the SCO Framework

- **Central Asia Outreach:** Strengthens ties with CARs, aligns with Connect Central Asia Policy.
- **Energy Security:** Taps uranium from Kazakhstan.
- **Connectivity Boost: Supports** International North-South Transport Corridor (INSTC).
- **Diplomatic Channel:** Engages China and Pakistan.

### What are India's concerns regarding SCO?

- **China's Dominance:** China attempts to steer SCO for its own strategic goals like BRI
- **Expansion Challenge:** New members like Belarus dilute Central Asian focus.
- **Weak Implementation:** Lacks executive authority, remains mostly declarative.
- **Anti-West Image:** Perceived as anti-West amid China-Russia-Iran tensions.

### How India balances Strategic Autonomy with multilateral engagement in the SCO?

- **National Interest First:** Opposed China's BRI.
- **Principled Participation:** Active in Regional Anti-Terrorist Structure (RATS)
- **Development Focus: e.g.** SCO Sub-Group on Cooperation in **Traditional Medicine and Startups and Innovation.**
- **Leveraging close Relationship with Russia:** E.g. India and Russia cooperate on **core agenda items in the SCO.**

### Role of SCO in Reshaping Global Multilateral Order

- **Strategic Presence:** Covers 80% of Eurasia, 42% of global population.
- **Economic Strength:** Contributes 25% to global GDP.
- **Challenging West:** Emerging alternative to Western-led forums.
- **Security Role:** Formed Afghanistan Contact Group (ACG) in 2005 to engage Afghanistan.

### Conclusion

India strategically **engages with SCO for Central Asian outreach while maintaining cautious distance** from China's influence to preserve its core principles.

## 2.5. CHINA-LED TRILATERAL NEXUS

### Why in the News?

**China, Pakistan, and Bangladesh** recently held their **first-ever trilateral meeting** on the sidelines of the 6th China-South Asia Cooperation Forum.

### More on the News

- This marks China's **second trilateral initiative** in India's immediate neighbourhood, following a similar engagement with Pakistan and Afghanistan.
- Multiple analyses point towards the emergence of a **strategic nexus** involving China, Turkey, and Pakistan, as evidenced by their coordinated responses during the **Pahalgam crisis.**
- These engagements challenge **India's traditional influence** as **China creates an arc of strategic influence** from **Afghanistan to Bay of Bengal.**

### Rising China's Influence in South Asia

- **Pakistan:** Pakistan is dependent on China **for majority of its defence import.**
- **Maldives:** China-Maldives Friendship Bridge and housing projects.
- **Sri Lanka:** China developed the **Hambantota Port** and leased it for 99 years.
- **Bangladesh:** China is Bangladesh's biggest defence supplier.



- **Nepal:** E.g., Pokhara International Airport and proposed trans-Himalayan connectivity projects.

### Factors facilitating these Trilateral Engagements

- **Historical:** Both Pakistan and China share longstanding **border disputes** with India.
- **China's Assertive Regional Policy:** Actively expanding geopolitical footprint in **South Asia to achieve regional dominance**.
- **Strategic Balancing against India:** Countries like Bangladesh **leverage ties with China** to counter India's regional influence.
- **Infrastructure Diplomacy:** China is offering faster and **larger infrastructure funding to India's neighbours**.

### Concerns / Implications for India from Rising China's Influence

- **Geostrategic Encirclement:** China has already established a presence at strategic ports under the **'String of Pearls' Strategy**.
- **Undermining India led Regional Platforms:** This could undermine the influence of India-backed groups such as **BIMSTEC**.
- **Diminishing Regional Influence:** Bangladesh expressed interest in involving China in the **Teesta River project**.
- **India's Connectivity Initiatives:** Promotion of BRI Projects may impact India-led alternatives such as the **BBIN initiative** and the **IMEC**.

### Strategy to be adopted by India

- **Counterbalance through Strategic Partnerships:** Enhance cooperation with like-minded nations like Japan and US through **QUAD**.
- **Implementation of developmental projects:** Set up dedicated MEA cell for coordinating projects with neighbours.
- **Development Fund:** Establish **regional development fund** for connectivity infrastructure under BIMSTEC.
- **Engagement through RIC:** Revive **RIC** framework with China and Russia initiated in late 1990s.

### Conclusion

The trilateral meeting marks significant South Asian geopolitical development requiring India's **proactive, balanced foreign policy** to retain regional influence

## 2.6. CHINA'S HYDROPOWER PROJECT ON THE BRAHMAPUTRA RIVER

### Why in the News?

China began building the **Medog mega dam on the Yarlung Zangbo (Brahmaputra) River in Tibet**.

### More on the News

- Besides power, **it aims to industrialize Tibet**.
- China calls it **a renewable energy project and an economic boost for Tibet**, supporting carbon neutrality by 2060.

### About the Medog Hydropower Project

- **Scale and Capacity:** Will surpass **Three Gorges Dam**, generating three times more energy.
- **Location:** At the Great Bend of **Yarlung Tsangpo River**, near Arunachal Pradesh border.
- **Project design:** A **run-of-the-river type** with five cascade plants, diverting half the river's flow.

### Key Concerns of the Project

- **Geopolitical Concerns:** Water flow disruption **threatens Northeast India's agriculture, food security**, and hydro projects (e.g., 2000 Siang River disaster).
  - ➔ Security risks as a **potential water weapon in conflicts**.



- **Water Resource Competition:** Brahmaputra basin faces contest among **India, China, and Bangladesh** over dams and diversion, risking regional stability.
- **Environmental Impact:** Sediment **flow disruption harms Ganges-Brahmaputra** Delta, threatens **218 fish species**, including Hilsa and Mahseer, risking two million livelihoods.
- **Disaster Vulnerability:** **Located in Seismic Zone V**, prone to earthquakes and landslides.
  - ➔ **Dec 2024's 7.5 quake** in Tibet highlights dam failure risks.

### Existing River Water Cooperation Mechanism between India and China

- **Expert Level Mechanism (2006):** Annual talks on flood data, emergencies, and trans-border river issues.
- **Brahmaputra Data Sharing:** MoU for June–October data from three Tibetan stations; expired in June 2020, renewal pending.
- **Sutlej Data Sharing:** MoU for June–October data from one station; expired 2020, renewal pending.
- **Umbrella MoU (2013):** Extended data sharing to May 15–October 15, broadening cooperation.

### Way Forward

- **India's Potential Response:**
  - ➔ **Strategic countermeasures:** **Plan Siang Upper Multipurpose hydropower** project in Arunachal Pradesh, proposed by **Niti Aayog in 2017**.
  - ➔ **Transparency Demands:** Demand full disclosure of **technical, environmental, seismic plans**; press for suspension until resolved.
- **Regional Coalition:** Unite downstream nations for **binding water-sharing under 1997 UN Water Convention** with data sharing and joint assessments.
- **Transboundary Cooperation:** Advocate for agreements like **China-Kazakhstan's to protect India's co-riparian rights**.
- **Water Security Framework:** Consider South Asia Water **NATO for Brahmaputra, Indus, Ganges to ensure data transparency**, dispute resolution, and disaster readiness, using Nile Basin and Mekong models.

## 2.7. INDIA'S STRATEGY IN INDIAN OCEAN

### Why in the News?

Parliamentary Committee on External Affairs tabled report in Lok Sabha on '**Evaluation of India's Indian Ocean Strategy**'.

### Why Indian Ocean matters?

- **3rd-largest ocean**, home to **1/3rd of global population**.
- **Vital trade hub:** 2/3rd of global oil shipments transit here.
- **India's lifeline:** 90% trade volume & nearly all oil imports move via IOR.
- **Strategic assets:** India holds 2.4 million sq. km EEZ in the region.

### India's Strategy in the Indian Ocean

- **Policies:** 'Neighbourhood First', **SAGAR (Security & Growth for All in Region)** and **MAHASAGAR (2025) doctrine**.
- **Net Security Provider:** Counter-piracy ops, **anti-IUU fishing, maritime terrorism** control, EEZ surveillance, IFC-IOR information sharing.
- **Engagement with Littoral States:** Bilateral ties with **Mauritius, Maldives, Sri Lanka, Seychelles via development aid**, HADR, defence & capacity building.
- **Regional Leadership:** Active in **IORA, IOC and other multilateral forums**.
- **Infrastructure & Connectivity:** Port investments (**Chabahar, Sri Lanka, Mauritius, Seychelles**); **Sagarmala 2.0 to boost maritime competitiveness**.
- **Humanitarian Assistance and Disaster Relief:** Reliable first responder (e.g., **Operation Sadbhav for Myanmar, Laos, Vietnam after Typhoon Yagi**).

### MAHASAGAR focuses on

- **Maritime Leadership:** Promote India's leadership in **IOR as Net Security Provider & First Responder**.
- **Maritime Capabilities:** By expanding scope of **our engagement and other activities**.

- **Global South: Strengthen maritime security ties** with Global South beyond IOR.
- **Operational Effectiveness:** Enhance effectiveness via **joint training, best practices & advanced technologies**.
- **Maritime Security Framework:** Formulate **responsive and resilient maritime** security framework.

### Important Multilateral Platforms in the IORA

- **Indian Ocean Rim Association (IORA):** 23-member regional grouping on economy, safety, environment.
- **Indian Ocean Naval Symposium (IONS) (2008):** Naval cooperation among littoral states.
- **Indo-Pacific Oceans Initiative (IPOI) (2019):** Open initiative for maritime management & security.
- **QUAD:** Covers maritime security, HADR, connectivity, tech & supply chains.
- **BIMSTEC:** India leads Security pillar (counterterrorism, disaster mgmt, energy).
- **Indian Ocean Commission (IOC):** Works on economy, environment, maritime security; India = Observer.

### Challenges and Threats to the Indian Strategy

- **Geopolitical:** China's port/infrastructure presence; island states hedging.
- **Maritime Security:** Piracy, terrorism, IUU fishing, trafficking, smuggling.
- **Infra Gaps:** Limited capacity in partners (Sri Lanka, Maldives, Mauritius, Seychelles).

### Way Forward

- **Comprehensive Plan:** Covering 35 littorals states with focus on security, infra, climate, defence.
- **Better Execution:** Inter-Ministerial Task Force for coordination.
- **Unified Strategy:** Integrate IOR and Indo-Pacific, leverage Quad, IORA, ASEAN.
- **Green MAHASAGAR:** Sustainability as well as Blue Economy.
- **Maritime Strength:** Use of AI/satellite in marine domain awareness; stronger Navy under Aatmanirbhar Bharat.
- **Cultural Diplomacy:** Expand cultural centres & heritage outreach.

### Conclusion

India's IOR policy aims at **security, cooperation, prosperity, keeping the ocean free, open, inclusive, aligned with UNCLOS principles**.

## 2.8. ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN) CENTRALITY

### Why in the News?

ASEAN's centrality under strain due to **great-power rivalry, trade tensions, and shifting Indo-Pacific order, requiring reforms & deeper partnerships**.

### About ASEAN

- **Genesis (1967):** Formed in Bangkok via **ASEAN Declaration**.
- **Aims: Economic & cultural progress;** peace, stability, rule of law; cooperation in trade, education, agriculture, industry.
- **Secretariat:** Jakarta, Indonesia.
- **Members:** 10 nations; **founders:** Indonesia, Malaysia, Philippines, Singapore, Thailand.
- **ASEAN Summit:** Apex policy body **with Heads of State/Government**.
- **Charter (Art. 1.15):** Core aim is to uphold **ASEAN centrality** in regional partnerships.



### Relevance of ASEAN Centrality in the Region

- **Security & Stability:** ASEAN Regional Forum (ARF), ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus) enable **defence, maritime, security dialogue** with external powers.
- **Economic Integration:** RCEP deepens **Asia-Pacific trade** networks under **ASEAN leadership**.

- **Norm-Building:** Treaty of Amity and Cooperation (TAC) evolved into key framework with signatories incl. **US, China, Russia.**

### Threats to ASEAN Centrality

- **Great-Power Rivalry:** US–China tensions (**e.g., BRI vs Indo-Pacific Strategy**) risk weakening ASEAN unity.
- **Trade Strain:** US tariffs disrupt ASEAN-dependent **trade flows.**
- **Overlapping Architectures:** **QUAD & AUKUS** overshadow ASEAN-led security forums.
- **Internal Divisions:** Differing member stances on China (**Vietnam vs Cambodia/Laos**).
- **Credibility Crisis:** Weak on Myanmar “**Five-Point Consensus**,” external powers filling vacuum.
- **Institutional Weakness:** Resource-poor Secretariat limits **ASEAN’s impact.**

### Way-forward to Strengthen ASEAN Centrality

- **Upgrade via Vision 2045** and Strategic Plans (Political–Security, Economic 2026–30).
- **Cooperate with like-minded partners** (e.g., EU FTAs, Indo-Pacific presence).
- Formally **consults with QUAD** to connect minilateral and ASEAN processes.
- **Closer partnership with India** to boost trade, diversification, stability.

### How can India deal with shift of ASEAN Centrality?

- **Synchronize efforts:** Align India’s Indo-Pacific Oceans Initiative (IPOI) with ASEAN’s ASEAN Outlook on Indo-Pacific (AOIP), focusing on maritime security, disaster response, blue economy.
- **Explore synergies:** Use sub-regional groups like IORA, BIMSTEC, IMT–GT.
- **Review ASEAN–India Trade in Goods Agreement (AITIGA):** Simplify ASEAN–India Trade Agreement for easier trade.
- **Implement Tourism Work Plan:** Deepen cooperation (2023–27) in tourism education, training, research.

### Conclusion

ASEAN must **reassert centrality** with member **unity** against **external strategic pressures.**

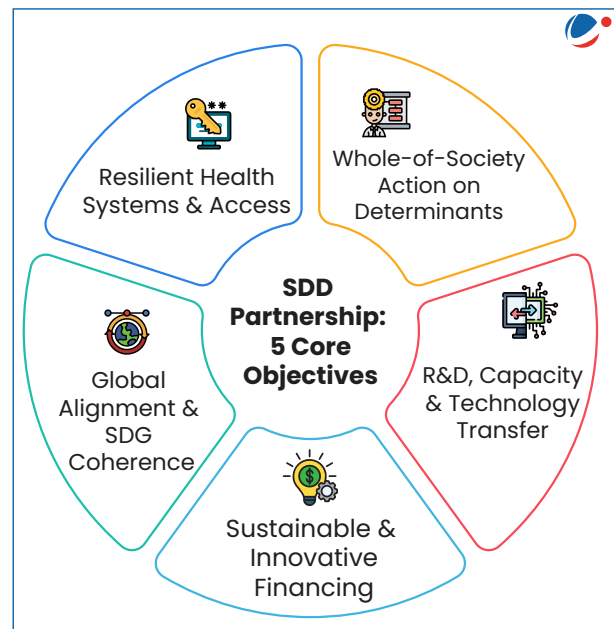
## 2.9. BRICS RIO DE JANEIRO DECLARATION

### Why in the News?

At the 17th BRICS Summit, leaders signed the **Rio Declaration on strengthening Global South cooperation for inclusive, sustainable governance.**

### Key Highlights of the BRICS Summit

- **Participation:** First summit with **11 full members, 10 partners, 8 invited nations**, and many international reps.
  - ➔ Welcomed **Indonesia as member**, Belarus, Bolivia, Kazakhstan, Cuba, Nigeria, Malaysia, Thailand, Vietnam, Uganda, Uzbekistan as partners.
- **Launch of Partnership for Elimination of Socially Determined Diseases (SDDs):** To boost **cooperation and resources to eliminate SDDs** linked to poverty and inequality in the Global South.
- **BRICS Leaders’ Framework on Climate Finance:** Roadmap for five years **to enhance climate change resource mobilization.**
- **BRICS Leaders’ Declaration on Global AI Governance:** Principles on **digital sovereignty, UN multilateralism, responsible AI development, fair competition, data fairness**, environmental sustainability, and ethical AI.





### BRICS Leaders' Framework Declaration on Climate Finance

- **Climate finance goal:** Calls on developed countries to provide **USD 300 billion yearly by 2035** to developing nations, meeting USD 100 billion yearly target through 2025.
- **Innovative financial instruments:** Supports blended **finance, guarantees, insurance, thematic bonds, forex risk mitigation**, and regulatory incentives.
- **Tropical Forest Forever Fund (TFFF):** Recognized as a **mechanism to fund tropical forest conservation, launched at COP28 UAE**.
  - ➔ Aims for **large-scale, predictable payments** combining public and private funds, targeting USD 4 billion annually.
  - ➔ Payments based on **each country's preserved tropical forest area**.

### BRICS and Global South Cooperation

- Rio de Janeiro Declaration **underscores BRICS' commitment to the Global South**.
  - ➔ **Strengthen Global Governance:** Calls for more **developing countries' roles in global decisions**, transparent UN leader selection, and UN reforms supporting Brazil and India.
  - ➔ **Multipolarity and Global South:** Highlights **Global South's role amid geopolitical tensions**, economic slowdown, tech change, and protectionism.
  - ➔ **Bretton Woods Institutions Reform:** Urges governance **reforms with merit-based, inclusive selection** and diversity.
  - ➔ **Trading System:** Warns against **unilateral tariffs; supports fair, open, consensus-based WTO** trade system.
  - ➔ **International Economic Cooperation:** Pushes for **BRICS Economic Partnership 2030** and **BRICS Multilateral Guarantees** pilot to reduce investment risk.

### Conclusion

Rio declaration commits **BRICS to tackle global issues** and build **a multipolar world based on equity, cooperation, and shared prosperity**, shaping global governance's future.

## 2.10. INDIA LATIN AMERICAN AND CARIBBEAN COUNTRIES TIES

### Why in the News?

The Prime Minister recently visited **Trinidad and Tobago, Argentina, Brazil**, and attended the 17th BRICS Summit in Rio.

### More on the News

- Received **Order of the Republic of Trinidad & Tobago**.
- Announced extension of **OCI cards to sixth-generation diaspora** in Trinidad & Tobago.

### Significance of Latin America and Caribbean (LAC)-India Relations

- **Strategic:**
  - ➔ **Defence Cooperation:** India and Brazil enhanced ties via Joint **Defence Committee and 2+2 dialogue**.
  - ➔ **Critical Minerals:** **KABIL** agreed with **CAMYEN** for lithium blocks in Argentina; Lithium Triangle holds 75% global reserves.
  - ➔ **Food Security:** Latin America supplies **edible oils and pulses**; Argentina is a key soybean oil source.
- **Economic & Trade Relations:**
  - ➔ **Trade and Investments:**
    - ❖ Trade reached **USD 35.73 billion in 2023-24**; **Indian firms invested USD 12 billion** in IT, **pharma, energy, mining, manufacturing, and agro-chemicals**.
    - ❖ India has a **Preferential Trade Agreement with MERCOSUR**.
  - ➔ **Energy Security:**
    - ❖ Crude oil from **Venezuela, Mexico, and Brazil** makes up **30% of India's regional imports**.



- ◇ India extended US\$140 million **Line of Credit to CARICOM** for solar and climate projects.

#### ➤ **Cooperation at Regional and Multilateral Fora:**

- ➔ Collaborates in **G20, BRICS, IBSA, G4** with Argentina and Brazil.
- ➔ Engages with **Community of Latin American and Caribbean States (CELAC), CARICOM, and Central American Integration System (SICA).**

#### **About MERCOSUR**

- **Overview:** It is a **Southern Common Market** (MERCOSUR for its Spanish initials) in Latin America.
- **Genesis:** Formed in 1991 with the objective of free movement of goods, services, capital and people.
- **State parties:** Argentina, Bolivia, Brazil, Paraguay, Uruguay. (Venezuela is currently suspended)
- **Associate Members:** Chile, Colombia, Ecuador, Guyana, Panama, Peru, Surinam
- **Headquarter:** Montevideo, Uruguay

#### **Challenges**

- China has **strong Latin America ties**; trade grew 35 times since 2000.
- MERCOSUR faces **internal splits**; Brazil and Uruguay seek bilateral deals, Argentina may exit.
- High transport costs **due to distance limit engagement.**
- Latin America is a **low priority** in India's foreign policy.
- Language barriers and **weak diaspora presence.**

#### **Way Forward**

- **Prioritize political dialogues**, make Latin America a foreign policy focus.
- Strengthen economic ties via tariff cuts, **regulations, and free trade deals.**
- Improve connectivity with **direct shipping, air links**, and freight corridors.
- Expand tech collaboration in **renewables, agriculture, IT, and climate resilience.**
- Mobilize private sector **through trade missions and incentives.**

#### **Conclusion**

India can deepen **Latin America ties with a proactive strategy** addressing trade, investment, culture, and logistics, building a strong partnership based on **shared values and development goals.**

### **2.10.1. India-Brazil**

#### **Why in the News?**

Indian PM received Brazil's highest **civilian award, the Grand Collar of the National Order of the Southern Cross.**

#### **Key Agreements signed during visit**

- Cooperation on **terrorism and transnational crime.**
- **MoU on digital solutions** exchange for transformation.
- Exchange and protection of **classified information.**
- MoU on **renewable energy, agriculture, and intellectual property.**
- **Created a ministerial mechanism** for trade and investment monitoring.

**Priority Pillars for the Next Decade:** Defence and Security, food and nutritional security, energy transition and climate change, etc.

#### **About India-Brazil Relations**

- **Bilateral Cooperation:** Strategic Partnership from 2006.
- **Global Cooperation:** Engage actively in plurilateral fora (BRICS, BASIC, G-20, G-4, IBSA) and multilateral bodies (UN, WTO, UNESCO, WIPO).
- **Trade:** In 2024-25, bilateral trade reached USD 12.20 billion with India in trade surplus.
- **Defence Cooperation:** 2006 agreement established Joint Defence Committee (JDC).
- **Renewable Energy:** Brazil co-founded Global Biofuel Alliance and ratified ISA Agreement in 2022.

## 2.11. INDIA–AFRICA RELATIONS

### Why in the News?

The Prime Minister visited Ghana and Namibia, stating “Africa’s goals are India’s priority.”

### More on the News

- He also received national honor – **Officer of the Order of the Star of Ghana**.
- Both agreed to **upgrade to Comprehensive Partnership**.
- India’s Africa policy builds on old ties, **focuses on current needs, using a consultative, demand-driven approach** under Kampala Principles from 2018.

### Strategic significance of Africa for India

- **Strategic and Geopolitical:** Africa partners with India on global south issues, **UN/WTO reforms, and peace**.
  - ➔ **Example:** African Union’s G20 membership and **Asia–Africa Growth Corridor** launched in 2017.
- **Defence:** India and Africa engage through Indian Ocean groups and exercises like **MILAN** and **Cutlass Express**.
  - ➔ Indian Navy started **Africa India Key Maritime Engagement**.
- **Economic:** Africa offers young markets and key minerals (**cobalt, manganese**) vital for India.
  - ➔ Africa holds nearly **half of global cobalt and manganese**.
  - ➔ India is Africa’s **third-largest trading partner**.
- **Trade Basket:** India exports **fuels, food, meds**; imports oil, diamonds, copper.
- **Market Access:** India provides **duty-free access to Least Developed Countries** via its tariff scheme.
- **India’s Soft Power:** Technical cooperation, scholarships, and **tele-education/medicine** reach many African nations.
- **Technology:** India shares digital tech like **UPI and RuPay, launched in Mauritius**.
- **Energy Security:** Africa has huge renewable potential; **International Solar Alliance** helps solar projects.

### Concerns in India–Africa relations

- **Project delays** due to procedural, funding, and logistical issues.
- Africa **lacks permanent UN Security Council representation**.
- India faces **competition from China’s** faster, larger investments.
- **Security risks** from political unrest and terrorism threaten Indian interests.

### Conclusion

Africa remains central to **India’s foreign policy**. India aims for sustainable **South–South cooperation** through **capacity-building, local ownership, and moral diplomacy**.

## 2.12. ECONOMIC COMMUNITY OF WEST AFRICAN STATES (ECOWAS)

### Why in the News?

ECOWAS marked its 50th anniversary this year.

#### About ECOWAS

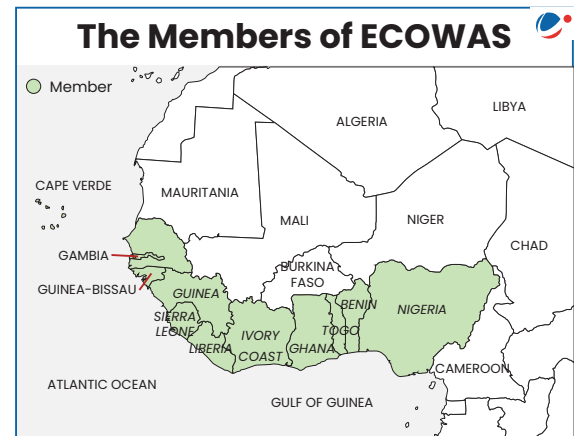
- **Established:** Established on **28 May 1975** by **15 West African countries** through the **Treaty of Lagos**.
- **Headquarter:** **Abuja, Nigeria**.
- **Regional Bloc:** ECOWAS comprises **12 West African countries** (June 2025). Its member countries include **Benin, Cabo Verde, Côte d’Ivoire, The Gambia, Ghana, Guinea, Guinea–Bissau, Liberia, Nigeria, Senegal, Sierra Leone, and Togo**.
- **Aim:** To promote cooperation and integration for an **economic union in West Africa**. ECOWAS established its **free trade area in 1990** and adopted a **common external tariff in January 2015**.

## India-ECOWAS Relations

- **Diplomatic Relations:** India became an **Observer** to ECOWAS in **2004**. ECOWAS supports India's bid for **permanent UN Security Council** membership.
- **South-South Cooperation:** India supports regional development of western Africa through **MoU between ECOWAS Centre for Renewable Energy and Energy Efficiency and India's International Solar Alliance (ISA)**.
- **Economic Cooperation:** In **2006**, India gave the grouping a **line of credit (LoC) worth USD 250 million** to supplement **Focus Africa Programme** launched from **2002-03**.

## Conclusion

As ECOWAS enters its **sixth decade**, it faces a **historic crossroads** where **internal fragmentation, political instability, and citizen disconnect** threaten its future despite its commendable legacy of **integration, peacekeeping, and human development**.



## 2.13. GROUP OF SEVEN (G7)

### Why in the News?

India participated as an **Outreach Country** in **51st G7 Summit (2025)** held in **Kananaskis, Canada**.

### More on the news

- On the sidelines, **India-Canada** revived bilateral relations by deciding on early return of **High Commissioners** and resuming negotiations on **Early Progress Trade Agreement (EPTA)**.
- **Key Outcomes** of 51st G7 Summit (2025):
  - ➔ **Kananaskis Wildfire Charter:** Adopted **"whole of society"** approach including **Indigenous knowledge** and sustainable forest management.
  - ➔ **G7 Critical Minerals Action Plan:** Secure sustainable supply chains for **critical minerals**.
  - ➔ **AI Initiatives:** G7 GovAI Grand Challenge and shared **G7 AI Network (GAIN)**.
- **Global Security and Conflict Response**
  - ➔ **Ukraine crisis:** G7 imposed sanctions on Russia and aided Ukraine using frozen Russian assets.
  - ➔ **China Policy:** Condemned Taiwan coercion, dropped 'One China' reference, launched PGII to counter BRI
- **Influences agendas at international institutions:** Like the **UN, IMF, and World Bank**.
  - ➔ **Tax Governance:** Supports the **OECD/G20 Inclusive Framework** to ensure fair global tax rules.
  - ➔ **Anti-Money Laundering:** The **Financial Action Task Force (FATF)** was established in **1989** to **combat money laundering**.
- **Sustainable and Digital Governance:** **Global Partnership on Artificial Intelligence (GPAI)** and **Hiroshima AI Process** promoting ethical AI and cybersecurity. The **G7 Climate Club** promotes **net-zero by 2050**.
- **Engagement with the Global South:** Through outreach to non-members like **India, South Africa, Brazil**.
- **Acts as a "club of democracies":** Core alliance championing **'rules-based international order'** and serving as **collective counterweight** to authoritarian countries like **China and Russia**.

### About Group of Seven (G7)

- **Genesis:** 1975 in response to **energy crisis** for economic cooperation.
- An informal bloc of **industrialized democracies:** France, Germany, Italy, UK, Japan, US, and Canada.
  - ➔ **Russia** was member 1998-2014 (called **G8**) until **Crimea annexation** led to suspension.
- **Purpose:** Annual meetings on global issues like **economic governance, international security, and energy policy**.

### Hurdles for the G7

- **Declining Economic Dominance:** G7's global GDP share fell from **~70% (1980s)** to **~44% (2021)** while **emerging economies** drive growth.
- **Consensus-Based Decisions:** Obstruct decisive action, e.g., 51st G7 failed strong **Ukraine statement** after **US resistance**.
- **Lack of Legal Authority:** Informal forum without **permanent secretariat** or **binding framework** limits enforceability.



- **Global South Underrepresentation:** Absence of major powers like **India, Brazil, Indonesia** and **African Union**.
- **Alternative Blocs Competition:** **BRICS Plus** offers better representation alternative.

### India's Strategic Interests at the G7

- **Strategic Balancing:** Positions as bridge between **industrialized West** and **Global South**.
- **Economic Cooperation:** Strong proponent of **G7's PGII** for infrastructure investment in developing countries.
- **Democratic Credentials:** India's democracy and **4th largest economy** status make its voice influential.
- **Bilateral Platform:** Venue for talks like **Indian PM-Canadian PM** meeting to reset relations.

### Conclusion

G7 countries need more inclusive agendas relevant to today's world order, **presenting India with opportunities to advocate for fairer decision-making and bridge the divide between the Global South and industrialized nations.**

## 2.14. GEELONG TREATY UNDER AUKUS

### Why in the News?

Australia and the UK recently signed the **Geelong treaty under AUKUS Pillar I** for 50 years of **defence cooperation**.

### About Geelong Treaty

- Also called **Nuclear-Powered Submarine Partnership Treaty**, it supports security in Euro-Atlantic and Indo-Pacific.
- **Objective:** Cooperate on design, build, operation, sustainment, disposal of SSN-AUKUS submarines and develop strong trilateral supply chains.
- Complies with nuclear **non-proliferation and AUKUS Naval Nuclear Propulsion Agreement**.

### About AUKUS

- Established 2021, a security partnership between **Australia, UK, and US**.
- **It has Two Pillars:**
  - ➔ **Pillar 1:** Develop shipbuilding, including Australia's **first nuclear-powered attack submarines (SSNs)**.
  - ➔ **Pillar 2:** Joint development of **eight advanced military capabilities** like **AI, autonomy, electromagnetic warfare, modelling, simulation**.
- US will sell **submarines to Australia in 2030s**; UK and Australia to **co-produce submarines by early 2040s**.
- **Strategic Significance of AUKUS**
  - ➔ **Strengthens US-led alliance** in Indo-Pacific to counter China and show US commitment.
  - ➔ **Enhances US military presence** and access in Southeast Asia.
  - ➔ **Boosts US defence industry** via arms sales and tech transfers to Australia and UK.

### Opportunities and Challenges of AUKUS

Opportunities of AUKUS	Concerns with respect to AUKUS
<ul style="list-style-type: none"> <li>➤ <b>High trust among AUKUS nations</b>, shown by Five Eyes intelligence sharing.</li> <li>➤ <b>Complements QUAD</b> by focusing on hard power in Indo-Pacific.</li> <li>➤ <b>Synergy between UK and Australia</b> aligns with their defence strategies.</li> <li>➤ US shifts <b>regional security to boosting partners</b> amid China challenge.</li> <li>➤ Nuclear submarines offer <b>faster response (~20 knots) and longer endurance</b> than conventional.</li> </ul>	<ul style="list-style-type: none"> <li>➤ USA reviewing AUKUS; <b>expects Australia to increase defence spending</b> for greater burden-sharing.</li> <li>➤ AUKUS may undermine <b>QUAD's relevance</b>; <b>India's reluctance</b> often seen as <b>limiting Quad's military potential</b>.</li> <li>➤ <b>No Asian members</b> in AUKUS, unlike QUAD, seen as Western-dominated.</li> <li>➤ <b>Delivery issues:</b> US submarine production (1.13/year) below what's needed for AUKUS.</li> <li>➤ Risk of <b>nuclear proliferation and arms race</b> in the Pacific</li> </ul>

### Conclusion

India can develop unique ties **with the USA and allies to boost its national power and regional peace** contribution.

## 2.15. WORLD TRADE ORGANIZATION (WTO) REFORMS

### Why in the News?

Recently, India called for reforms to the WTO during a **high-level mini-ministerial meeting** in Paris ahead of **14<sup>th</sup> Ministerial Conference** in **Cameroon, 2026**.



### About WTO



#### Genesis:

- 1995 post the **Marrakesh Agreement**.
- Successor to the **General Agreement on Tariffs and Trade (GATT)**.
- **1986-94 Uruguay Round** negotiations led to **WTO's creation**.



#### Functions:

Administering Trade Agreements, Forum for trade negotiations, settling trade disputes, reviewing national trade policies.



#### Members:

166 constituting **98% of World Trade**. India is a member since 1995.



#### Decision Making:

Based on **Consensus**.

### Key WTO Agreements

#### Goods

- **Agreement:** General Agreement on Tariffs and Trade (GATT)
- **About:** Binding commitments on tariffs and quotas, especially for agricultural goods.
- **Additional details/guiding principles:**
  - ➔ Agreement on Agriculture
  - ➔ Sanitary and Phytosanitary Measures
  - ➔ Antidumping Agreement
  - ➔ TRIMs (Trade-Related Investment Measures)

#### Services

- **Agreement:** General Agreement on Trade in Services (GATS)
- **About:** Covers all internationally traded services (e.g., banking, tourism, telecom).
- **Additional details/guiding principles:**
  - ➔ Most-Favoured-Nation (MFN) treatment
  - ➔ Market access
  - ➔ National treatment

#### Intellectual Property

- **Agreement:** TRIPS (Trade-Related Aspects of Intellectual Property Rights)
- **About:** Covers copyrights, trademarks, patents, geographical indications, etc.
- **Additional details/guiding principles:**
  - ➔ National treatment
  - ➔ MFN treatment

### Key reforms demanded by India

- **India's 3-pronged reform agenda:**
  - ➔ Remove **non-tariff barriers (NTBs)** restricting market access.
  - ➔ Address caused by **non-market economies** I.
  - ➔ Revive WTO dispute settlement system.

### Other Key Priorities

- **JSIs (joint statement initiatives) (or) pluri-laterals:** Some countries want JSIs to become part of the broader multilateral system, but India opposes as it may **risk fragmenting the multilateral system**.
- **Permanent Solution for Food Stockholding:** India seeks a lasting WTO solution beyond the 2013 "peace clause" that protects subsidies under public stockholding from legal challenges.
- **Concerns on Overfishing Agreement**
  - ➔ WTO Fisheries Agreement (2022) stalled; lacks two-thirds approval.
  - ➔ India is not **part of the agreement, raising concerns like 25-year transition period** for developing countries under **Special and Differential Treatment (SDT)**.

### Other Contentious issues at WTO

- **No Objective Measures of 'Development status':** India opposes attempts to reform **SDT** while USA opposes China's developing country claims.

### ➤ Emerging Issues:

- ➔ **Regulatory Shifts:** EU's **Carbon Border Adjustment Mechanism** will impact Low-Middle-Income countries disproportionately.
- ➔ **Geopolitical Shifts:** USA-China tariff war.
- ➔ **Newer Concepts:** Data privacy, cross-border data flows, digital services taxation, climate change.

### Way Forward

- Ensuring **developing countries** have a say in decision-making processes.
- Strengthen monitoring and notification systems for **NTBs** to improve transparency.
- Develop clear rules to prevent fragmentation caused by **plurilateral agreements**.
- Explore alternative interim **dispute resolution models**.
- Address trade distortions from **state-owned enterprises** and industrial subsidies.
- Adopt guiding principles like **"Common but Differentiated Responsibilities"** to prevent unjust application of trade obligations on developing countries.

## 2.16. GIRMITIYA COMMUNITY

### Why in the News?

On his Trinidad and Tobago visit, the Prime Minister **announced plans to create a Girmitiya community database and hold regular World Girmitiya Conferences.**

### More on the News

- Extension of **OCI cards to the sixth generation** of the Indian diaspora in Trinidad and Tobago.
- Trinidad and Tobago **is the first country in the region** to adopt India's **Unified Payments Interface (UPI)**.

### About Girmitiyas

- Girmitiyas were Indian **indentured labourers** who migrated in the **19th century after Britain's Slavery Abolition Act 1833** caused labour shortages.
  - ➔ **"Girmit"** is a mispronunciation of **"Agreement,"** the migration contract.
  - ➔ They worked on **sugar plantations, tea gardens, and many settled in colonies.**
- **Distribution:** Mauritius, Fiji, West Indies, South Africa, Caribbean (mainly Trinidad and Tobago, Guyana, Suriname, and Jamaica).
- **Source Regions:** Mostly eastern **United Provinces and Bihar.**
  - ➔ Motivated by **poverty, unemployment, poor agriculture in homeland and better colony prospects.**
  - ➔ In colonies, **workers faced poverty, lacked wages, food, and clean water.**
  - ➔ Tamils from **Madras regions went to Ceylon, Burma, and Malaysia.**

### Significance of Girmitiyas for India

- **Deep cultural ties:** Majority in Mauritius, Guyana, Trinidad and Tobago, Suriname, preserving Indian traditions locally.
  - ➔ **Festivals:** Diwali, Ramleela, Hosay celebrated.
  - ➔ **Folk Songs:** North Indian songs popular in Fiji and Surinam.
  - ➔ **Instruments:** Use of Dhanatal, dholak, harmonium, Dandatal.
  - ➔ **Language:** Hindi, Bhojpuri, Awadhi spoken widely.
- **Political:**
  - ➔ Soft power in multilateral **forums like UN, WTO.**
  - ➔ **Hold top government roles**, e.g., Prime Ministers in Mauritius and Trinidad and Tobago.
- **Economic:** Source of philanthropy, info exchange, investments, notably Mauritius accounts for 17% of India's FDI in FY 2024-25.

### Conclusion

Introducing **Girmitiyas' history in Indian schools** is vital to preserve their **culture, art, and heritage, highlighting their importance.**

## 2.17. ISRAEL-US-IRAN CONFLICT

### Why in the news?

Recently, the Israel Defense Forces (IDF) launched **"Operation Rising Lion"**, a major strike against Iranian nuclear infrastructure and ballistic missile capability.

### Key Developments of the conflict

- **Israel's strikes:** It followed a vote by the **IAEA Board of Governors** declaring Iran in breach of a 1974 agreement—the first such finding since 2006.
- **Retaliation by Iran:** It launched **'Operation True Promise 3'**.
- **Participation of United States:** It launched **"Operation Midnight Hammer"**, targeting 3 Iranian nuclear facilities— **Natanz, Isfahan & Fordow**.
- **India's response:** Urged both sides to avoid escalatory steps and return to diplomacy.

### About 'Barak Magen' or 'Lightning Shield'

- Special version of **Barak MX missile defence system**, built to protect navy ships from various aerial threats like drones.
- Complements Israel's existing systems— **Iron Dome, David's Sling, Arrow**, plus future laser Iron Beam.

### Implications of the Iran-Israel-US Conflict

#### ➤ Global Implications

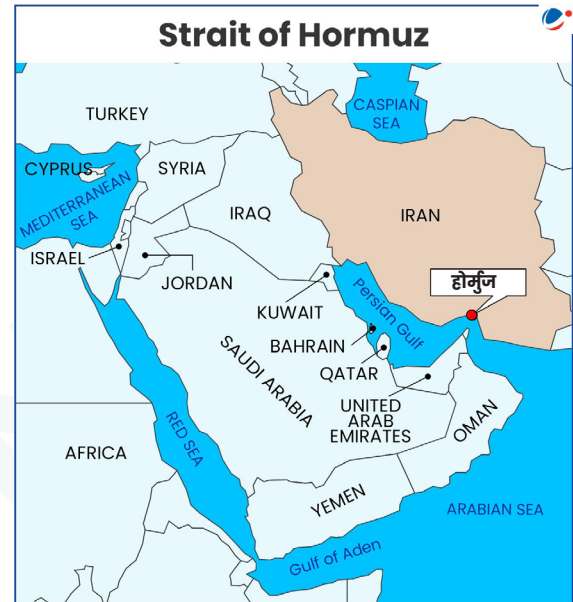
- ➔ **Nuclear Tensions:** Iran may quit NPT.
- ➔ **Trade Risks:** Strait of Hormuz closure threatens oil, LNG supply.
- ➔ **Cable Disruptions:** Affects digital infrastructure.
- ➔ **Power Vacuum:** Escalates instability in West Asia.

#### ➤ Implications on India

- ➔ **Trade Decline:** India's trade with Iran and Israel has significantly reduced due to sanctions and regional tensions.
  - ◊ **Iran:** From **\$14 billion (2017)** to **\$1.4 billion (2024)** after India halted oil imports under U.S. sanctions.
  - ◊ **Israel:** From **\$11 billion (2022)** to **\$3.75 billion (2024)** due to regional tensions.
- ➔ **Geopolitical Realignment:** Iran's fall could **shift West Asia from multipolarity to US-led unipolarity**, reducing space for **non-Western powers like India**.
  - ◊ India needs to maintain close ties with **both Israel and Iran**, requiring careful diplomatic balancing.
- ➔ **Strategic Balancing:** India must navigate ties with both for energy, defence, and Eurasian connectivity.
- ➔ **Project Disruptions:** Chabahar Port, INSTC, and IMEC face setbacks.
- ➔ **Diaspora Risk:** Over 28,000 Indians in conflict zones; evacuation launched under Operation Sindhu.

### Conclusion

India's **strategic autonomy** requires maintaining ties with both Iran and Israel, offering potential **mediation opportunities** amid escalating tensions.





## 2.18. NEWS IN SHORTS

### 2.18.1. Kaladan Multimodal Transit Transport Project (KMTTP)

Union Minister said KMTTP will be operational by 2027.

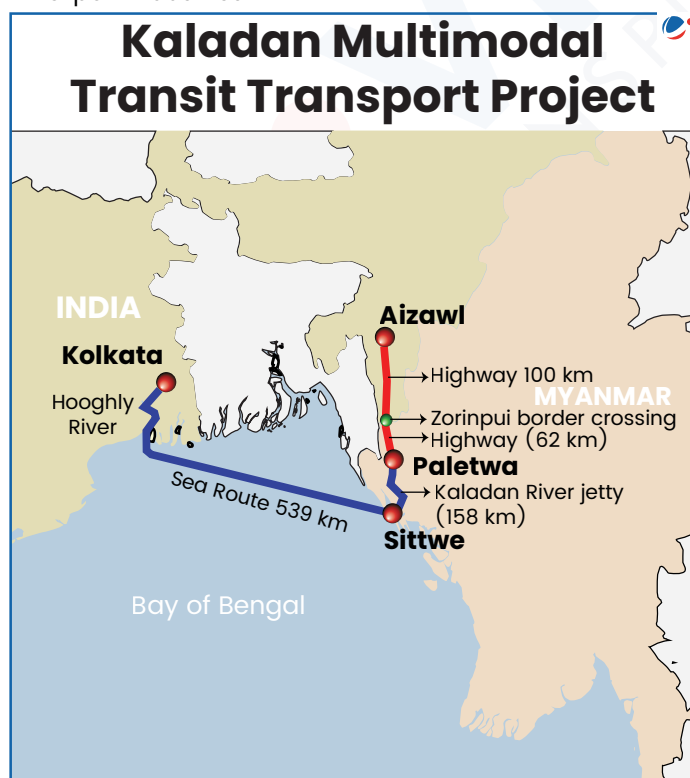
- Jointly identified by **India and Myanmar for multi-modal cargo transport** from **India's Eastern Ports to Myanmar and North-Eastern Region (NER)** through Myanmar.

#### About KMTTP

- Framework Agreement signed in **2008**
- **Nodal Ministry:** Ministry of External Affairs
- **Project Development Consultant:** Inland Waterways Authority of India (Iwai).
- **Transit Components:**
  - ➔ **Waterway:** Kaladan River from **Sittwe Port to Paletwa in Myanmar.**
  - ➔ **Road:** **Paletwa to Zorinpui** on India-Myanmar border in Mizoram.

#### Significance of KMTTP for India

- **Ends North East Region's geographic isolation** bypassing "**Chicken's Neck**" corridor.
- **Aligns with India's Act East Policy** for neighbourhood connectivity.
- **Cuts transport cost** and time from Kolkata to Aizawl by over 50%.
- **Develops NER as business hub**, boosting trade and export industries.



### Other Connectivity Projects for NER

- **India-Myanmar-Thailand Trilateral Highway:** Links Moreh (Manipur) to Mae Sot (Thailand) via Myanmar.
- **Protocol on Inland Water Transit and Trade (PIWT&T):** Lets vessels of India and Bangladesh use each other's waterways.
- **Others:** BBIN Motor Vehicle Agreement; MoU on using Chattogram and Mongla Ports of Bangladesh.

### 2.18.2. India-Kyrgyzstan Bilateral Investment Treaty (BIT)

The **BIT**, signed in **June 2019**, came into **force from 5th June 2025**.

- It **replaces** the 2000 agreement, ensuring **continuity** in investment protection.
- The **BIT balances** investor rights with **sovereign regulatory powers** and aims to foster a **transparent investment climate**.

#### Key Features of the BIT

- **Asset Definition:** Enterprise-based, with clear inclusion/exclusion and investment traits like capital, risk, profit.
- **Policy Space:** Excludes areas like taxation, local government, procurement.
- **No MFN Clause:** Eliminates the **Most Favored Nation** clause to prevent selective adoption of favorable treaty terms.
- **General & Security Exceptions:** Safeguards for environment, health, safety.
- **Dispute Resolution:** Mandates local remedies before international arbitration.

#### About Bilateral Investment Treaty (BIT)



##### Definition:

Also called International Investment Agreements (IIAs), they assure foreign investors protection from adverse actions while upholding a state's regulatory sovereignty.



##### Dispute Resolution:

Allow investors or home countries to sue the host country for investment related disputes.



##### Policy Update:

India approved **new Model BIT Text in 2015**, which replaced **Indian Model BIT, 1993**.



##### Since 2015 India signed BITs with:

Uzbekistan (2024), UAE (2024), Brazil (2020), Belarus (2018).

### 2.18.3. India-Philippines Strategic Partnership

The Philippines and India formally elevated their ties through **Plan of Action (2025-2029)**, marking **75 years of diplomatic ties (since 1949)**.

- Strengthened by **India's Look East (1992) and Act East (2014) policies**.

#### India-Philippines Relations Overview

- **Bilateral Trade:** Bilateral trade exceeded \$3.05 billion in FY2024-25
- **People-to-People Ties:** Diaspora (around 1.2 lakh Indians live in the Philippines)
- **Multilateral Platforms:** Regional security cooperation initiatives
- **Cybersecurity & Counterterrorism:** Collaboration against transnational security threats
- **Maritime:** Joint focus on maritime domain awareness
- **Science, Technology and Education:** Cooperation program promoting advanced technologies
- **Blue Economy:** Focus on sustainable ocean-based industries e.g Shrimp

#### Convergence of India-Philippines Relations

- **Defense ties growing:** \$375m BrahMos missile deal.
- **China's South China Sea assertiveness threatens both, driving cooperation.**
  - ➔ India backs **2016 arbitration ruling**, freedom of navigation.
- **Philippines key in India's Act East** and Indo-Pacific policies.

#### Conclusion

India-Philippines partnership deepens with cyber, economic, maritime, defense ties, promoting a rules-based Indo-Pacific and regional security.

### 2.18.4. UN Security Council (UNSC)

5 countries were elected to serve as non-permanent members of the United Nations Security Council (UNSC).

- These countries are **Bahrain, Colombia, the Democratic Republic of Congo, Latvia, and Liberia**.

#### About UNSC

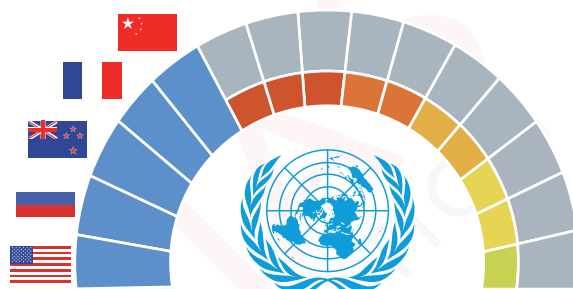
- **Genesis:** Established in **1945** through the **UN Charter** as one of the **6 principal organs** of the UN.
- **Purpose:** Maintaining **international peace and security**.
- **Members:** **5 permanent members (P5)** and **10 non-permanent members**.

#### UNSC Reform Proposal (2024)

- **Proposed by:** **G4 Nations (India, Brazil, Germany, Japan)**.

- **Need:** **Misuse of veto power, poor regional representation**, and failure to reflect **current global realities**.
- **Key provisions:** **11 permanent** and **14-15 non-permanent** members with **equitable regional representation** through **6 new permanent seats** for **Africa, Asia-Pacific, Latin America & Caribbean, and Western Europe**. **No veto for new permanent members** initially, to be reviewed after **15 years**.

#### United Nations Security Council



##### Permanent members, veto rights (5)

- China, France, Russia, UK, USA

##### Non-permanent members, two-year terms (10)

- Africa (3)
- Asia (2)
- Latin America (2)
- Western Europe and others (2)
- Eastern Europe (1)

##### Each Member has one vote.

- ➔ It is the only United Nations organ that has the power to make decisions that member states are obligated to implement

#### Related news

- **Pakistan** has been elected as **Chair of the UNSC's Taliban Sanctions Committee** and **Vice-Chair of the Counter-Terrorism Committee** for **2025**.

#### Taliban Sanctions Committee (TSC)

- **Genesis:** Created under **UNSC Resolution 1988 (2011)**.
- **Key Function:** **Monitor and enforce sanctions** against individuals and entities **linked to the Taliban** threatening **Afghanistan's peace and security**.

#### Counter-Terrorism Committee (CTC)









- **Genesis:** Established after **9/11 attacks** through **UNSC Resolution 1373 (2001)**, **binding on all UN member states**.
- **Members:** All **15 Security Council members**.
- **Key Functions:** Monitor countries' **counter-terrorism efforts** by ensuring they **criminalize terror financing, freeze terrorist funds, and share intelligence**.

## 2.18.5. UN Economic and Social Council (ECOSOC)

India has been elected to the UN Economic and Social Council (ECOSOC) for the term 2026–2028.

- **Membership** in ECOSOC is region-based and divided among five geographic groups: **Africa, Asia-Pacific, Eastern European, Latin American & Caribbean, and Western European and other States.**

### 8 Functional Commissions of UN ECOSOC

 <b>Statistical Commission</b>	 <b>Population and Development</b>	 <b>Social Development</b>
 <b>Status of Women</b>	 <b>Narcotic Drugs</b>	 <b>Crime Prevention and Criminal Justice</b>
 <b>Science and Technology for Development</b>	 <b>UN Forum on Forests</b>	

### About UN Economic and Social Council (ECOSOC)

- **Headquarter:** New York (USA).
- **Genesis:** Established in **1945** as one of the **six main organs** of the United Nations.
- **Members: 54** (elected by the UN General Assembly for a **3-year term**).

#### Key Role

- **Advance sustainable development** in economic, social and environmental dimensions.
- **Coordinates** work of UN bodies and specialized agencies.
- Issues **policy recommendations** to the UN system and member states.

## 2.18.6. International Organization for Marine Aids to Navigation (IALA)

India participated in **2nd Session of IALA Council as Vice President** in Nice, France and will host the **3rd IALA General Assembly in December 2025** and **21st IALA Conference in 2027** in **Mumbai, Maharashtra.**

### About IALA

- **Genesis:** Established in **1957** as an **NGO** as the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).
  - ➔ In **2024**, IALA became an **Intergovernmental Organization (IGO)** to strengthen its global role in **maritime safety.**

- **Purpose:** To foster the **safe, economic and efficient movement of vessels** through improvement and harmonisation of **aids to navigation** worldwide.

#### Mandate:

- ➔ Harmonise **global maritime navigation systems.**
- ➔ Promote **maritime safety initiatives.**
- ➔ Collaborate with member states and international organizations to address emerging challenges in **maritime safety** and **environmental protection.**

## 2.18.7. Us Pulls Funding from Gavi, The Vaccine Alliance

The US has accused Gavi, along with the World Health Organisation (WHO), of silencing dissenting views and legitimate questions about vaccine safety.

- The US has long been one of **biggest supporters** of Gavi.

### About Gavi (2000)



**Nature:**  
A **public-private partnership.**



**Core Partners:**  
World Health Organization, UNICEF, the World Bank, and the Gates Foundation.



**Mission:**  
To save lives and protect people's health by increasing equitable and sustainable use of vaccines.



**Achievement:**  
It vaccinated over 1 billion children across the poorest countries



**Global Role:** Member of the **WHO-led Vaccine Safety Net (VSN) project.**



**Secretariat:** Geneva, Switzerland.

- In recent years, **the United States has withdrawn** from key global institutions such as the **WHO, Paris Climate Agreement, UN Human Rights Council, and UNRWA.**

### Impact of US Withdrawing from Global Alliances

- **Weakening of Multilateralism/Rule-Based Order:** E.g. Israel withdraws participation from UN Human Rights Council.
- **Undermine Climate Actions:** **2024** was recorded as the **hottest year** and the USA stands as the world's **second-largest greenhouse gas emitter** behind China.
- **Shortage of Funds for Health:** US exit could leave institutions with **fund crunch.** E.g., US-funded about **15% of WHO's total funding** in 2024.

- **Other:** It creates a **leadership vacuum** that can be filled up by **China** (it may reduce India's influence in global organisations' decision-making).

### 2.18.8. International Organisation for Mediation (IOMed)

China formally established the IOMed as a global alternative to traditional institutions such as the International Court of Justice (ICJ) and the Permanent Court of Arbitration.

#### About IOMed

- **Purpose:** Dedicated to resolving **international disputes** through **mediation**.
  - ➔ **Members:** Over **30 countries** joined as founding members including **Indonesia, Pakistan, and Belarus**.
  - ➔ Most founding members are from **Asia, Africa, and the Caribbean**, highlighting its **non-Western orientation**.
- **Scope:** Disputes between **states**, between **state and nationals** of another country, **International commercial** disagreements.

### 2.18.9. UN-India Global Capacity-Building Initiative

India launched projects with the **UN under Global Capacity Building Initiative for Asia, Africa and Caribbean countries**.

#### About Global Capacity Building Initiative

- **Genesis:** Launched by India and the UN in **September 2023**.
- **Objective:** Share India's development **experience and expertise with Global South** through capacity-building and training, to accelerate **Sustainable Development Goals (SDGs)**.
- **Implementation:** Via UN India **SDG Country Fund and Indian Technical and Economic Cooperation Programme (ITEC)**.

### 2.18.10. US decides to pull out of UNESCO

The withdrawal was announced due to the agency's support for woke, divisive causes, and anti-Israel bias.

- This is the **third US exit from UNESCO** and **second** under current leadership.
- The US also moved **to leave other UN bodies** like **WHO** and **cut funding** to the UN Relief and Works Agency for Palestine.

#### Impact of US withdrawal

- **Budget:** US gives about **8%** of UNESCO's budget.
- **Geopolitics:** Withdrawal **may boost influence of powers like China**.

- **Multilateralism:** Leaving a UN body **could weaken trust** in global cooperation.

#### About UNESCO

- **UN specialized agency** promoting **peace through education, science, and culture**.
- **Headquarters:** Paris
- **Membership:** 194 Members and 12 Associate Members
- **Key Initiatives:**
  - ➔ Global Education Monitoring Report
  - ➔ World Heritage Sites
  - ➔ World Trends in Freedom of Expression and Media Development
  - ➔ Man and Biosphere Programme

### 2.18.11. Intermediate-Range Nuclear Forces (INF) Treaty

Russia ended its commitment to the **1987 INF Treaty**, citing **recent US military moves**, including **nuclear submarine repositioning** and Typhon missile deployment in the Philippines.

#### About INF Treaty

- Signed by **US and Soviet Union in 1987**, mandating destruction of **ground-launched ballistic and cruise missiles (500–5,500 km)**.
- First major treaty **reducing nuclear arsenals**, **eliminating a weapons class**, allowing on-site inspections.
- Weakened after **US withdrawal in 2019**.

#### Implications on nuclear arms control

- Breakdown of arms control frameworks, **eroding trust and stalling nuclear disarmament efforts**.
- **Accelerated nuclear modernization by major powers**; non-nuclear states reconsider commitments, increasing global instability.
- Revival of **Cold War-era missile crisis fears in Europe**.
- **Increased security risks** with rapid-response weapons, raising chances of accidental nuclear conflict.

#### Key Nuclear Arms Control Agreements

- **Treaty on the Non-Proliferation of Nuclear Weapons (NPT):** Entered into force in 1970, it aims at preventing spread of nuclear weapons and weapons technology.
- **Strategic Offensive Reductions Treaty (SORT):** 2002 US–Russia bilateral agreement limiting strategic nuclear warheads.
- **New Strategic Arms Reduction Treaty (New START):** 2010 bilateral agreement between US and Russia, significantly limiting strategic arms.
- **Treaty on Prohibition of Nuclear Weapons (TPNW):** Adopted at UN in 2017 and prohibits participating in any nuclear weapon activities.



## 2.18.12. Zangezur Corridor

**Türkiye urged Armenia and Azerbaijan to open the Zangezur Corridor** amid their ongoing conflict over **Nagorno-Karabakh** since 1917.

- It is a region that is **internationally part of Azerbaijan** but inhabited by **mainly ethnic Armenians**.



### About Zangezur Corridor

- **Location:** It is a **proposed 43-kilometer transport route** through **Armenia's Syunik Province**.
- **Objective:** Connecting **Azerbaijan's Baku Port in Caspian Sea** to the **Nakhchivan Autonomous Region** and further to **Turkey**.
- **India's concerns:** It can undermine India's investments in **Chabahar Port** and **International North South Corridor (INSTC)** by offering a **competing pathway**, reducing India's **regional leverage**.

## 2.18.13. Armenia-Azerbaijan Peace Agreement brokered by the United States

The deal aims to bring an **end to decades of conflict between the two South Caucasus countries**.

### Key Provisions of the deal

- **Cessation of Hostilities:** Both Armenia and Azerbaijan agree to end conflict and establish diplomatic relations.
- **Trump Route for International Peace and Prosperity (TRIPP):** Transit route linking Azerbaijan to its exclave Nakhchivan through Armenia, with US having exclusive development rights.
- **US Cooperation Deals:** Separate US agreements with both on energy, technology, and economy cooperation.

### Background of the Conflict

**Nagorno-Karabakh** **disputed mountainous region** inside Azerbaijan but mainly ethnic Armenian population.

- **1980s:** Nagorno-Karabakh sought separation with Armenia's support.
- **1991:** Independent countries post-Soviet Union; dispute continued.

- **2023:** Azerbaijan regained full control; nearly 100,000 Armenians fled to Armenia.

### India's Interest

- **Supports peace deal** as achievement in dialogue and diplomacy.
- Armenia is India's **Friendship and Cooperation Treaty** partner (since 1995).
- Azerbaijan lies on **International North-South Transport Corridor** connecting India with Russia via Central Asia.

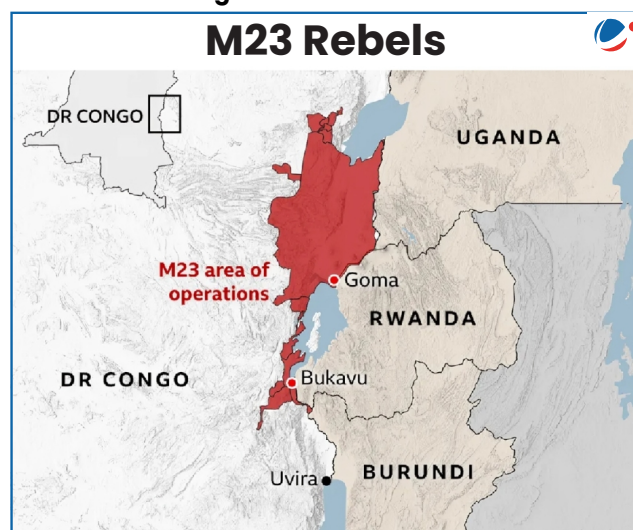


## 2.18.14. M23 Rebels

**Democratic Republic of Congo (DRC)** and **Rwanda-backed M23 rebels** agreed to permanent ceasefire in eastern Congo.

### About M23 rebels

- M23, **mainly ethnic Tutsis**, fights **Congolese forces** in mineral-rich eastern DRC.
- Named after **2009 accord date between CNDP (Tutsi-led) and Congolese government**.
- Formed in **2012 by CNDP members** protesting failed accord implementation, **minority protection**, and **fair resource sharing**.



### 2.18.15. Global Peace Index, 2025

19th Global Peace Index (GPI) released by Institute for Economics and Peace (IEP).

#### About Global Peace Index (GPI)

- Covers **163 states** and **territories**.
- Uses **23 indicators** in **three areas**:
  - ➔ Societal Safety and Security.
  - ➔ Ongoing Domestic and International Conflict.
  - ➔ Degree of Militarization.
- **Key Findings**:
  - ➔ Global peacefulness **declined overall**.
  - ➔ South Asia, **second least peaceful region**, showed largest drop.
  - ➔ **Ranking**: Iceland 1st, India 115th, Russia last (163rd).

### 2.18.16. International Criminal Court (ICC)

International Criminal Court welcomed **Ukraine as 125th State Party to the Rome Statute**.

#### About the ICC

- **First permanent international court** prosecuting genocide, war crimes, crimes against humanity, aggression.
- Established by **Rome Statute (adopted 1998, effective 2002)**.
- India is **not a party** to the Rome Statute.
- **HQ**: The Hague, Netherlands.

### 2.18.17. Pact For Future

India reaffirms commitment to 'Pact for Future' at UN dialogue.

#### About 'Pact for Future'

- Adopted **at 2024 Summit of the Future**.
- **It Includes**:
  - ➔ Global Digital Compact (first comprehensive digital cooperation framework)
  - ➔ Declaration on Future Generations
- **Features**: Clear commitments on human rights, gender, and sustainable development.
- **Key Areas of commitments**
  - ➔ Sustainable development and financing
  - ➔ International peace and security
  - ➔ Science, technology, and digital cooperation
  - ➔ Youth and future generations
  - ➔ Transforming global governance

### 2.18.18. E3 Countries

Iran threatened with snapback sanctions by **E3 countries** amid stalled U.S.-Iran nuclear talks.

- **Snapback sanctions (under 2015 JCPOA)** allow reimposing sanctions if Iran breaches nuclear commitments.

#### About E3 countries

- **Informal security** cooperation between UK, Germany, and France.
- Formed after **US attacked Iraq in 2003** to coordinate Iraq strategy and manage Iran nuclear risks.

### 2.18.19. Eurasian Economic Union

India and the Eurasian Economic Union signed **Terms of Reference, formally starting FTA negotiations to build a long-term trade cooperation framework**.



#### Potential Benefits of FTA with EAEU

- **Economic Benefits**:
  - ➔ **Trade expansion** unlocking potential; stronger India-EAEU partnership (**USD 69 billion in 2024, 7% rise**).
  - ➔ **Market access** for Indian exporters amid US tariffs; **supports diversification**.
  - ➔ **Enhances competitiveness**; benefits MSMEs.
  - ➔ **Energy partnership**: Russia supplies 35-40% of India's oil imports.
- **Strategic Benefits**: Strengthens India's **multialignment policy** with **Russia-led bloc**.

#### About Eurasian Economic Union (EAEU)

- International **economic integration** organization.
- Created by **Treaty on EAEU (2014)**.
- **Enables free movement** of goods, services, capital, labour.

### 2.18.20. Asia-Pacific Institute for Broadcasting Development (AIBD)

- India has been elected as the **Chairman of the Executive Board of AIBD** at **23rd General Conference** in Thailand.

- **About Asia-Pacific Institute for Broadcasting Development**
- **Genesis:** Founded in 1977 under the auspices of UNESCO, AIBD is a unique regional inter-governmental organization.
- **Secretariat:** Kuala Lumpur.
- **Mandate:** To achieve a vibrant and cohesive electronic media environment in the Asia Pacific.
- **Members:** 92 organizations from 45 countries.
  - ➔ India is a **founding member of AIBD, and Prasar Bharati India's public service broadcaster represents** the Ministry of Information & Broadcasting in the organization.

### 2.18.21. Henley Passport Index 2025

India's Henley Passport Index rank improves **from 85 (2024) to 77 (2025)**.

- Indians can visit **59 destinations visa-free** or **with visa on arrival**.

#### About Henley Passport Index

- Authoritative ranking of passports by **visa-free access**.
- Based on **International Air Transport Association (IATA)** data.
- **Singapore** ranks first.

### 2.18.22. New Caledonia

France agrees to give New Caledonia more autonomy.

- Agreement creates **"State of New Caledonia"** within France, granting more freedoms but no independence.

#### New Caledonia

- **French** overseas territory in the Pacific Ocean.
- **History:** Islanders enslaved in **1840s**; annexed by France in **1853**.
- Current issue: Divisions between **indigenous Kanak and Europeans over independence**



### 2.18.23. Red Sea

Red Sea cargo ships attacked; Houthis claim sinking vessel.

#### Red Sea

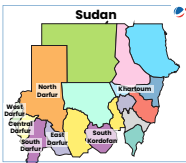

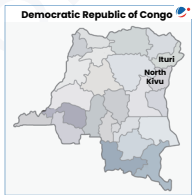
- **Marginal sea** in northwest Indian Ocean.
- Connects **Gulf of Aden via Bab El Mandeb Strait and Mediterranean** via Suez Canal.
- **Borders:** Egypt, Sudan, Eritrea (West); Israel, Jordan (Northeast via Gulf of Aqaba); Saudi Arabia, Yemen (East).
- Northern part **splits into Gulf of Suez (NW) and Gulf of Aqaba (NE)**.
- One of the saline seas, as it receives **very little precipitation in any form**, and no water enters the Red Sea from rivers.



### 2.18.24. Conflict Areas in News

Area	Information	Map
Gaza (Khan Yonis, Rafah, Jabalia, Dier al-Balah)	<b>Reason</b> <ul style="list-style-type: none"> <li>➤ The <b>UN declared famine in August 2025</b> due to Israel's blockade and restricted aid after Hamas attacks.</li> </ul>	



	<ul style="list-style-type: none"> <li>➤ Half a million people at <b>starvation risk with worsening food insecurity across the strip.</b></li> <li>➤ Key Features</li> <li>➤ A small, <b>densely populated coastal strip</b> along the eastern Mediterranean with <b>2.2 million people.</b></li> <li>➤ Borders Israel (north, east) and Egypt (southwest).</li> </ul>	
<b>Sudan (Darfur, Khartoum, South Kordofan, Blue Nile States)</b>	<b>Reason</b> <ul style="list-style-type: none"> <li>➤ Entered civil war in <b>April 2023</b> due to conflict <b>between Sudan Army and RSF paramilitary group.</b></li> <li>➤ Key Features</li> <li>➤ <b>Northeast African country</b>, third largest in Africa, <b>bordered by Egypt and the Red Sea.</b></li> <li>➤ Nile River (White and Blue Nile) flows through it.</li> </ul>	
<b>Ukraine (Kyiv, Donetsk, Zaporizhzhia, Cherkasy, Chernihiv, Kharkiv)</b>	<b>Reason</b> <ul style="list-style-type: none"> <li>➤ Facing severe <b>humanitarian crisis</b> amid continued Russian missile and drone attacks.</li> <li>➤ Key Features</li> <li>➤ Eastern European country bordered by <b>Russia and Black Sea.</b></li> <li>➤ <b>Dnieper River</b> runs through Kyiv; mountainous regions in west and south.</li> </ul>	
<b>Democratic Republic of Congo (North Kivu, Ituri province)</b>	<b>Reason</b> <ul style="list-style-type: none"> <li>➤ Enduring repeated wars <b>due to ethnic conflict, weak governance, and mineral wealth competition.</b></li> <li>➤ Key Features</li> <li>➤ <b>Central African country, 2nd largest in Africa</b>, rich in minerals like cobalt, copper, gold.</li> <li>➤ Contains Africa's second-<b>longest river basin (Congo River)</b> and second-<b>largest tropical rainforest.</b></li> </ul>	




**VISION IAS**  
INSPIRING INNOVATION

# SANDHAN

**A VisionIAS Personalised Test Series**

(An All India GS Prelims Test Series feature for Smart Revision, Practice and Holistic Preparation for UPSC Prelims)

- Extensive collection comprising 25000+ VisionIAS and UPSC Prelims PYQs
- Personalised Test creation by selecting subjects and topics as per one's need
- Access to Performance Improvement Tests
- Receive personalised recommendations identifying focus areas



Scan to know more

2026

ENGLISH MEDIUM  
21 SEPTEMBER

हिन्दी माध्यम  
21 सितम्बर



## 2.19. TEST YOUR LEARNING

### 1. Consider the following statements:

1. India became a full member of SCO in 2017.
2. All decisions in SCO are taken by consensus, and any single objection blocks adoption.

Which of the above statements is/are correct?

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

### 2. Consider the following statements

1. India is a permanent member of the G7.
2. India participated in the 2025 G7 Summit hosted by Canada.

Which of the above statements is/are correct?

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

### 3. The Geelong Treaty is associated with:

- (a) BRICS economic cooperation
- (b) AUKUS submarine partnership
- (c) MERCOSUR trade liberalization
- (d) Indo-Pacific QUAD framework

### 4. The term "Girmitiya" historically refers to:

- (a) Indian students studying abroad on colonial scholarships
- (b) Indian indentured labourers under colonial contracts
- (c) Workers recruited for British navy during World War II
- (d) Diaspora merchants in East Africa

### 5. Consider following statements about Eurasian Economic Union (EAEU).

1. It was created by a treaty in 2014.
2. It ensures free movement of goods, services, capital, and labour.

Which of the above is/are correct?

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

### Mains Question

#### Q1. (150 words)

Critically analyze India's approach to balancing its strategic autonomy and multilateral obligations within the Shanghai Cooperation Organization (SCO).

#### Q2. (250 words)

India's MAHASAGAR doctrine seeks to align national interests with global maritime governance. Examine its role in addressing traditional and non-traditional challenges in the Indian Ocean.

# ECONOMY



## Table of Content

3.1. INTERNATIONALIZATION OF RUPEE . . . . .	53	3.16. INCOME TAX ACT 2025 . . . . .	63
3.2. FOREIGN DIRECT INVESTMENT (FDI) . . . . .	54	3.17. INDIAN PORTS ACT, 2025 . . . . .	63
3.3. FISCAL RESPONSIBILITY AND BUDGET MANAGEMENT (FRBM) ACT . . . . .	55	3.18. AVIATION SAFETY . . . . .	64
3.4. PUBLIC DEBT IN INDIA . . . . .	55	3.19. COMPETITION COMMISSION OF INDIA . . . . .	65
3.5. ASSET MONETIZATION . . . . .	56	3.20. PRIME MINISTER DHAN-DHAANYA KRISHI YOJANA (PMDDKY) . . . . .	66
3.6. EMPLOYABILITY AND SKILLING IN INDIA . . . . .	57	3.21. COMPETITION COMMISSION OF INDIA . . . . .	66
3.7. REGIONAL IMBALANCES IN INDIA . . . . .	58	3.22. ATAL MISSION FOR REJUVENATION AND URBAN TRANSFORMATION (AMRUT) . . . . .	67
3.8. FINANCIAL INCLUSION IN INDIA . . . . .	58	3.23. RESEARCH DEVELOPMENT AND INNOVATION (RDI) SCHEME . . . . .	68
3.9. RURAL INDIA: THE NEW ENGINE OF INDIA'S CONSUMER MARKET . . . . .	59	3.24. FINANCING FOR SUSTAINABLE DEVELOPMENT . . . . .	69
3.10. PRODUCT NATION . . . . .	59	3.25. ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) . . . . .	70
3.11. GIG WORKERS . . . . .	60	3.26. 100TH BIRTH ANNIVERSARY OF MS SWAMINATHAN . . . . .	71
3.12. THE FUTURE OF WORK . . . . .	60	3.27. QUICK COMMERCE IN INDIA . . . . .	71
3.13. DIGITAL INDIA MISSION . . . . .	61	3.28. NEWS IN SHORTS . . . . .	72
3.14. BLUE ECONOMY . . . . .	61	3.29. TEST YOUR LEARNING . . . . .	78
3.15. MINES AND MINERALS (DEVELOPMENT AND REGULATION) AMENDMENT ACT, 2025 . . . . .	62		

## 3.1. INTERNATIONALIZATION OF RUPEE

### Why in the News?

RBI removes prior approval requirements for banks to open Special Rupee Vostro Accounts (SRVAs).

### More on the News

- Special Rupee Vostro Account (SRVA) enables exporters and importers to **invoice and settle trade in Indian Rupees (i.e. Internationalization of Indian Rupee)**.
- **Vostro Account:** A foreign bank's account held in a domestic bank in the local currency.
- **Nostro Account:** Domestic bank's account in a foreign bank in the currency of the overseas country.

### What is Internationalization of Rupee?

- Internationalization of Rupee refers to a process that involves **increasing use of the rupee in cross-border transactions**.

### What is an International currency?

- It is a currency used for transactions between countries and beyond the borders of the issuing nation.
- It performs the **three functions of money (As a medium of exchange, a unit of account, and a store of value)**. E.g. US dollar, the Euro, Japanese yen, Chinese renminbi/Yuan and the pound sterling.
- **Determinants of Internationalization of Currency:** Stability, Wider use, Capital account openness, Large Economic size and trade network.

### Benefits of Internationalization of Rupee

- **Lower Currency Risk & FX Reserve Needs,** Global Standing & Bargaining Power
- **Trade & Policy Flexibility:** soften the impact of sanctions, diversify partners.
- **Financial Market Development:** deepens Indian bond and equity markets, attracts investment.

### Challenges in Internationalization of Rupee

- **Increased Exchange Rate Volatility,** Reduced Monetary Policy Autonomy, Higher Capital Flight Risk
- Greater External Shock Vulnerability, Competition with other currencies
- **Ensuring Liquidity and Convertibility:** In India, **full current account convertibility is allowed**, whereas **on capital accounts only partial convertibility is allowed**.

### Steps Taken for Rupee Internationalization:

- **RBI Strategic Action Plan:** Roadmap for 2024-25 to promote INR usage globally.
- **SPECTRA Project:** Platform for ECBs and trade credit reporting and approval.
- **Indian Payment Infrastructure:** UPI linked with Bhutan, France, Mauritius, Nepal, UAE, Singapore.
- **Asian Clearing Union (ACU):** Proposal to include INR as a settlement currency.
- **GIFT City Development:** Supports offshore financial activities and global usage of INR.

### Way Forward

- **Short-Term Measures:** Promote Rupee accounts for non-residents; integrate payment systems.
- **Medium-Term Measures:** Liberalize Masala bonds framework; expand Real Time Gross Settlement (RTGS).
- **Long-Term Measures:** Aim for INR inclusion in IMF's Special Drawing Rights (SDR) basket.
- **Specific Reforms:** Enhance rupee convertibility, develop robust bond markets, encourage trade in INR.
- **Harmonization of KYC:** RBI and SEBI to simplify foreign investor access to INR assets.

#### 3.1.1. De-dollarization

### Why in the News?

RBI's push for internationalization of INR aims to reduce dependence on foreign currencies resulting in global de-dollarization.

### What is De-dollarization?

- It **aims to reverse dollarization** (historical domination of US dollar in global market) causing a significant reduction of its use in world trade, reserves and financial transactions.

### Key reasons for De-dollarization

- **Asymmetry of shrinking US economic weight and growing dominant role of the dollar**
- **Weakening credibility of Dollar:** The US government's high debt burden
- **Spillover effects of US monetary policy:** Actions by the Federal Reserve, such as hiking interest rates (2023)
- **Weaponization of US dollar and payment clearance systems**
- **Aspiration for a new and more democratic international economic order**
- **Positive developments outside U.S.:** Enhanced credibility of alternative currencies, like China.

### Challenges with De-dollarization

- **Transition Costs:** updating financial systems, adjusting contracts, and renegotiating trade agreements.
- **Market Volatility, Geopolitical Tensions.**
- **Reserve Diversification Challenges:** currency depreciation or commodity price swings.

### Recent Initiatives for De-dollarisation

- **mBridge Project:** Cross-border CBDC payment system backed by China, Thailand etc.
- **BRICS Pay:** Digital platform for faster, cheaper cross-border trade in local currencies.
- **China's Digital Yuan**

## 3.2. FOREIGN DIRECT INVESTMENT (FDI)

### Why in the News?

- According to the RBI Bulletin (June 2025), India's net FDI inflows dropped by 96% in FY25 compared to FY24, despite a rise in gross FDI inflows.

### About Foreign Direct Investment (FDI)

- **Definition:** Investment by a foreign entity in an unlisted Indian company or 10%+ equity in a listed company.
- **Regulation:** Governed by Consolidated FDI Policy (2020) and FEMA (Non-Debt Instruments) Rules, 2019.
- **Gross vs. Net FDI:**
  - ➔ **Gross FDI:** Total foreign investments into India.
  - ➔ **Net FDI:** Inward FDI minus repatriation + Indian outward FDI.
- **Entry Routes:**
  - ➔ **Automatic Route:** No prior approval required. (e.g., Agriculture, Telecom)
  - ➔ **Government Route:** Requires prior government approval.
- **Prohibited Sectors:** Lottery, Gambling, Chit funds, Atomic Energy, Railway operations, etc.

### Reasons for fall in Net FDI

- **Rising outward investment:** USD 12.5 billion in FY25
- **Liberalised Overseas Direct Investment (ODI) Guidelines (2022)**
- **Increased repatriation signals a maturing market**
- **Global risks:** Trade tensions, weak demand, global FDI down 11% in 2024 (UNCTAD)
- **Harvest phase of older FDI and export contractions**

### Significance of Growing FDI

- **Capital Formation:** Enables tech transfer, strategic growth. Greenfield investments projected at USD 110 billion (UNCTAD WIR 2025).
- **Forex Stability:** Reserves cover 11+ months of imports, 96% of external debt (RBI, May 2025).
- **Sustainable Finance:** India leads in carbon credit issuance (Verra Registry).
- **Innovation & Employment:** Encourages competition and global best practices.

### Initiatives to Boost FDI

- Sectoral reforms (e.g., Insurance FDI cap raised to 100%).
- Jan Vishwas Act (2023) eased compliance.
- New investment treaties and TEPA with EFTA.
- BRAP & LEADS rankings foster state-level competition.
- PDCs and flagship schemes (PLI, Make in India, Gati Shakti).



## Way Forward

- Policy stability and judicial reforms.
- Digital economy development.
- Investment incentives (e.g., tax breaks).
- Strengthen global cooperation on fair investment systems.

## 3.3. FISCAL RESPONSIBILITY AND BUDGET MANAGEMENT (FRBM) ACT

### Why in the News?

**Comptroller and Auditor General of India (CAG's) report** highlighted fiscal inconsistencies and transparency issues in the government's compliance with the FRBM Act.

### About FRBM Act, 2003

- **The FRBM Act, 2003 ensures fiscal discipline, long-term stability, and mandates annual CAG compliance review.**
- FRBM Act mandates following to be laid before Parliament along with the Budget: **Macro-economic Framework Statement, Medium Term Fiscal Policy Statement, Fiscal Policy Strategy Statement.**

### Key Findings of the CAG Report

- **Debt-to-GDP** peaked at 61.38% (FY21), declined to 57% (FY24).
- **Debt sustainability** indicators turned positive in FY23–24.
- **Interest payments** rose to 35.35% of revenue receipts (FY23).
- **Guarantee limits** stayed within 0.5% of GDP.
- **Unrealized tax revenues** surged to ₹21.3T, mostly undisputed.
- **Deficit figures** showed discrepancies, raising credibility concerns.

## 3.4. PUBLIC DEBT IN INDIA

### Why in the News?

Reserve Bank of India (RBI) in its **Biannual Financial Stability Report (FSR) 2025** found rising public debt.

### Key highlights of the report

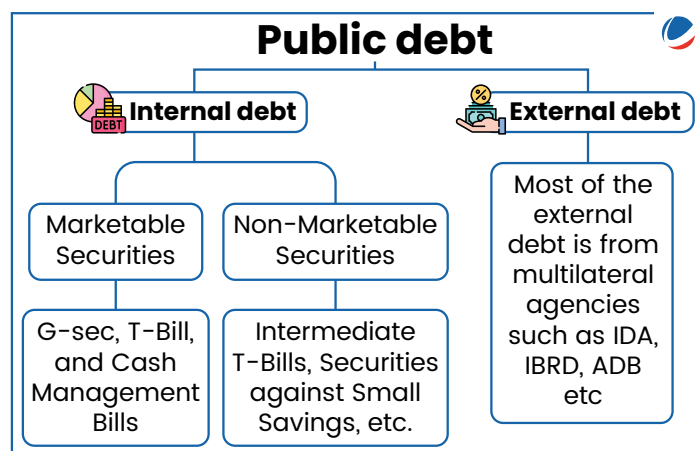
- Growth projection **at 6.5% in 2025–26.**
- **Inflation Trends:** CPI inflation 6-year low 2.8% in May 2025 with concerns of **Imported Inflation** from tensions in the Middle East.
- **Rising Public debt: High as percentage of GDP in 2024** (More than 80%) compared to **Emerging Market Economies (EMEs).**

### About Public Debt in India

- **Public debt**, also known as 'national debt', is the accumulated amounts of borrowing that **government, and other public sector bodies**, owe to the private sector and foreign governments.
  - ➔ **Internal debt is 96.59%** and external debt is **3.41%** of total public debt of 18,174,284 crore.
- **Impact of High Public debt:** Increased interest costs, limited fiscal space, potential inflationary pressures, crowding out of private investment and impact growth and intergenerational equity.

### Legal framework for management of public debt in India

- **Fiscal Responsibility and Budget Management (FRBM) Act, 2003:** It sets a target of containing Central Government Debt to 40% and **General Government debt** to **60% of GDP** by 2024–25.



- **RBI Act, 1934:** RBI to manage the Central Government public debt.

### Reasons of high Public Debt in India

- **Persistent Fiscal Deficits, High Revenue Expenditure due to subsidies, Salary etc, External Debt Growth (10% to \$736.3 2025 from \$668.8 billion in 2024), Pandemic-Era Spending.**

### Way Forward to manage and reduce Public Debt in India

- **Target** a declining debt-GDP ratio to **50±1%** by March 31, 2031.
- **Debt Management via Bond Switching:** Replacing shorter duration sovereign bonds with long-duration.
- **Subsidy Rationalization & Tax Reforms**
- **Establish Public Debt Management Authority**

## 3.5. ASSET MONETIZATION

### Why in the News?

The National Highways Authority of India (NHAI) has announced its asset monetization strategy to unlock value and boost public-private participation in developing road infrastructure.

### More on the News

- The strategy leverages Toll-Operate-Transfer (ToT), Infrastructure Investment Trusts (InvITs), and securitisation models.
- Over ₹1.4 lakh crore has been raised across 6,100 km of National Highways under the National Monetization Pipeline (NMP).

### What is Asset Monetization?

- It involves unlocking the economic value of underutilized public assets to generate revenue without necessarily disinvesting them.

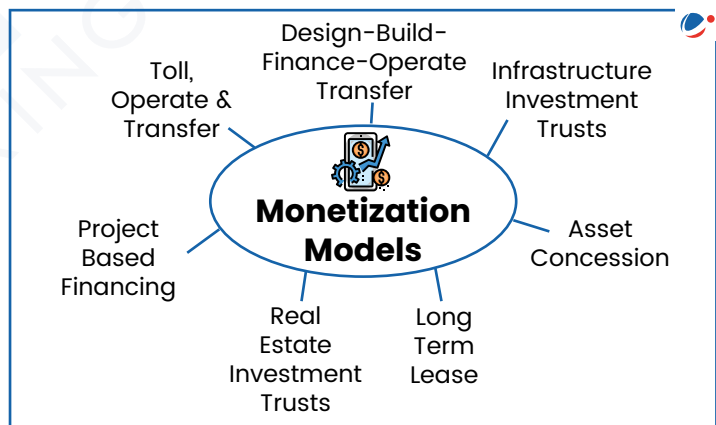
### Need for Asset Monetization

- **Bridging Investment Gaps:** Addresses funding constraints through non-tax revenue.
- **Enhancing Efficiency:** Brings private sector expertise for better operations.
- **Unlocking Brownfield Assets:** Targets de-risked assets with stable returns.
- **Boosting Global Competitiveness:** Attracts FDI and strengthens India's global integration.

**Key Institutions:** Alternative Mechanism, Core Group of Secretaries, Inter-Ministerial Group, DIPAM, and NITI Aayog.

### Major Initiatives

- National Monetization Pipeline
- National Land Monetization Corporation (NLMC)
- Asset Monetisation dashboard



### Asset Monetization in India: Impediments versus Strategic Interventions

Domain	Impediments in Asset Monetization	Strategic Interventions Required
<b>Transparency Governance</b>	Vulnerable to favoritism; lack of advance disclosure.	Public Disclosure of Future Monetization Pipeline; transparent bidding.
<b>Sectoral Issues</b>	Remains concentrated; urban infra, railways neglected.	Broaden & Bundle Monetization (smaller assets across un-invested sectors).
<b>Valuation Discovery &amp; Competitive Bidding</b>	Risk of undervaluation; limited participation due to capital intensive nature.	Adopt De-risked Models (e.g., TOT, InvITs).

<b>State-Level Readiness</b>	Negligible state participation; lack of financial incentives.	Unlock potential in state assets; use interest-free loans to states.
<b>Consumer &amp; Public Interest</b>	Over exploitation by private players, price hikes.	Adopt "monetize rights, not ownership"; strict contractual obligations.
<b>Institutional Fragmentation</b>	Multiple ministries involved; poor coordination; lack of centralised planning.	Form an Infrastructure Ministry.
<b>Regulatory Uncertainty</b>	Lack of <b>clarity</b> (E.g Telecom)	Develop sector-specific guidelines; independent evaluation.
<b>Fiscal Utilization &amp; Public Trust</b>	Misuse of disinvestment proceeds for fiscal deficit.	Funds for PSU's Restructuring; explore leasing/rental models.
<b>Monitoring &amp; Performance Tracking</b>	Weak post-monetization oversight	Define clear <b>Key Performance Indicators (KPIs)</b>

### Conclusion

Asset Monetization Strategy is a transformative approach that unlocks value from existing assets and reinvests in new projects, creating robust infrastructure to support India's long-term economic growth and sustainable development.

## 3.6. EMPLOYABILITY AND SKILLING IN INDIA

### Why in the News?

Recently the Union Cabinet approved the **Employment Linked Incentive (ELI) Scheme**.

### About Employment Linked Incentive (ELI) Scheme

- **Background:** Announced in the Union Budget **2024-25**.
- **Nodal Ministry:** Ministry of Labour & Employment.
- **Purpose:** Promote job creation, enhance employability, skilling and expanding social security.
- **Target:** 3.5 crore jobs (including first-time employees)
- **Part A- Incentives for First-Time Employees:**
  - ➔ **Eligibility:** First-time employees registered with EPFO: salary up to ₹ 1,00,000.
  - ➔ **Benefit:** One month's EPF wage (max ₹ 15,000) paid in two instalments after 6 month & 12 months
- **Part B Support to Employers:**
  - ➔ **Employer Eligibility:** EPFO-registered establishment.
  - ➔ **Benefits for Additional Hiring:** Financial assistance for each additional employee with sustained employment of at least 6 months.
  - ➔ **Incentive to Employers:** ₹ 1,000-₹ 3,000 per employee per month for 2 years, with manufacturing sector gets an extra 2 years.

### About Employability and Skilling In India

- **Employability:** Over **50% of graduates** (**53.47%** for Male and **46.53%** for Female) are employable in 2024, up from **33% a decade ago** (17% rise) (India Skills Report 2025).

### Challenges Existing In India's Employability and Skilling Landscape

- **Mismatch Between Education and Industry Needs.**
- **Threat from Automation:** 69% of jobs in India face automation risk (World Bank).
- **Limited Emphasis on Soft Skills Development.**

### Key Initiatives Taken for Employability And Skilling

- **Skill India Mission (SIM):** Constitute PM Kaushal Vikas Yojana (PMKVY) 4.0.
- **Skill India Digital Hub (SIDH) platform:** Integrate skilling, education, employment, and entrepreneurship
- **India Skills Accelerator:** launched by Ministry of Skill Development and Entrepreneurship (**MSDE**), in collaboration with the **World Economic Forum (WEF)**

## 3.7. REGIONAL IMBALANCES IN INDIA

### Why in the News?

Standing Committee on Finance Report recommended **to evenly distribute industries across States to reduce regional imbalances in India.**

### More on the News

- Regional imbalances refer to the **differences in economic development and uneven economic growth** in different geographical regions.
- **Industries are a State subject** but **Union list has Industries** for defence or for the prosecution of war or be expedient in the public interest.

### Reasons for Regional Imbalances in India

- **Historical Factors:** British concentration of development in areas like West Bengal and Maharashtra.
- **Geographical Factors:** Difficult terrain (e.g., Himalayan and North-Eastern states).
- **Political factors:** E.g. Relocation of Tata Nano project from West Bengal to Gujarat due to protests.
- **Policy Disparities:** The Green Revolution benefited a few states like Punjab and Haryana etc.
- **Lack of Growth of Ancillary Industries**
- **Location Specific:** E.g. Commercial hubs in National Capital region (Gurugram, Noida).
- **Infrastructure Deficit:** Poor transportation, banking services etc. limits growth. E.g. North East.

### Consequences of Regional Imbalances in India

- **Security:** E.g., Insurgency in North-east and left-wing extremism in large parts of central and eastern states.
- **Political fragmentation:** E.g. Demand for separate Vidharbha State in Maharashtra, Bodoland in Assam, etc.
- **Economic:** Difference in Per Capita Income, Prosperous areas attracts more investments.
- **Environmental:** Air, water, and noise pollution.
- **Social:** Frustration among youth and vulnerable sections like SC, ST, OBCs, women, etc.
- **Disparity in Human Development,** Health Inadequacy etc.
- **Other:** Housing & Water Problem in Metropolitan cities like Mumbai, New Delhi, Chennai and Hyderabad.

### Initiatives taken by the Government

**Aspirational Districts Programme (ADP):** Transforming 112 most under-developed districts; **Aspirational Block Programme (ABP):** Developing underdeveloped blocks; **PM-DevINE (Prime Minister's Development Initiative for Northeast Region); Special Package Scheme:** For Himachal Pradesh, Uttarakhand and J&K; **Pradhan Mantri Kshetriya Kalyan Yojana (PMKKKY)**

### Way Forward

- Promoting New Financial Institutions in Backwards Regions, New Regional Boards, Growth Corridors, Performance-Based Funding, Additional funds for Infrastructure, Strengthening of Good and Local Governance in backward states
- **Others:** Deregulation, R&D and innovation, and improving skill levels of the workforce.

## 3.8. FINANCIAL INCLUSION IN INDIA

### Why in the News?

The RBI Financial Inclusion Index (FI-Index) has risen to **67** in 2025, up by 24.3% since 2021.

### Financial Inclusion Index:

- **FI-Index** captures financial inclusion across the country while representing different sectors such as banking, investment, insurance, pension etc. Three sub-indices of index i.e. Access, Usage and Quality.
- **Key Drivers:**
  - ➔ **Government initiatives:** PMJDY, NSFI (2019–24), Aadhaar KYC, Digital India.



- ➔ **Technology:** UPI, JAM trinity, AI/ML tools for fraud detection & customer service.
- ➔ **Institutions:** MFIs (2nd largest globally), SHGs (13.4 mn+), Bank Sakhis, PSL.
- **Significance:** Supports SDGs, entrepreneurship, resilience, digital innovation, and rural development.
- **Challenges:** Account inactivity, gender gap, weak infrastructure, low device access, financial illiteracy, credit constraints, digital divide.
- **Way Forward:** Focus on unbanked, tech-driven ecosystem (RIAs, CBDC), promote ONDC & OCEN, strengthen data privacy & cybersecurity, adopt targeted PPP-based policies.

## 3.9. RURAL INDIA: THE NEW ENGINE OF INDIA'S CONSUMER MARKET

### Why in the News?

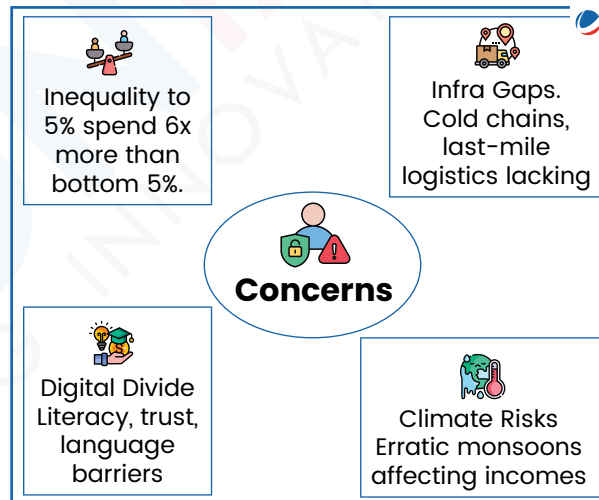
Amidst robust rural market growth, the Union Finance Minister urged FinTech firms to view rural India not merely as a social responsibility, but as an untapped opportunity to create new markets.

### Rural India: The New Engine of India's Consumer Market

- **Rising Demand:** Rural consumption outpaces urban, with FMCG growth (e.g., Dabur) faster in villages. Rural MPCE rose 9.2% in 2023–24, surpassing urban's 8.3% (HCES 2023–24).
- **Narrowing Gap:** Urban–rural MPCE gap fell to 69.7% from 71.2%.
- **Urbanized Spending:** Non–food items, education, communication, and healthcare now dominate rural spending.

### Growth Drivers

- **Disposable Incomes:** Non–farm work, MGNREGA, remittances.
- **Poverty Reduction:** Rural poverty fell below 5% (from 25.7% in 2011–12).
- **Government Initiatives:** DBT, PM–KISAN boosted liquidity.
- **Infra Push:** Roads (PMGSY), digital growth (BharatNet); rural internet subscriptions up 200%.
- **Financial Inclusion:** UPI, PMJDY—67% rural/semi–urban accounts, 55% by women.



### Conclusion

Government should reduce inequality, boost skilling, and develop multi-modal infrastructure, while the private sector must localize outreach, promote micro–entrepreneurship like HUL's Project Shakti, and use vernacular tech.

## 3.10. PRODUCT NATION

### Why in the News?

Standing Committee on Finance advised ways to tackle global trade uncertainties and increasing protectionism.

### More on the News

- Global conflicts and US tariffs expose India's trade vulnerability, but experts see a chance to shift from services to products, aided by reforms like GST rationalization.

### What is a Product Nation?

- **Definition:** A product nation is a country that **produces and exports high-value goods**.
- **Purpose:** Shifts from being only a consumer or assembler to becoming a creator of globally competitive goods. E.g. **higher value lies in R&D, design, branding, and distribution rather than pure manufacturing**. E.g., **Apple (\$3T market cap) vs. Foxconn (\$85B)**.

## Challenges in Becoming a Product Nation

- **Innovation & R&D Gaps:** India spends **0.65% of its GDP on R&D**.
- **Import Dependence:** E.g. **India imports 65–70% of its semiconductor** needs.
- **Structural Constraints:** **Weak infrastructure** and a **shortage of skilled labor**.
- **Employment Generation, Low Private Investment,** Delays in approvals, **complex compliance**, etc.
- **Climate & Sustainability Risks:** Coal generates more **than 70% of India's total electricity**.

**India's Transformative Initiatives:** National Critical Minerals Mission, Indigenous human spaceflight (Gaganyaan), MSMEs in global supply chains, Viksit Bharat Rojgar Yojana, PM Dhan Dhanya Krishi Yojana etc.

**Way Forward:** Strengthen Manufacturing, Infrastructure & Connectivity Push, Invest in Human Capital, Foster Product Development Platforms.

## 3.11. GIG WORKERS

### Why in the News?

Karnataka's State Legislative Assembly passed the **Karnataka Platform-Based Gig Workers (Social Security and Welfare) Bill, 2025 after Rajasthan and Bihar** containing provisions like **Welfare Board, Fund etc.**

### About Gig workers

- **Definition:** The **Code on Social Security, 2020**, defines a gig worker as a person who works outside a traditional employer-employee relationship.
- **Types:** **Platform:** Work on online apps or digital platforms. E.g., Ola, Uber, Zomato, etc.; and **Non-platform:** casual wage workers and own account workers in conventional sectors working part-time or full time.
- **Reasons for growth:** Demographic dividend, Rapid urbanization, Adoption of smartphones and internet.

### Significance of the gig economy

- **For government:** **Utilise demographic dividend, Economic growth** worth \$250 billion in transactions.
- **For society:** Empowering the vulnerable section and Micro-Entrepreneurship.
- **For workers:** Flexible Employment and Skill development.
- **For consumers:** Access to the Global Market and Greater convenience.

### Challenges for Gig Workers

- **Lack of social security:** More than 82.5 % of gig workers are **informal** employees (NITI Aayog).
- **Health and Safety Concerns, High Working hours:** 47% of the workers work for more than 12 hours a day
- **Income uncertainty, Algorithmic Asymmetry** leads to **Information Access**

### Steps taken for the Gig Workers in India

- Code on Social Security, 2020, Code on Wages, 2019, Pradhan Mantri Suraksha Bima Yojana (PMSBY) etc.

## 3.12. THE FUTURE OF WORK

### Why in the News?

Tata Consultancy Services (TCS) recent announcement to **lay off 12,000 employees** has raised implications on **Future of Work**.

### About Lay Offs

- Lay-off means the **failure, refusal or inability of an employer** due to various reasons (shortage of coal, power or raw materials or natural calamity etc.) to give employment to a workman in worker list.
- Many **Multinational corporations** have let go more than **1, 05,000 positions** this year worldwide.
- **Legal Provisions related to Layoffs:** Industrial Disputes Act, 1947, Four Labour codes.

### About Future of Work

- The future of work refers to the **ongoing transformation** of how work is performed, organized, and experienced, driven by technological, economic, and demographic shifts.
- **Key Drivers of Future of Work:** Economic Uncertainty, Skill gaps, demographic shifts (Aging, new workforce), job creation, geoeconomic fragmentation (Russia–Ukraine war etc), Green transition, Tech disruptions (AI etc).

### How these drivers impact the Future of Work?

- **Economic Impact:** Shift in job types from routine, manual jobs to high-skill, knowledge-based and service-oriented roles, **Jobs to be replaced by AI, Productivity boost, Job growth.**
- **Workforce & Skills Impact:** Reskilling & upskilling, Skill Instability.
- **Social Impact:** Wage and opportunity gaps, **Gender inequality, Tribal development.**

### Initiatives taken by Government for Future of Work

- **Skilling, Upskilling and Reskilling**
  - ➔ **Pradhan Mantri Kaushal Vikas Yojana (PMKVY).**
  - ➔ **FutureSkills Prime** is a digital skilling initiative by NASSCOM & MEITY.
- **For adoption of New & Emerging Technologies:** AI for India 2030 initiative.
  - ➔ **National Mission on Interdisciplinary Cyber Physical System (NM-ICPS)**
- **For Health and Well-being:** National Tele Mental Health Programme.

## 3.13. DIGITAL INDIA MISSION

### Why in the News?

India celebrated **10<sup>th</sup> year of the Digital India Mission** launched in 2015.

### About Digital India Mission

- **Implemented by** Ministry of Electronics and Information Technology (MeiTY).
- **Aims** to build a digitally empowered society and knowledge economy through PPPs.
- Its vision rests on three areas—digital infrastructure, governance on demand, and digital empowerment—implemented via nine pillars including broadband highways, e-kranti, IT for jobs, and e-governance.
- **Achievements:** India ranks 3rd in digital economy, internet access rose 285%, leads global real-time payments (49% in 2023), and launched inclusivity measures like BHASHINI (30+ languages).
- **Challenges:** Low digital literacy (38% households), poor rural internet and outdated broadband norms, rising cyber risks (₹220 mn average breach cost in 2025), and gaps in healthcare digitization.
- **Way Forward:** Fast-track BharatNet, improve broadband quality, expand e-services, strengthen cybersecurity, and integrate digital literacy in curricula.

## 3.14. BLUE ECONOMY

### Why in the News?

The **Ministry of Earth Sciences** released a white paper titled, **“Transforming India’s Blue Economy: Innovation and Sustainable Growth”**.

### Blue Economy in India

- **Definition:** **Blue economy** refers to **exploring and optimizing** the potential of oceans and seas under India’s legal jurisdiction **for socio-economic development, environmental sustainability, and national security.**
- **Potential:** India’s **coastline (11098 km)** and large **Exclusive Economic Zone (EEZ) of 2.4 million sq. km.**
- **Current Status:** India’s blue economy contributes **4% of its GDP**, Handles **95% of its trade by volume**; **12 major (Vadhavan Port in Maharashtra will be 13<sup>th</sup> major port) and 200 minor ports**; **by 2035**, India’s **coastal shipping modal share** is expected to grow from **6% to 33%.**

### Challenges related to Blue Economy in India

- **Environmental:** Climate change, overfishing, marine pollution, and unplanned coastal tourism.
- **Policy & Governance:** Weak enforcement of global commitments, outdated frameworks for deep-sea mining, renewables, and biotech.
- **Technology & Infrastructure:** Gaps in fisheries cold chain, low commercialization of marine biotech, and limited deep-sea exploration tech.
- **Finance & Investment:** Low private investment, weak start-up ecosystem, and insurance gaps.
- **Social & Equity:** Skill shortages in ports/biotech/deep-sea operations and poor inclusion of marginalized groups.

### Indian maritime initiatives

- **Fisheries and Aquaculture Infrastructure Development Fund (FIDF).**
- **Deep Ocean Mission:** Develops technologies for deep ocean exploration.
- **Coastal Regulation Zone (CRZ) Notification, 2019:** Protects coastal areas and marine waters.
- **PM Matsya Sampada Yojana:** Promotes sustainable fisheries and aquaculture.
- **Blue Revolution:** Increases fish production and productivity.
- **Maritime India Vision:** Provides a comprehensive maritime sector framework.

### Successful Case Studies related to Blue Economy of India

- **Kochi's Smart Port Transformation** through Digital Twin Integration (Virtual Port)
- **Alang, Gujarat: Transforming Shipbreaking** into a Circular Economy Model

### Conclusion

Targeted investments in green technologies, resilient infrastructure, and skill development, Sustainable resource management and inclusive participation, innovative financing models like blue bonds, carbon credit markets, and public-private partnerships will mobilize capital.

## 3.15. MINES AND MINERALS (DEVELOPMENT AND REGULATION) AMENDMENT ACT, 2025

### Why in the News?

**Mines and Minerals (Development and Regulation) Amendment Act, 2025** was passed by Parliament.

### More on the News

- The act amends **Mines and Minerals (Development and Regulation) Act, 1957.**
- The Act was last amended in 2023 with provisions: Introduction of **a new list of 24 critical and strategic minerals**, empowering **central government** to auction mineral concessions.

### Why Critical/Strategic minerals are increasingly becoming important for India?

- **Chinese control on Supply chain:** ~60-70% of rare earth production.
- **Clean Energy Transition and Climate Goals:** E.g. **Silicon, Tellurium, Indium**, used in photovoltaic (PV) cells.
- **Electric Mobility:** E.g. Lithium, Nickel & Cobalt are key materials used in lithium-ion batteries.
- **National Security and Defence Capabilities.**
- **Securing Digital Sovereignty:** E.g. Silicon forms the basis of microchips.
- **Accelerating SDG gains:** E.g. Chile used copper revenues to support **poverty reduction (SDG 1) & improved health services (SDG 3).**

### Key amendments

- **National Mineral Exploration and Development Trust (NMEDT):** Replaces earlier National Mineral Exploration Trust (NMET) with widened scope and territorial domain.
- **Inclusion of other minerals in a mining lease:** No additional amount needs to be paid for inclusion of critical and strategic minerals, and other specified minerals; **Removal of limit on sale for captive mines.**
- **Inclusion of contiguous area:** Allows for one-time extension of area under a mining lease.



- **Establishment of Mineral Exchanges:** Establishes authority to register and regulate mineral exchanges, Empowers Central government to frame rules, Promote investment in mining sector.

## 3.16. INCOME TAX ACT 2025

### Why in the News?

The President has given her assent to the **Income Tax Act 2025 which replaces the Income-Tax Act, 1961.**

### Key highlight of the Act

- **Comes into force** from 1st April 2026; shorter and simpler language.
- **Core tax stability:** rates, regimes, offences, and most definitions unchanged.
- Government **empowered to frame new schemes** for efficiency and transparency.
- **Undisclosed income expanded** to cover virtual digital assets.
- **Tax authorities allowed access** to virtual digital spaces during searches.
- **Dispute resolution panel introduced** for transfer pricing, non-residents, and foreign companies.
- **Pending proceedings to continue** under old law.
- Government may enter **tax treaties to avoid** double taxation.

**Related News:** President has given her **assent to Taxation Laws (Amendment) Act, 2025** which modify existing tax laws, primarily Income-tax Act, 1961, and Finance Act, 2025.

- **Key features of the Act:** Exemption for the Unified Pension System (UPS), Tax Benefit to Public Investment Funds (PIF) of Saudi Arabia & subsidiaries, Block Assessment in Search Cases.

## 3.17. INDIAN PORTS ACT, 2025

### Why in the News?

The President of India has given her assent to the Indian Ports Act, 2025 which replaces the Indian Ports Act, 1908.

### Indian Ports Act 2025

- It seeks to **consolidate the law relating to ports, promote integrated port development**, facilitate ease of doing business and ensure optimum utilisation of India's coastline.

### Key features of the Act

- **Maritime State Development Council (MSDC):** Statutory body advising on port growth, connectivity, and competition; chaired by Union Minister of Ports.
- **State Maritime Boards (SMB):** Administer non-major ports in respective states.
- **Dispute Resolution:** State-level committees adjudicate port disputes.
- **Port Tariffs:** Major ports set by Board of Major Port Authority; others by SMB or concessionaires.
- **Port Officer:** Conservator appointed to manage berthing, mooring, and vessel movements.
- **Mega Ports:** Central Government can classify ports as mega ports without changing their original status.
- **Safety & Disaster Management:** Requires emergency preparedness and response plans.
- **Environmental Compliance:** Adherence to MARPOL and BWM Conventions.
- **Penalties & Digitalization:** Introduces electronic integration of port data.
- **Ownership Changes:** Prior Central Government clearance required for substantial ownership changes.
- **Exclusions:** Act excludes military, non-commercial government, Navy/Coast Guard, and foreign war vessels.

### Ports in India

- **Port Network:** 12 major ports (13th under construction at Vadhavan) and ~200 non-major ports.
  - ➔ Major ports: Central Government-owned, Non-major ports: Managed by State.
- **Maritime Trade:** Handles 95% of volume and 70% of trade value; major ports 53%, non-major 47%.

- **Productivity Improvements** (FY15–FY25): Turnaround Time reduced 48% (96 → 49.5 hrs), Idle time dropped 29% (23.1% → 16.3%).

### Development Initiatives:

- Sagarmala (2015) for port-led development; Maritime India Vision 2030 to enhance sector performance; Major Ports Authority Act, 2021 for regulation and planning; 100% FDI allowed in port construction and maintenance under automatic route.

## 3.17.1. 10 Years of Sagarmala Programme

### Why in the News?

**Sagarmala Programme** has achieved 118% growth in coastal shipping over the last decade.

### About Sagarmala Programme

- **Ministry & Launch:** 2015, Ministry of Ports, Shipping, and Waterways (MoPSW).
- **Aim:** Boost economic development via India's 11,098 km coastline and 14,500 km navigable waterways.
- **Key Objectives:** Reduce logistics cost, enhance domestic waterways, create jobs, and develop maritime skills.
- **Funding:** PPP, MoPSW resources, grants for social-impact projects, and equity via SPVs.
- **Sagarmala 2.0 (2025):** Focus on shipbuilding, repair, recycling, and port modernization.
- **Components and Achievement:**
  - ➔ **Port Modernization & New Port Development:** 9 Indian ports in global top 100
  - ➔ **Port Connectivity Enhancement:** Over 40 lakh passengers benefited
  - ➔ **Port-Linked Industrialization**
  - ➔ **Coastal Community Development:** Projects worth ₹5.79 lakh crore identified; ₹1.41 lakh crore completed
  - ➔ **Coastal Shipping & Inland Waterways Promotion:** cargo movement surged 700%

### Various initiatives taken under Sagarmala Programme

- Sagarmala Startup Innovation Initiative (S2I2)
- Center of Excellence in Maritime and Ship Building (CEMS)
- Coastal Berth Scheme

## 3.18. AVIATION SAFETY

### Why in the News?

The **Aircraft Accident Investigation Bureau (AAIB)** released its preliminary report on the recent fatal plane crash in Ahmedabad.

### More on News

- The report detailed the timing of the MAYDAY call—used in life-threatening emergencies—on emergency frequencies 121.5 MHz and 243 MHz.
- Black Boxes were recovered and analyzed by the AAIB Lab.
  - ➔ **Black Box** includes the Flight Data Recorder (e.g., speed, altitude, engine performance) and Cockpit Voice Recorder.
  - ➔ Bright orange and built from durable materials like steel/titanium for resilience and visibility.

### Institutional Frameworks for Aviation Security in India

- **DGCA:** Regulates civil aviation safety, airworthiness, and coordinates with ICAO.
- **AERA:** Regulates tariffs and service standards at major airports.
- **BCAS:** Sets aviation security norms under ICAO's Annex 17 on preventing unlawful interference.
- **AAIB:** Investigates aircraft accidents/incidents involving aircraft over 2250 kg AUW or turbojets; has unrestricted evidence access under 2017 rules.
  - ➔ DGCA investigates serious incidents involving smaller aircraft (<2250 kg).

## Issues and recommendations of aviation security by the Parliamentary Standing Committee on Transport, Tourism and Culture

Domain	Challenges	Recommendations
<b>Capital outlay</b>	DGCA gets ₹30 crore (~50% of aviation capital budget), limiting security and investigation resources.	Ensure balanced fund allocation to address critical gaps.
<b>Manpower Shortage</b>	Vacancies in <b>DGCA, BCAS and AAI</b> : 53.8%, 34.7% and 17% respectively	Expedite hiring and adopt long-term workforce planning.
<b>UDAN</b>	32% fund cut despite expansion needs.	Review funding to match regional infrastructure demands.
<b>Oversight</b>	Reliance on general budgets; lacks sustainable funding.	Create Integrated Safety Mechanism for coordinated oversight.
<b>Navigation</b>	Smog-induced disruptions.	Install of <b>Instrument Landing System (ILS)</b> at all airports
<b>Cabin safety</b>	Poor materials and outdated technology.	Form Aviation Interior Quality Commission for standard enforcement.

### Conclusion

India has aligned its regulations with ICAO safety standards and earned audit appreciation. The Delhi Declaration (2024) demonstrates India's commitment to Open Skies policy. However, recent aviation incidents require thorough investigation to ensure sector safety and prevent recurrence.

## 3.19. COMPETITION COMMISSION OF INDIA

### Why in the News?

**Standing Committee on Finance** tabled a report titled **Evolving Role of Competition Commission of India in the Economy, particularly the Digital Landscape**, before parliament.

### Competition Commission of India

- **Established:** 2003 under Competition Act, 2002; operational from 2009.
- **Ministry:** Falls under Ministry of Corporate Affairs (MCA).
- **Composition:** Chairperson and 6 members appointed by Central Government.
- **Appellate Authority:** NCLAT under Companies Act, 2013 for Competition Act matters.

### Role of CCI

- Eliminate practices having adverse effect on competition
- Protect the interests of consumers
- Advise the government on competition issues
- **Inquire, investigate, pass orders and impose penalty on anti-competitive practices**
- **Regulate Mergers**
- **Adapting to evolving challenges: E.g., Digital Markets Division (DMD)** constituted to cope up with challenges posed by digitization to fair competition

### Evolving Challenges before CCI

- **Digitization:** Tech firms as gatekeepers, network effects (e.g., WhatsApp data policy), data advantage by big platforms (e.g., Amazon), ecosystem dominance (e.g., Apple), etc.
- **Policy Gaps:** National Competition Policy (2011) yet to be enforced; concerns over Digital Competition Bill (broad thresholds, overlap with DPDP Act).
- **Cross-Jurisdictional Issues:** Need for collaboration with global regulators in digital markets.
- **Resource & Capacity Gaps:** Only 113/195 posts filled; lack of technical expertise like AI.
- **Enforcement Effectiveness:** Many CCI penalties stayed or dismissed by appellate courts.

- **MSMEs:** ₹2,000 crore deal value threshold allows large firms to acquire MSMEs without scrutiny.

### Recent Initiatives to streamline competition

- **Competition (Amendment) Act, 2023:** M&As above ₹2,000 crore notified, voluntary settlement mechanism, appeals require 25% penalty deposit.
- **Digital Personal Data Protection Act, 2023:** Regulates personal data and digital firm practices.

### Way Forward (recommendations of the committee)

- **Digital Competition Regulation:** Conduct market studies and implement National Competition Policy.
- **Best Practices:** Learn from EU Digital Markets Act to ensure fair gatekeeper behavior.
- **Lower DVT for MSMEs:** Enable acquisitions oversight, proactive CCI action, data access for MSMEs.
- **Institutional Capacity:** Increase CCI strength, invest in training, and foster international collaboration.
- **Refine Digital Competition Bill:** Address broad thresholds and other concerns.

## 3.20. PRIME MINISTER DHAN-DHAANYA KRISHI YOJANA (PMDDKY)

### Why in the news?

In pursuance of the Union Budget 2025–26 announcement, PMDDKY was approved for a period of six years.

### Salient Features of the scheme:

- **Budgetary Allocation:** ₹24,000 crore annually for a period of six years.
- **Implemented By** Ministry of Agriculture and Farmers' Welfare and monitored **through three-tier structure National-level oversight bodies**, State-level nodal committees, and District Dhan Dhaanya Samitis with **NITI Aayog review**.
- **Saturation-based convergence:** **Consolidates central, state** schemes and local partnerships.
- **Progress tracking:** Using 117 Key Performance Indicators (KPIs).
- **Transparency and Accountability:** Digital dashboard, farmer app, and district ranking system.
- **Criteria and Selection of Districts:** NITI Aayog will finalize 100 districts based on **Low Crop Productivity, Moderate Cropping Intensity, Credit Access, Geographic Representation**.

### Significance of PMDDKY

- **Provides access to high-yielding seeds**, bio-fertilizers, and mechanized tools like seed drills.
- **Drip and sprinkler systems** to ensure water availability, especially in dry regions.
- **Provide subsidies** and loans through Kisan Credit Cards or NABARD.
- **Provision of Village and block-level warehouses** and cold storage to prevent spoilage.
- **Promotes diversification** into high-value crops, direct market access through digital platforms like e-NAM etc.
- **Promotes Organic farming**, climate-resilient crops.
- **Includes Krishi Vigyan Kendras (KVKs)**, agricultural universities workshops, overseas training etc.

## 3.21. COMPETITION COMMISSION OF INDIA

### Why in the News?

Parliamentary Standing Committee in its report has flagged slow progress of work under PMGSY in Left Wing Extremism (LWE) affected areas.

### About PMGSY

- **Ministry & Launch:** Ministry of Rural Development; launched December 2000 as Centrally Sponsored Scheme.
- **Objective:** Provide all-weather road connectivity to unconnected rural habitations for poverty alleviation.
- **Habitation Criteria:** Population 500+ in plains, 250+ in North-Eastern/Hill states, 100+ in LWE-affected districts (Census 2011).



### Salient Features of PMGSY:

- **Institutional Arrangements:** NRIDA provides technical support; SRRDAs manage state-level implementation.
- **Decentralized Planning:** Involves Panchayati Raj Institutions, MLAs, and MPs.
- **Monitoring & Grievance Redressal:**
  - ➔ **OMMAS:** Web-based system for transparency and accountability.
  - ➔ **eMARG:** Geo-tagged verification of road maintenance and contractor performance.
  - ➔ **Meri Sadak App:** Addresses slow, abandoned, or poor-quality work.
- **Green Technologies & New Materials:** Fly ash, lime, polymers, Portland Cement Concrete, Cold Mix Asphalt, waste plastic, coir geo-textiles, iron/copper/steel slag, and bioengineering (jute/bamboo).

### Recommendations of Committee

- Form a committee to assess low-bid impact on road quality.
- Retain difference between minimum and quoted bid as security until quality compliance.
- DoRD to enforce strict quality norms and improve monitoring/accountability.
- Shortlist/blacklist erring contractors and ensure roads reach actual unconnected habitations.
- Strengthen coordination and monitoring mechanisms within DoRD.
- Address challenges like insurgency, tough terrain, law-and-order, and forest clearances.
- Implement innovative, area-specific solutions for timely completion.

## 3.22. ATAL MISSION FOR REJUVENATION AND URBAN TRANSFORMATION (AMRUT)

### Why in the News?

The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme has completed ten years since its launch.

### About AMRUT

- **Ministry:** Ministry of Housing and Urban Affairs
- **Type:** Centrally Sponsored Scheme
- **Coverage:** Initially launched in 500 cities for improving water supply, sewerage, stormwater drainage, green spaces, and non-motorised urban transport.
- **AMRUT 2.0 (2021):** Focuses on water and sewerage services, aiming to provide tap water to all statutory towns.

### Key Components of AMRUT 2.0

- Pey Jal Survekshan, Behaviour Change Communication, Technology Sub-Mission
- Emphasis on PPP (in cities with over 1 million population), community participation (especially women's SHGs), and promoting the circular economy of water.
- Monitored by Apex Committee (national) and SHPSC (state level).

### Achievements

- 2.03 crore tap and 1.5 crore sewer connections
- 99 lakh LED streetlights installed
- 6,800+ acres of green space and 3,000 parks developed

**Limitations:** Weak health outcomes, implementation delays, environmental issues, limited coverage, and scheme overlaps.

### Conclusion

Marking a decade of strengthening urban water and sanitation infrastructure, AMRUT should now adopt a people-centric approach with improved governance through ULB capacity building. Expanding to smaller towns while integrating nature-based solutions will ensure sustainable urban development.

## 3.23. RESEARCH DEVELOPMENT AND INNOVATION (RDI) SCHEME

### Why in the News?

The Union Cabinet recently approved RDI Scheme.

### About RDI Scheme

- **Nodal Department:** Department of Science and Technology.
- **Key objective of the scheme**
  - ➔ **Encourage the private sector to scale up** research, development, and innovation (RDI) in sunrise and other domains.
  - ➔ **Finance transformative projects** at higher levels of Technology Readiness Levels (TRL)
  - ➔ **Support acquisition of technologies.**
  - ➔ Facilitate setting up of a Deep-Tech Fund of Funds.
- **Funding and Financial Support**
  - ➔ **Total Budget:** ₹1 lakh crore
  - ➔ **Modes of Financing:** Long-term loan at low or nil interest rates, Equity infusion, especially in case of startups, Contributions to Deep-Tech Fund of Funds.
  - ➔ **Exclusions:** Grants and short-term loans.
  - ➔ **Coverage**
    - ❖ Financing can cover up to 50% of assessed project cost for transformative RDI projects at TRLs 4 and above;
    - ❖ Exceptions may be approved by the Empowered Group of Secretaries (EGoS)
- **Implementation Structure**
  - ➔ The governing board of ANRF will provide strategic direction to RDI Scheme.
  - ➔ **Second-Level Fund Managers:** May include Alternate Investment Funds (AIFs), Development Finance Institutions (DFIs), IIT Research Parks, etc.

### Significance of the Scheme

- Recognize Private sector role in R&D
- Catalyst for Private Sector Investment
- Driving Commercialization
- Fostering Self-Reliance
- Creates and maintains jobs

### Challenges in Research and Development in India

- **Low R&D Investment and Diversification:** 0.6–0.7% of GDP over the past two decades.
- **Limited State-level R&D funding:** During 2020–21, States accounted for only 6.7% of national R&D spending.
- **Limited Collaboration:** Underdeveloped **“Triple Helix” model** (Interaction between Academia, Industry, and Government).
- Underutilization of Funds, Insufficient Recognition of Scientific Talent

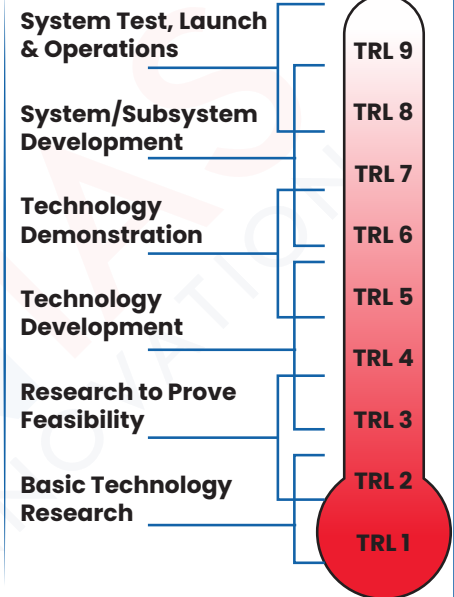
### Way forward

- Increase and Diversify R&D Fund: Raise Gross Expenditure on R&D (GERD) to at least 2% of GDP by 2030.
- State-Specific S&T Need Mapping
- Strengthen Institutional Structures like CSIR innovation hubs.
- Foster Industry–Academia Collaboration: Like ISRO–industry partnerships in satellite manufacturing.
- Efficient Resource Utilisation: Adopt output-based funding.

### Technology Readiness Levels (TRL)

❖ **Technology Readiness Levels (TRLs)** are a 9-point scale, originally developed by **NASA**

❖ It used to assess how **mature a technology** is—from the idea stage (TRL-1) to market-ready (TRL-9).



- Recognise and Retain Scientific Talent: Expand fellowships like Prime Minister's Research Fellowship (PMRF) and introduce global talent repatriation schemes.

**Government initiatives to boost R&D in India:** Anusandhan National Research Foundation (ANRF), National AI Mission, Atal Innovation Mission (AIM), National Quantum Mission (NQM).

## 3.24. FINANCING FOR SUSTAINABLE DEVELOPMENT

### Why in the News?

The 4th International Conference on Financing for Development (FFD4) recently adopted the final outcome document, Compromiso de Sevilla (Sevilla Commitment), to address the SDG financing gap in developing countries.

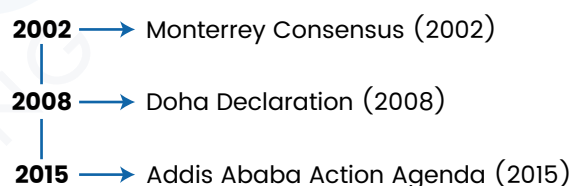
### More on News

- The Sevilla Commitment, adopted by consensus (excluding the U.S.), presents a roadmap to bridge the \$4 trillion annual SDG financing gap.
- It builds upon previous frameworks like the Monterrey Consensus, Doha Declaration, and Addis Ababa Action Agenda.
- India proposed a seven-point strategy to boost private investment, including strengthening multilateral banks, reforming credit ratings, developing domestic markets, and scaling blended finance.

### Need for Financing Sustainable Development

- **Financing Gap:** Annual SDG financing shortfall now stands at \$4 trillion.
- **Climate Investment:** Energy investment needs to grow 40% by 2030. (OECD, 2025)
- **Wealth Inequality:** Top 1% own more wealth than 95% combined. (Oxfam, 2024)
- **Tax Inequity:** Billionaires pay only 0.3% in real taxes. (Oxfam, 2025)
- **Debt Burden:** 40% of extreme poor live in debt-trapped nations. (FSDR 2023)

### Evolution of Financing for Sustainable Development



### Impediments

- Shrinking fiscal space; 46 nations spend more on interest than on health/education.
- Unequal SDR allocation: LDCs get only 2.5%.
- Rising geo-economic fragmentation and illicit financial flows.
- Gender disparity in employment and wages.

### Steps Taken Under Sevilla Commitment

- **Debt Solutions:**
  - ➔ Debt-for-Development Swaps, Pause Clause Alliance, and Sevilla Forum on Debt.
- **Catalysing Investment:**
  - ➔ Blended Finance (SCALED), effective taxation of HNWIs, and Global Solidarity Levies.
- **Architecture Reform:**
  - ➔ Local Currency Lending Platforms, and Pre-arranged Disaster Financing coalition led by the UK.

### Conclusion

Aligning finance with SDGs requires creating conducive environments for private investment, strengthening public development banks, and reforming multilateral systems through fiscal incentives, long-term funding, and updated WTO rules and investment treaties.

### 3.24.1. Sustainable Development Report (2025)

### Why in the News?

India has, for the first time, entered the top 100 in the SDG Index, ranking 99th out of 167 countries in the Sustainable Development Report (2025).

### More on the News

- India improved from 120th (2021) to 99th (2025) with a score of 67.
- Finland tops the index, followed by Sweden and Denmark.
- Regional peers: Bhutan (74), Nepal (85), Maldives (53), Sri Lanka (93), Bangladesh (114), Pakistan (140).
- A new indicator under SDG 2 on child dietary diversity was added.
- No SDG is on track for full achievement by 2030.

### About SDG Index

- Released by the UN Sustainable Development Solutions Network (UNSDSN) since 2016.
- Measures progress toward 17 SDGs on a 0–100 scale.

Key Indicators of India's Performance (As per 2025 SDR)	
<b>SDG1</b>	Poverty headcount ratio at \$3.65/day is <b>5.5%</b>
<b>SDG2</b>	Prevalence of undernourishment- <b>13.7%</b>
<b>SDG3</b>	Maternal mortality ratio (Per 100,000 live births) is <b>80.5</b>
<b>SDG4</b>	Net primary enrollment rate - <b>99.9%</b>
<b>SDG5</b>	<ul style="list-style-type: none"> <li>➤ Ratio of female-to-male labor force participation rate - <b>43%</b></li> <li>➤ Seats held by women in parliament - <b>14%</b></li> </ul>
<b>SDG6</b>	Population using at least basic drinking water services - <b>93%</b>
<b>SDG7</b>	<ul style="list-style-type: none"> <li>➤ Population with access to electricity - <b>99%</b></li> <li>➤ Population with access to clean fuels and technology for cooking - <b>74%</b></li> </ul>
<b>SDG9</b>	<ul style="list-style-type: none"> <li>➤ Rural population with access to all-season roads - <b>99%</b></li> <li>➤ Population using the internet - <b>56%</b></li> </ul>
<b>SDG10</b>	Gini coefficient in India is 34.8.

## 3.25. ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG)

### Why in the News?

Parliamentary standing committee on finance recommended improving ESG framework in India.

### What is ESG Framework?

- ESG (environmental, social, and governance) is a framework for evaluating a company's sustainability and ethical practices across environmental impact, social responsibility, and corporate governance.

### Significance of ESG Framework:

- **Global Alignment:** Supports SDGs and Paris Agreement goals.
- **Financial Access:** Attracts ESG-focused investors and enables green financing.
- **Operational Efficiency:** Lowers costs via sustainable practices like renewable energy.
- **Competitive Advantage:** Promotes innovation and resilience while reducing environmental/social impact.
- **Brand Value:** Enhances societal impact and stakeholder trust.

### Challenges of ESG Reporting in India (Highlighted by the Parliamentary Standing Committee):

- **Persistent Risk of Greenwashing:** False or misleading claims about their ESG performance
- Inconsistent Implementation across sectors
- Difficulties faced by small businesses in adopting ESG practices
- **Other Challenges:** Lack of Awareness and Education, Integration with Business Strategy, etc.



### Other Initiatives to promote ESG in India:

- **BRSR:** SEBI framework for top 1,000 listed companies to report sustainability practices.
- **BRSR Core:** Requires disclosure of detailed value chain information.
- **NGRBCs:** Voluntary 2019 guidelines promoting ethical and sustainable business conduct.
- **CSR:** Companies meeting thresholds must spend 2% of average net profit on CSR activities under Companies Act, 2013.

### Way Forward to make ESG effective:

- **Parliamentary standing committee:** Dedicated ESG Oversight Body, Amendment to Companies Act, 2013, Independent ESG Committees
- **Other:** Set clear ESG goals, Invest in ESG Training and Capacity Building, Partner with ESG experts

## 3.26. 100TH BIRTH ANNIVERSARY OF MS SWAMINATHAN

### Why in the News?

Prime Minister addressed the M.S. Swaminathan Centenary International Conference in New Delhi.

### Key contribution of MS Swaminathan

- **Green Revolution Architect:** Introduced high-yield dwarf wheat and Indica rice varieties; developed Pusa Basmati (1989).
- **Evergreen Revolution:** Advocated sustainable productivity avoiding chemical overuse and ecological harm.
  - ➔ **Evergreen Revolution** is pro-nature and pro-poor, linking livelihood security with ecological security.
    - ◊ Key components include Ecoagriculture, Biovillages, Village Knowledge Centres, and Ethics and Equities in economic, social, and gender divides.
- **Ecological Practices:** Promoted rainwater conservation, renewable energy, climate-resilient crops, and millets.
- **Biodiversity & Legislation:** Influenced Protection of Plant Varieties & Farmers' Rights Act (2001) and Biological Diversity Act (2002).
- **Biohappiness Concept:** Linking biodiversity conservation to human well-being and nutrition.
- **Women in Agriculture:** Introduced Women Farmers' Entitlements Bill (2011) to empower women farmers.
- **Nutritional Security:** Shifted focus from food to nutrition security; promoted bio-fortified crops.
- **National Agricultural Leadership:** recommended MSP  $\geq 50\%$  above cost.

## 3.27. QUICK COMMERCE IN INDIA

### Why in the news?

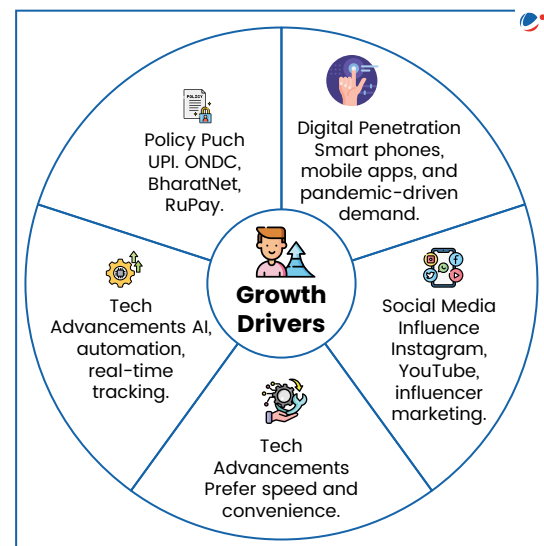
A Kearney report highlights that India's quick commerce sector is booming but is also reshaping consumer behavior.

### What is Quick Commerce?

- Rapid delivery of goods/services, usually within an hour.
- Offers 24/7 access, reduces middlemen, and improves supply chain efficiency via hyper-local sourcing.

### Status of Quick Commerce

- **Growth:** Expected to grow 75–100% annually.
- **Market Size:** Projected to reach \$5 billion by 2025 and \$9.94 billion by 2029.
- **Key Players:** Zepto, Blinkit, Swiggy Instamart.



## Concerns

- **Instant Gratification:** Promotes impulsive buying via behavioral targeting.
- **Gig Worker Safety:** 10-minute delivery raises ethical issues.

## 3.28. NEWS IN SHORTS

### 3.28.1. Sagarmala Finance Corporation Limited (SMFCL)

SMFCL has become **India's first NBFC** in the maritime sector, registered with the RBI.

#### About SMFCL

- Formerly **Sagarmala Development Company Ltd.**, it is a **Mini Ratna**, Category-I CPSE under the Ministry of Ports, Shipping and Waterways.
- Now an NBFC, it will **provide customised financial products** to stakeholders like port authorities and shipping firms.
- It will also support shipbuilding, cruise tourism, renewable energy, and maritime education.

#### Other Maritime Initiatives



**DCoE:** Innovation via AI, IoT, Blockchain



**SGAR SETU:** Integrated EXIM services



**Drishti:** Supports Maritime India Vision



**Gateway to Green:** Port as green hydrogen hubs



**SOR:** Standardised tariffs

### 3.28.2. RBI tightens Co-lending norms

RBI issued revised **directions for Co-lending Arrangements (CLA)**.

- CLAs allow regulated entities (REs) like banks and NBFCs to jointly lend to borrowers, complying with prudential regulations.

#### Key highlights of the revised Directions

- **Minimum Share:** Each RE must retain at least 10% of the loan.
- **Priority Sector Lending (PSL):** Each lender can claim PSL benefits for its portion if the loan qualifies.
- **Uniform Asset Classification:** If one lender classifies a loan as NPA, others must follow.
- **Blended Interest Rate:** Borrowers are charged a weighted average rate based on each RE's contribution.

### 3.28.3. RBI's FREE-AI Vision for Financial Sector

RBI committee unveiled Framework for Responsible and Ethical Enablement of Artificial Intelligence (FREE-AI).

#### About FREE-AI Vision

- **Aim:** Ensure safe, fair, and accountable AI adoption in India's financial sector.
- **7 Sutras:** Foundational principles guiding AI adoption: Trust, People first, Fairness and equity, Accountability etc.
- **Dual Approach:**
  - ➔ **Fostering Innovation:** Shared infrastructure, AI Innovation Sandbox, AI policy guidance, institutional capacity building, and relaxed compliance for low-risk AI.
  - ➔ **Mitigating Risk:** Board-approved AI policies, integration into product approvals and audits, strengthened cybersecurity, AI lifecycle governance, consumer awareness.
- **Importance:**
  - ➔ AI investments in financial sector projected at ₹8 lakh crore by 2027; GenAI alone ₹1.02 lakh crore by 2033.
  - ➔ Risks include data privacy, algorithmic bias, market manipulation, cybersecurity, and governance failures that could threaten market integrity and consumer trust.

### 3.28.4. India's Retail Inflation

India's retail inflation moderated to 8 year low of 1.55% in July, 2025 due to **Favourable base effect, Decline in inflation** in items like Pulses and Products, etc. Measured by the **All India Consumer Price Index (CPI)**.

#### About CPI

- **Meaning:** Measures change in general price level of goods and services acquired by households.
- **Significance:** Key inflation indicator, used for inflation targeting, national account deflators, and DA indexing.
- **Publisher:** Central Statistical Office (CSO), released on 12th of each month.
- **Components:** CPI for Industrial Workers (IW), Agricultural Labourers (AL), Rural Labourers (RL), Urban Non-Manual Employees (UNME).
- **Base Year:** 2012.
- **Comparison with WPI:** CPI emphasizes food; WPI emphasizes fuel; both differ in weighting patterns.

### 3.28.5. Small Finance Bank Universal License

RBI granted in-principle approval for AU Small Finance Bank to transition from SFB to universal bank.

- **Universal Banking Licence:** Allows offering commercial and investment banking services under one entity.
- **Historical Context:** Last universal banking licences granted in 2014 to Bandhan Bank and IDFC Bank (now IDFC First Bank).

#### About Small Finance Bank (SFB)

- **Genesis:** Announced in the Union budget of 2014-15.
- **Objective:** Financial Inclusion.
- **Registration:** Registered as a public limited company under the Companies Act, 2013.
- **Licensing:** Licensed and governed under the Banking Regulation Act, 1949.
- **Capital Requirement:** 200 crore (except for some SFBs).
- **Eligible promoters:** Resident individuals/professionals with 10 years of experience in banking and finance.

### 3.28.6. Priority Sector Lending (PSL) Norms for Small Finance Banks (SFBs)

The RBI, under Section 22(1) of the Banking Regulation Act, 1949, issued new rules revising Priority Sector Lending (PSL) norms for Small Finance Banks (SFBs).

#### Key Change in PSL Requirements

- **Earlier:** SFBs had to lend 75% of ANBC (40% mandatory to PSL sectors, 35% flexible).
- **New Rule (from FY 2025-26):** Total PSL reduced to 60% of ANBC (40% mandatory to PSL, 20% flexible for secured non-PSL loans).

#### About PSL

- Introduced in the 1970s to channel credit to key sectors like agriculture, MSMEs, education, housing, etc.
- Applies to commercial banks, SFBs, RRBs, LABs, and UCBs.

#### About SFBs

- Launched in Budget 2014-15 to promote financial inclusion.
- Require ₹200 crore minimum net worth (₹100 crore for UCBs transitioning).

### 3.28.7. Sovereign Credit Ratings

S&P upgraded India's **long-term Sovereign Credit Rating to 'BBB' from 'BBB-'** and its short-term rating to 'A-2' from 'A-3', with a **Stable Outlook**.

#### About Sovereign Credit Ratings (SCR)

- It is **independent evaluation of a country's creditworthiness** by agencies like S&P, Fitch, Moody's.

- **Rating Grades:** Investment grade (BBB- to AAA) vs. speculative grade; higher grades reduce default risk.
- **Significance:** Facilitates global capital access, foreign investment, and lowers borrowing costs.
- **Issues:** Potential biases, conflicts of interest, and rating ceilings limiting domestic corporate ratings.

### 3.28.8. Alternative Investment Fund

RBI capped investment by Regulated Entities at 20% of the corpus of an AIF scheme.

#### About Alternative Investment Fund (AIF)

- Privately pooled investment vehicles regulated by SEBI (2012) that collect funds from sophisticated investors, Indian or foreign, for defined investment policies.

#### Categories

- **Category I:** Invest in start-ups, SMEs, infra, socially beneficial sectors (e.g., VC, angel funds).
- **Category II:** No leverage, only operational debt (e.g., PE, debt, real estate funds).
- **Category III:** Use leverage, incl. derivatives (e.g., hedge funds, PIPE).

### 3.28.9. GIFT City-like Financial Centers

**Parliamentary Standing Committee on Finance** has recommended for **development of more GIFT City-like Financial Centers**.

#### About GIFT City IFSC (Gandhinagar, Gujarat)

- **Establishment:** India's first IFSC at GIFT City, Gujarat; SEZ since 2015; non-resident zone under FEMA.
- **Functions:** Provides onshore/offshore financial services in foreign currency; favorable tax structure; trusted regulatory environment; ease of doing business; promotes inbound/outbound investment.
- **Regulator:** IFSCA (est. 2020 under IFSCA Act, 2019) oversees financial products, services, and institutions.
- **Current Status:** Ranked 46th in Global Financial Centres Index (up 5 ranks) and 45th in FinTech rankings.

### 3.28.10. Financial Conditions Index (FCI)

A study of RBI has proposed the construction of a FCI for India.

#### About Financial Conditions Index (FCI)

- It measures relative tightness/ease of conditions since 2012 using 5 segments—money, G-sec, corporate bonds, forex, equity. Higher values mean tighter conditions.

### 3.28.11. Digital Payment Intelligence Platform (DPIP)

DPIP will be developed as a Digital Public Infrastructure (DPI) under RBI's guidance to enhance fraud risk management in banking.

### About DPIP

- Aims to facilitate real-time intelligence sharing and coordination among banks using advanced technologies.
- RBIH will build its prototype in consultation with 5–10 public and private banks.
- A committee led by Shri A.P. Hota will examine DPIP's setup.
- **Need:** Banking frauds rose to ₹36,014 crore in FY25 (from ₹12,230 crore in FY24).

### Other RBI Initiatives

- Mandatory multi-factor authentication
- Zero liability for customers
- bank.in and fin.in to verify official banking websites.

### 3.28.12. Digital Payments Index (DPI)

Over 65,000 crore transactions worth ₹12,000 lakh crore in 6 years.

### About Digital Payments Index (DPI)

- Published semi-annually by RBI to track digital adoption. Parameters: Enablers, Infrastructure (demand & supply), Performance, Consumer Centricity.

### 3.28.13. DoT Releases Draft National Telecom Policy (NTP)–2025

**NTP–2025** seeks to build on progress made under **National Digital Communications Policy 2018**.

- It addresses emerging challenges by next-generation technologies such as **5G/6G, Artificial Intelligence (AI)**.

### About NTP–2025

- **Vision:** Transform India into a digitally empowered economy with universal, secure, and sustainable connectivity.
- **Mission:**
  - ➔ **Connectivity:** Expand networks, improve quality, ensure inclusion.
  - ➔ **Innovation:** Promote R&D, startups, and academia–industry linkages.
  - ➔ **Domestic Manufacturing:** Boost design-led growth, skills, and investment.
  - ➔ **Security:** Build resilient, trusted telecom ecosystem.
  - ➔ **Ease of Living/Business:** Simplify access and foster digital inclusion.
  - ➔ **Sustainability:** Adopt green tech, renewable energy, and circular economy.

### 3.28.14. Modified Interest Subvention Scheme (MISS)

The Union Cabinet approved the continuation of the Interest Subvention (IS) component under the Modified Interest Subvention Scheme (MISS) for 2025–26.

### About MISS

- **Type:** Central Sector Scheme
- **Ministry:** Agriculture & Farmers Welfare
- Provides short-term KCC loans up to ₹3 lakh at 7% interest; 1.5% subvention to banks.
- Prompt Repayment Incentive (PRI) of 3% lowers interest to 4% for timely repayment.
- Loans for animal husbandry/fisheries eligible up to ₹2 lakh.

### Significance

- Supports ~5.9 crore farmers (Feb 2025), ensures credit access, prevents distress selling, and funds rural infrastructure.

### About KCC

- Launched in 1998; expanded in 2019 to allied sectors.
- Supports cultivation, post-harvest, marketing, and consumption needs.
- Issued by various public/private/rural banks; valid for 5 years.
- Credit limits based on cropping patterns; tracked via Kisan Rin Portal.

### 3.28.15. Indigenous Polar Research Vessel (PRV)

India is set to build its first indigenous Polar Research Vehicle (PRV), with GRSE signing an MoU with Norway's Kongsberg Oslo.

### About PRV

A **specialised ship** for **polar region research**, equipped with advanced tools to **explore ocean depths and marine ecosystems**.

### Significance for India

- Will support NCOPR's research missions in Antarctica (Maitri, Bharati) and the Arctic (Himadri).
- Strengthens India's geo-political and geo-economic presence in polar regions.
- Aligns with SAGAR, MAHASAGAR, and Sagarmala 2.0 under Maritime Amrit Kaal Vision 2047 to boost indigenous shipbuilding and maritime capabilities.
- Key for climate research, oceanography, and logistics.

### 3.28.16. Report On Value of Output from Agriculture and Allied Sectors (2011–12 To 2023–24)

The National Statistics Office (NSO) released a report detailing India's agricultural performance over the past decade.

### Key Highlights

- **GVA** in agriculture rose ~225% (current prices); GVO up 54.6% (constant prices) from 2011–12 to 2023–24.



- **Crop sector** contributed 54.1% to total GVO in 2023–24; paddy and wheat formed 85% of cereal GVO.
- **Floriculture** GVO nearly doubled to ₹28,100 crore
- **Fishing & aquaculture** share rose to 7%.
- Madhya Pradesh leads in **Condiments & Spices** GVO.

### Initiatives

- Agriculture Infrastructure Fund, Digital Agriculture Mission, PM Matsya Sampada Yojana, MIDH, PMFBY, RKVY, etc.

### Importance

- Contributes ~16% to GDP; supports 46.1% of population; faces productivity, income, and climate challenges.

### 3.28.17. International Crops Research Institute for The Semi-Arid Tropics (ICRISAT)

ICRISAT, in partnership with RIS, launched the **ICRISAT Centre of Excellence for South-South Cooperation (ISSCA)** to boost agricultural innovation and knowledge exchange among Global South nations.

- ICRISAT also signed an MoU with **DAKSHIN**, India's initiative for development partnerships.
- RIS is a New Delhi-based autonomous policy research institute.

**ISSCA:** Premier platform aligned with India's DAKSHIN initiative to strengthen South-South cooperation in agriculture.

### About ICRISAT

- HQ: Hyderabad
- Established: 1970s under CGIAR
- Achievements: Africa Food Prize (2021), world's first pigeon pea hybrid.

### 3.28.18. National Turmeric Board

Headquarters of National Turmeric Board was inaugurated in Nizamabad, Telangana.

### About the National Turmeric Board

- **Ministry:** Commerce & Industry
- **Aim:** To lead and coordinate turmeric sector development with the Spices Board and other agencies.
- **Composition:** Chairperson (Central Govt.), members from key ministries, state reps (on rotation), research institutions, turmeric farmers/exporters.
- **Roles:** Promote R&D, exports, value addition, awareness, yield, and market expansion.

### About Turmeric

- Known as the "Golden Spice"; grown in tropical climates with well-drained soils.
- Antioxidant and anti-inflammatory.

- **India:** Top producer and exporter (70% of global output).
- **Key states:** Telangana, Maharashtra, Tamil Nadu, Andhra Pradesh.
- **GI-tagged varieties:** Erode, Sangli, Waigaon, Lakadong.

### 3.28.19. Nano Fertilizers

Indian Farmers Fertilizer Cooperative Limited (**IFFCO**) to set up its first overseas nano fertiliser plant in Brazil.

- IFFCO had launched world's first '**Nano Liquid Urea**' fertiliser in 2021 & then Nano-DAP in 2023.

**About Nano Fertilizers:** Nutrients that are **encapsulated or coated within nanomaterial** (measuring 100 nanometres or less). Enables **controlled release** and its subsequent **slow diffusion into the soil**.

### Benefits

- **Promotes sustainable farming:** Reduces soil and water contamination.
- **Cost Effectiveness:** Improves nutrient absorption, reduce nutrient wastage and lower application frequency etc.

### 3.28.20. Agricultural Outlook 2025–2034 Released By Oecd–Fao

- **Released By: OECD and FAO.**
- Provides a comprehensive assessment of the ten-year prospects for agricultural commodities, markets at national, regional, and global levels.
- **Global Market Trends (2024) according to the report**
  - ➔ **Biofuels: Growth projection at 0.9% annually**, led by India, Brazil and Indonesia.
  - ➔ **Cotton: India** is set to overtake China as the top producer.

### 3.28.21. CROPIC

This initiative is part of digital innovations in agriculture for fostering financial resilience.

### About CROPIC (Collection of Real Time Observations & Photo of Crops) initiative

- Mobile app launched by **The Ministry of Agriculture** under **Pradhan Mantri Fasal Bima Yojana (PMFBY)** to capture geotagged crop photos during crop cycles.
- Uses AI-cloud platform for analysis and a dashboard for visualisation. Funded through Fund for Innovation and Technology under PMFBY to boost financial resilience in agriculture.

### 3.28.22. Steel Scrap Recycling Policy (SSRP)

Standing Committee on Coal, Mines and Steel recently released Report on Steel Scrap Recycling Policy (SSRP).



### Key Issues in Steel Scrap Sector as per Report

- No comprehensive database on steel scrap sector, No designated Nodal Ministry for steel scrap matters, Absence of formal scrap markets, Steel scrap recycling sector lacks industry status, Insufficient skill development and certification for scrap workforce, Obsolete technology used in scrap processing centres.

### Recommendations for Steel Scrap Sector

- **Develop a robust steel scrap database** and dedicated portal with updated data, policies, and international comparisons.
- **Ministry of Steel to act as the nodal agency**; collect and share state-wise, sector-wise, import/export data.
- **Formalize the informal scrap sector**; organize kabadiwalas and dismantlers into cooperatives.
- **Grant industry status to scrap recycling sector** to attract investment, create jobs, and promote skill development.
- **NSDC to launch certification courses**; train workforce and entrepreneurs for future needs.
- **Incentivize adoption of modern technologies**: AI sensors, blockchain for traceability, digital platforms connecting aggregators with steel mills.

### 3.28.23. Offshore Areas Atomic Minerals Operating Right Rules, 2025 Notified

Rules notified in accordance with provision of **Offshore Areas Mineral (Development and Regulation) Act, 2002**.

#### About the Rules

- Rules regulate exploration and mining of atomic minerals (uranium, thorium) in offshore areas, applicable only above set concentration levels. Govt-nominated entities can get licences or leases, while foreign players need prior approval.
- **Uranium**
  - ➔ **Key Reserves: Jharkhand, Andhra Pradesh, Meghalaya, Rajasthan** etc.
  - ➔ Most of uranium deposits in India small and of far lower grade.
- **Thorium**
  - ➔ India has limited resource of uranium but large resource of thorium. Monazite contains **8 – 10% thorium**.
  - ➔ The beach sands of **Kerala** and **Orissa** have rich reserves of monazite.

### 3.28.24. Aluminium and Copper

Central Government recently unveiled Aluminium and Copper Vision Documents.

#### About Vision Document

- **Aluminium & Copper Vision Documents** provide long-term strategies to meet rising domestic demand and ensure raw material security.

- **Copper Vision**: Demand to rise sixfold by 2047; target of 5 MTPA smelting/refining capacity by 2030.
- **Aluminium Vision**: Sixfold production rise by 2047; expand bauxite capacity to 150 MTPA.
- **Distribution**
  - ➔ **Aluminium/Bauxite**: India's reserves mainly in Odisha (41%), Chhattisgarh, Andhra; Odisha leads production (73%). Globally, China (58%) is top producer, followed by Australia, Brazil, India.
  - ➔ **Copper**: India's reserves—Rajasthan (52%), MP, Jharkhand; production led by MP (57%), Rajasthan (43%). Globally, Chile (19% reserves) leads, followed by Peru and Australia.

### 3.28.25. Safety in the Civil Aviation Sector

Parliamentary Standing Committee released Report on Review of Safety in the Civil Aviation Sector.

#### Key Issues as per Report

- **DGCA Staff Shortage, Persistent ATCO shortages** and high workload, **large backlog of unresolved safety findings, Persistent incidents** due to inadequate root-cause analysis, High taxation on imported parts and infrastructural limitations, **Fear of penalties** may deter reporting, undermining safety oversight.

#### Recommendations as per Report

- **Regulatory Autonomy & Capacity**: Grant DGCA full administrative and financial autonomy; establish specialized recruitment outside UPSC.
- **ATCO Fatigue & Staffing**: Implement Fatigue Risk Management System, conduct staffing audit, and expand training capacity.
- **Surveillance & Enforcement**: Introduce time-bound deficiency closure and stronger enforcement.
- **Operational Risk Management**: Conduct root-cause analyses and implement targeted remedial programs.
- **Domestic MRO Development**: Promote domestic MROs via tax rationalization, fiscal/infrastructural incentives.
- **Just Culture & Whistleblower Protection**: Establish comprehensive whistleblower protection framework.

### 3.28.26. Global Index 2025

The World Bank report titled '**Global Index 2025**' released.

#### India specific Highlights

- Account ownership near 90%. About 16% inactive accounts (vs 4% in other LMIs). Inactive accounts among both genders declined (2021–24). Barriers: device cost, poor network.

### 3.28.27. Stablecoins

GENIUS Act has been enacted in the US to establish a **regulatory framework for stablecoins**.

- Stablecoins are a type of **cryptocurrency** whose value is linked to that of another **currency, commodity**, or financial instrument. E.g., **Tether (USDT)**, is pegged to the US dollar.

### Why has the use of Stablecoins increased?

- Crypto linked to assets (currency/commodity); steadier value than volatile coins like Bitcoin.

### Regulation of Cryptocurrency or Crypto Assets in India

- Crypto assets unregulated but taxed (30% on **Virtual Digital Assets (VDAs)**, Finance Act 2022). VDAs include crypto, NFTs; in 2023, brought under PMLA for anti-money laundering oversight.

# “You are as strong as your Foundation” FOUNDATION COURSE GENERAL STUDIES

## PRELIMS CUM MAINS

- Includes comprehensive coverage of all topics for all the four papers of GS Mains, GS Prelims, CSAT and Essay
- Include All India GS Mains, Prelims, CSAT and Essay Test Series
- Comprehensive Current Affairs classes : Monthly Current Affairs classes (MCAR), Mains 365 & PT365
- Access to Sandhan Personalized Test Series with extensive collection of 25000 plus questions.
- Personalised Mentors for assessing performance of the students regularly
- Continuous Assessment: Daily assignment & weekly Mini Tests
- Access to Live as well as Recorded classes on your personal online Student Platform
- Includes Comprehensive, relevant and updated Study material
- Includes Personality Development Programme
- Duration: 12 months and 15 months (With Pre Foundation Program)
- Duration of each class: 3-4 hrs, 5-6 days a week (If need arises, classes can be held on Sundays also)



Live - online / Offline Classes

**2026, 2027 & 2028**

**DELHI : 9 SEPT, 11 AM | 18 SEPT, 8 AM | 25 SEPT, 5 PM**

**GTB Nagar Metro (Mukherjee Nagar): 22 SEPTEMBER, 6 PM**

**हिन्दी माध्यम 11 सितम्बर, 2 PM**

**AHMEDABAD: 12 JULY**

**CHANDIGARH: 18 JUNE**

**HYDERABAD: 3 SEP**

**JAIPUR: 22 SEPT**

**JODHPUR: 15 SEP**

**PUNE: 14 JULY**

**2027, 2028 & 2029**

**DELHI  
22 SEPTEMBER | 5 PM**

**BENGALURU: 22 SEP**

**BHOPAL: 22 SEP**

**LUCKNOW: 22 SEP**



Scan QR code for  
instant personalized  
mentoring

\*: Pre-foundation classes are designed to provide a strong foundation in core UPSC CSE subjects, utilizing NCERTs and basic textbooks. They serve as the initial step in the comprehensive preparation journey for the UPSC Civil Services Examination by providing conceptual clarity in core GS subjects such as History, Polity, Geography, Economy, and Environment. Further, Pre-Foundation Classes act as a transition platform toward the VisionIAS Regular Foundation Course Program, 2027.



## 3.29. TEST YOUR LEARNING

### 1. Consider the following statements regarding Quick Commerce in India:

- Quick commerce typically guarantees delivery within 3-4 days.
- "Dark Stores" are retail outlets accessible to the public for quick pickups.
- The COVID-19 pandemic accelerated the adoption of quick commerce.

Which of the statements given above is/are correct?

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

### 2. With reference to Foreign Direct Investment (FDI) in India, consider the following statements:

- Net FDI inflows in India have consistently increased over the past two financial years.
- The automatic route for FDI in India does not require prior approval from the RBI or the Central Government.
- Lottery business is one of the sectors where 100% FDI is allowed through the automatic route.

Which of the statements given above is/are correct?

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

### 3. With reference to the Employment Linked Incentive (ELI) Scheme, consider the following statements:

- The scheme is implemented by the Ministry of Skill Development and Entrepreneurship.
- First-time employees earning up to ₹1,00,000 per month and registered with EPFO are eligible for benefits.
- Employers in the manufacturing sector are eligible for incentives for an extended period compared to other sectors.

- The incentive to employers is given only in the form of a one-time grant.

Which of the statements given above are correct?

- Only One
- Only two
- Only Three
- All four

### 4. Consider the following statements regarding Gig Workers in India.

- The Code on Social Security, 2020 defines a gig worker as someone engaged outside the traditional employer-employee relationship.
- The Karnataka Platform-Based Gig Workers (Social Security and Welfare) Bill, 2025 provides for the establishment of a welfare board and fund for gig workers.
- Over 80% of gig workers in India are informal employees.

How many of the statements given above are correct?

- All three
- Only two
- Only one
- None

### 5. Consider the following statements regarding Sovereign Credit Ratings (SCR).

- Higher sovereign ratings reduce borrowing costs and facilitate foreign investment.
- Sovereign ratings are legally binding for a country's borrowing.

Which of the statements given above is/are correct?

- 1 only
- Only
- Both 1 and 2
- Neither 1 nor 2

### Mains Question

#### Q1. (150 words)

India has emerged as the third-largest aviation market globally, yet several institutional, infrastructural and regulatory challenges persist in ensuring aviation safety. Discuss.

#### Q2. (250 words)

Blue Economy is a critical pillar for India's sustainable growth and maritime security. Discuss its potential and associated challenges. What initiatives have been taken by the government to harness it?

# SECURITY



## Table of Content

4.1. SUDARSHAN CHAKRA MISSION . . . . .	80	4.5. HIGH-POWERED DEMOGRAPHY MISSION . . . . .	83
4.2. FIFTH-GENERATION FIGHTER JET AMCA . . . . .	80	4.6. NEWS IN SHORTS . . . . .	84
4.3. QUANTUM CYBER READINESS . . . . .	81	4.7. TEST YOUR LEARNING . . . . .	86
4.4. INCREASED PRIVATE SECTOR SHARE IN DEFENCE PRODUCTION . . . . .	82		

## 4.1. SUDARSHAN CHAKRA MISSION

### Why in the News?

Prime Minister launched Mission **Sudarshan Chakra** on **79th Independence Day**.

### More on the news

- The mission aims to develop an **Air Defence system to neutralize enemy infiltrations** and boost India's offensive capabilities.
- The Indian Air Force is pressing for rapid progress on **Project Kusha**, an indigenous initiative led by **DRDO and Bharat Electronics Limited**.
  - ➔ It is an **Indigenous long-range surface-to-air missile (LR-SAM) system**.

### About Sudarshan Chakra Mission

- **Objectives:** Strengthen India's **deterrence and offensive capabilities by expanding and modernizing** the national security shield.
  - ➔ Part of India's **Multi-Layered Missile Defence System**.
- **Features:**
  - ➔ **Completion timeline:** 2035.
  - ➔ Provides comprehensive protection for **strategic, civilian, and religious sites**.
  - ➔ **Covers all public places** with a nationwide shield across air, land, and sea.
  - ➔ **Integrates advanced surveillance, cyber protection**, and physical safeguards for precise targeted action.
  - ➔ **Fully indigenous technology**, developed and manufactured in India.
  - ➔ **Ensures air superiority** and ground troop protection.
  - ➔ **Creates strong deterrence** against enemy aggression.
  - ➔ **Promotes self-reliance** in defence modernization.

### Conclusion

Sudarshan Chakra Mission reflects **India's cultural heritage and technological strength, ensuring sovereignty protection**.

### Related News:

- DRDO conducts maiden tests of **Integrated Air Defence Weapon System (IADWS)**, offering layered protection via **surveillance, threat ID, and air defence**.

### About IADWS

- **Key Components:**
  - ➔ **Indigenous Quick Reaction Surface to Air Missiles (QRSAM):** DRDO-made, 5–30 km range, mobile, protects armoured columns in motion.
  - ➔ **Advanced Very Short-Range Air Defence System (VSHORADS) missiles:** RCI-made MANPADS, counters low-altitude aerial threats.
  - ➔ **Laser-DEW:** CHESSE-made, **engages targets** at light speed **with laser beams**.
- **Command Centre:** Integrated control via **Centralised Command Centre by DRDL**.

## 4.2. FIFTH-GENERATION FIGHTER JET AMCA

### Why in the News?

Defence Minister has approved an **execution model** for indigenous **5th-generation fighter jet** named **Advanced Medium Combat Aircraft (AMCA)**.

### AMCA Programme Overview

- **Background:** Approved by Cabinet Committee on Security (CCS) in 2024.
- **Purpose:** Indigenous development of 5th generation fighter jet AMCA.



- **Timeline:** Prototype by 2028–29; induction by 2034–35.
- **Variants:** Mk1 with GE–F414 engines; Mk2 with indigenous engines.
- **Lead Agency:** ADA under DRDO.
- **Industry Tie-up:**
  - ➔ Implemented through industry collaboration.
  - ➔ HAL has been key producer of combat aircraft.
  - ➔ Public and private firms can bid independently or as consortia.
  - ➔ Only Indian-compliant companies are eligible.

### About the 5<sup>th</sup> Generation Fighter Jet

- **Fighter jet generations emerged in the 1990s** to classify major technological advancements.
- The 5th Generation jets are the most advanced, featuring **twin engines, stealth capabilities, supercruise, advanced avionics, and integrated computer systems for 360° battlefield awareness.**
- They are costly to develop and maintain.
  - ➔ **Examples:** F-22, F-35 (US); Su-57 (Russia); J-20 (China).
- Several nations such as **US, China, Russia, the UK, Japan, Italy, France, Germany, and Spain** are developing **6th Generation fighters with AI, hypersonic, and unmanned features.**

### Strategic Importance of 5<sup>th</sup> Generation Fighter Jet AMCA

- **Supports IAF modernisation** by replacing aging jets and boosting squadron strength.
- **Counters regional threats** like China's J-20 and Pakistan's J-10C.
- **Promotes defence self-reliance** under Atmanirbhar Bharat and enhances technological sovereignty.

### Conclusion

A **multi-pronged strategy** is essential including **land acquisition norms**, investing in **defence-specific industrial infrastructure**, supporting private sector capability by **leveraging HAL's experience**, framework of investment and IPR laws to facilitate technology transfers.

## 4.3. QUANTUM CYBER READINESS

### Why in the News?

MeitY, CERT-In and SISA released a whitepaper **"Transitioning to Quantum Cyber Readiness"**.

### Quantum Cyber Threats

- **Harvest Now, Decrypt Later (HNDL) Attacks:** Encrypted data harvested now, decrypted later using quantum power.
- **Secure Channel Decryption:** Quantum computers may break defence or sensitive communications.
- **Signature Impersonation:** Forged certificates enabling malware, phishing.
- **Zero-Day Risks:** Unknown algorithms breaking current cryptography, delaying quantum-safe transition.

### India's Quantum Cybersecurity Initiatives

- **National Quantum Mission (2023):** Aims for 2000 km quantum-secured communication.
- **DRDO:** Set up QTRC; achieved 1 km entanglement-based secure link.
- **C-DOT:** Developing Quantum Key Distribution (QKD), Post-Quantum Cryptography (PQC).
- **ISRO:** Demonstrated free-space QKD over 300 m.

### Way Forward: Recommended by whitepaper

Area	Recommendations
Assessment & Strategic Planning	<ul style="list-style-type: none"> <li>➤ <b>Quantum Bill of Materials (QBOM):</b> Supports risk prioritization, procurement, upgrades, and compliance for post-quantum readiness.</li> <li>➤ <b>AI Risk Assessment:</b> Uses machine learning for cryptographic pattern detection.</li> </ul>

<b>Technology Readiness</b>	<ul style="list-style-type: none"> <li>➤ <b>PQC Testing:</b> Validate implementations before deployment.</li> <li>➤ <b>Hybrid Cryptography:</b> Combine classical and quantum-resistant algorithms.</li> </ul>
<b>Phased Organizational Rollout</b>	<ul style="list-style-type: none"> <li>➤ Embed PQC in workflows for secure development, key management, and signing.</li> <li>➤ Update ICT policies to mandate approved algorithms, toolsets, and enforce standards</li> </ul>
<b>Resilience, Monitoring &amp; Futureproofing</b>	<ul style="list-style-type: none"> <li>➤ QKD: Physics-based security using quantum mechanics.</li> <li>➤ ML-DSA and SLH-DSA: Stronger signatures for government, finance, legal documents despite higher computational demands.</li> </ul>

## 4.4. INCREASED PRIVATE SECTOR SHARE IN DEFENCE PRODUCTION

### Why in the News?

According to the data **Private sector share in defence production hit a record 23% in FY 2024-25, marking the third consecutive year of growth.**

### Reasons behind increased share of Private sector in Defence Production

- **Institutional Reforms:** Creation of **CDS and Department of Military Affairs** to enhance armed forces synergy and promote indigenous equipment.
- **Policy & Regulatory Reforms:** DAP-2020 prioritizes domestic procurement; **liberalized FDI policy allows up to 74% FDI automatically**; Positive Indigenization Lists restrict imports; Make in India campaign encourages private sector.
- **Industrial Infrastructure & Budget Support:** Defence Industrial **Corridors in UP and Tamil Nadu**; 75% of FY 2025-26 defence modernization **budget earmarked for Indian firms.**
- **Innovation & Ease of Doing Business:** **IDEX & ADITI provide grants** to startups/MSMEs for advanced tech; license validity extended, **defense items de-licensed**, and **digital export approvals simplify processes.**

### Significance of Indigenous Defence Production

- **Strategic security:** Less supply-chain risk in conflict.
- **Operational readiness:** Faster modernization.
- **Technological:** Fewer hidden risks, civilian spillovers.
- **Diplomacy:** Soft power via arms exports.
- **Economic:** Lower imports, more jobs.

### Challenges in India's Defence Production

- **Production lags:** Missed export targets; lost contracts like HAL's **Malaysian LCA and Garden Reach Shipbuilders in the Philippines.**
- **Industrial issues:** **Heavy import reliance on raw materials**, electronics; limited production capacity.
- **Import dependence:** **Delays in deliveries** like S-400 due to global conflicts.
- **Technological gaps:** OEMs restrict technology transfer; **limited depth in AI, cyber, hypersonics**, stealth tech.
- **Funding shortfalls:** Defence budget **below 3%**, over half spent on personnel, leaving less for modernization and R&D.
- **Continued foreign tech reliance:** Despite "Make in India."

### Way Forward

- Increase defence R&D investment to at least **2% of GDP, matching global standards.**
- Encourage **joint ventures with foreign OEMs** for tech sharing, co-development, and manufacturing.
- Specialized **defence education, vocational, and technical training** aligned with industry and R&D needs.
- Encourage DPSUs and private firms to bid **jointly for foreign contracts.**
- **Provide ongoing support** to small enterprises to integrate into **defence supply chains.**
- Empower PMO-led **Defence Technology Council**, **reorient DRDO to focus on R&D**, and increase private sector and academia involvement.

## Conclusion

India aims to **become a leader in defence innovation by leveraging its demographic dividend, global partnerships, and a vibrant startup ecosystem to advance AI, space, and cyber warfare technologies.**

# 4.5. HIGH-POWERED DEMOGRAPHY MISSION

## Why in the News?

PM announced a **High-Powered Demography Mission** on Independence Day **to tackle illegal immigration.**

## More on the News

- **Illegal immigrants enter** without valid travel documents secretly.
- **No official count** exists for illegal immigrants in India.
  - ➔ In 2016, government estimated around **20 million illegal Bangladeshi migrants in India.**

## Factors Facilitating Illegal Immigration/Infiltration into India

- **Geographical:** Porous and riverine borders (Bangladesh, Nepal, Myanmar); dense forests and hills, etc.
- **Socio-Economic:** Poverty, unemployment, religious persecution, etc. in neighbouring countries.
- **Political/Administrative:** Corruption (Easy access to forged IDs), political patronage (vote-bank politics), etc.
- **Historical/Cultural:** Partition (1947) & 1971 war migrations; shared culture make detection difficult.
- **Security/Strategic:** Infiltration by militants (Pakistan-backed), smuggling networks, poor surveillance infrastructure.

## Key concerns associated with Illegal Immigration and Infiltration

- **National Security:** Extremist groups **may recruit vulnerable illegal immigrants** like Rohingyas. Borders face smuggling and trafficking threats.
- **Demographic Impact:** Illegal immigration **causes ethnic and religious tensions**, especially in states like Assam.
- **Socio-Economic Strain:** Overloads public services, **displaces local workers with cheaper labor, and leads to land encroachment.**

## Initiatives taken to Curb Illegal Immigration/ Infiltration in India

- **Legislative and Policy Measures:** **Immigration and Foreigners Act, 2025** empowers detection, detention, deportation; **NRC updated in Assam; CAA, 2019** also relevant.
- **Border Management Initiatives:** Fencing, floodlights on **India-Bangladesh and India-Pakistan borders**; smart tech like drones, sensors under CIBMS.
- **Institutional Measures:** Foreigners Tribunals decide illegal immigration cases under **Foreigners Act, 1946**

## Way Forward: Measures to curb Illegal Infiltration/Immigration

- **Security & Intelligence:** **Strengthen Integrated Intelligence** Grid with IB, BSF, police coordination.
- **Border Management:** **Specialized floating outposts** and UAV monitoring in river areas.
- **National Refugee Law:** **Needed to separate refugees from illegal economic migrants**; India not party to 1951 UN Refugee Convention.
- **Bilateral Repatriation:** Agreements **to return illegal nationals.**
- **Other Measures:** Involve UNHCR support, fast-track National ID cards, and **maintain biometric records of illegal immigrants/refugees.**

## Conclusion

The High-Powered Demography Mission **aims to counter illegal infiltration through stronger border fencing, faster tribunal decisions, bilateral repatriation agreements, and robust national ID systems.**

## 4.6. NEWS IN SHORTS

### 4.6.1. Silver Notice

The **INTERPOL** has issued the **first silver notice** on **India's request**. It was issued to track assets of former **French Embassy officer** Shubham Shokeen wanted in connection with a visa fraud.

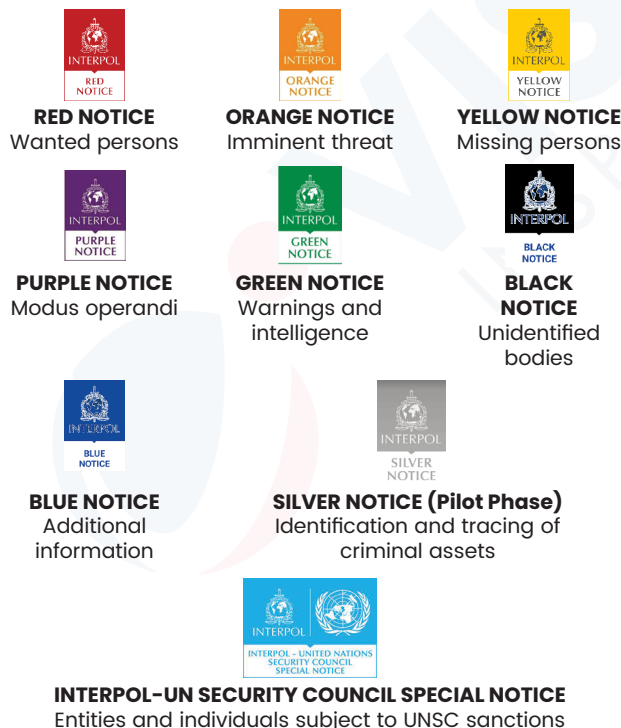
#### About Silver notice

- Newest addition to INTERPOL's colour-coded Notices for international police cooperation.
- **Purpose:** Helps trace and gather information on fugitives' assets, including those abroad.
- **Global Collaboration:** India among 51 nations in pilot phase (till Nov 2025).
- **First Use:** Issued by Italy in January.
- **Limit:** Each country can request up to 9 notices during pilot.

#### About INTERPOL

- **Headquarters:** Lyon, France.
- **Genesis:** Established as **International Criminal Police Commission (ICPC)** during 2<sup>nd</sup> International Police Congress in Vienna in **1923** and established as **INTERPOL** in **1956**.

#### Interpol Notices



- **Members:** 196 countries (India a founding members).
- **National Central Bureau (NCBs):** Established by member countries as a **point of access for INTERPOL affairs**.

- **CBI is India's NCB** to the INTERPOL, and it has also developed **Bharatpol portal for better coordination**.
- **Governing Bodies:** The General Assembly and Executive Committee.

### 4.6.2. Successful Trial Rudrastra Conducted At Pokhran, Rajasthan

Hybrid Unmanned Aerial Vehicle (UAV) **Rudrastra** demonstrated **vertical takeoff and landing (VTOL) capabilities, extended flight range, real-time surveillance, and accurate target engagement over a range of 50 kilometres**.

#### About Rudrastra

- It is a **Hybrid Vertical Take-Off and Landing (VTOL) UAV** manufactured by **Solar Defence and Aerospace Limited**.
- **Features:**
  - ➔ **Total range** (including loitering over the target) is **170 km**, with an estimated **endurance of 1.5 hours**.
  - ➔ Equipped with **precision-guided anti-personnel warheads** with mid-altitude release capability.
  - ➔ Can relay back **live video** and **return** to the launch position in **automated mode**.

### 4.6.3. Operation Mahadev

#### About Operation Mahadev

- A **joint counter terror mission** of Indian Army, CRPF & J&K Police to eliminate foreign terrorist's infiltration.

### 4.6.4. Astra Missile

DRDO & Indian Air Force (IAF) successfully conducted the flight test of '**Astra**'.

#### About Astra Missile

- It is Indigenous **Beyond Visual Range Air-to-Air missile (BVRAAM)** with range exceeding **100 kms**.
- The missile is designed to **engage and destroy highly manoeuvring supersonic aircraft**.
- The missile has **all weather day and night capability**.

### 4.6.5. Project 17A

INS Udaygiri, second ship of Project 17A's delivered to Indian Navy.

#### Project 17A

- The Project is follow-on of the Shivalik class (Project 17) frigates active in service.



→ **Frigate is a multi-role vessel** for ship protection against surface combatants or incoming aerial threats.

- **P-17A ships** have enhanced **stealth features** and fitted with '**State of the Art**' weapons and sensors.

#### 4.6.6. Agni-5

India successfully test-fired **Agni-5 IRBM under the Strategic Forces Command (SFC)**, which manages the nation's nuclear arsenal.

##### About Agni-5

- **Nuclear-capable Surface-to-Surface** Ballistic Missile with three-stage solid fuel engine.
- **Range:** 5,000+ km.
- **Developer:** DRDO under IGMDP (**Agni, Prithvi, Trishul, Nag, Akash**).
- **Significance:** Gives India MIRV-capable IRBM status like **US, Russia, China, France**.

#### Surface-to-Surface Ballistic Missile (SSBM)



Rocket-powered initially, then follows an unpowered ballistic trajectory.



Can carry nuclear or conventional warheads.



**Range types:** Short (<1,000 km), Medium (1,000–3,000 km), Intermediate (3,000–5,500 km), Long/Intercontinental (>5,500 km)

#### 4.6.7. Extended Range Anti-Submarine Rocket

India has tested the indigenous anti-submarine rocket systems.

##### About ERASR

- ERASR is a totally **indigenous anti-submarine rocket** used to **combat submarines** and fired from onboard of Indian Naval Ships.
- It has **twin-rocket motor configuration** and uses an indigenously developed **Electronic Time Fuze**.

#### 4.6.8. Pralay missile

DRDO conducted flight tests of the Pralay missile.

##### About Pralay missile:

- A **surface-to-surface short range solid propellant quasi-ballistic missile** which can fly at **hypersonic speed (Above Mach 5)** with range from 150 to 500 km.
- Quasi ballistic missiles are a class of missiles that have low trajectory and take ballistic trajectory but **can change course and make maneuvers during the flight if required**.

#### 4.6.9. Operation- MED MAX

##### About Operation-Med Max

- Narcotics Control Bureau (NCB) operation to crack down on illegal pharma trade.
- Dismantled syndicate spanning four continents which used encrypted platforms, drop shipping, cryptocurrency. It highlights nexus of tech and illicit trade.

#### 4.6.10. Exercises in News

<b>Exercise Khaan Quest</b>	<ul style="list-style-type: none"> <li>➤ Indian Army contingent reached Ulaanbaatar, Mongolia for the <b>22nd Multinational Military Exercise</b>.</li> <li>➤ <b>Genesis:</b> Bilateral initiative between the United States and Mongolia in 2003.</li> <li>➤ First multilateral exercise KHAAN QUEST: 2006.</li> </ul>
<b>PASSEX</b>	<ul style="list-style-type: none"> <li>➤ PASSEX, <b>joint naval exercise</b> between Navies of <b>India</b> and <b>UK</b>, is being held in northern Arabian Sea.</li> </ul>
<b>Exercise Bold Kurukshetra</b>	<ul style="list-style-type: none"> <li>➤ 14th Edition of India-Singapore Joint Military Exercise.</li> </ul>
<b>Bharat NCX</b>	<ul style="list-style-type: none"> <li>➤ National Cybersecurity Exercise.</li> <li>➤ Conducted by National Security Council Secretariat (NSCS) in collaboration with Rashtriya Raksha University (RRU), Gandhinagar, Gujarat.</li> </ul>
<b>SIMBEX Exercise</b>	<ul style="list-style-type: none"> <li>➤ Genesis: It began as Exercise Lion King in 1994.</li> <li>➤ It is an annual exercise held between the Indian Navy and the Republic of Singapore Navy.</li> </ul>
<b>Talisman Sabre Exercise</b>	<ul style="list-style-type: none"> <li>➤ 2025 exercise commences in Sydney involving 19 nations across land, sea, air, space, and cyberspace.</li> <li>➤ Major Participants: France, Germany, India, etc.</li> </ul>
<b>Jaa Mata</b>	<ul style="list-style-type: none"> <li>➤ It is a joint sea exercise between Japan and India Coast Guard.</li> </ul>
<b>SLINEX-25</b>	<ul style="list-style-type: none"> <li>➤ <b>INS Rana</b> and <b>INS Jyoti</b> reached Colombo for the <b>12th India-Sri Lanka naval exercise, begun in 2005</b>.</li> </ul>

## 4.7. TEST YOUR LEARNING

### 1. Which of the following statements is/are correct?

- The Silver Notice is used to trace and gather information on fugitives' assets.
- The Red Notice is a request to locate and provisionally arrest an individual pending extradition.
- INTERPOL notices are binding international warrants enforceable by member countries.

Select the correct answer using the code below:

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

### 2. Consider the following sentences,

- The Immigration and Foreigners Act, 2025 provides for deportation of illegal immigrants in India.
- India is a signatory to the 1951 UN Refugee Convention, which governs treatment of refugees.

Which of the above statements is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

### 3. Consider the following statements regarding Project 17A Frigates:

- Project 17A is the follow-on of Project 17 (Shivalik class) frigates currently in service.
- Project 17A frigates are designed primarily for anti-submarine warfare only.
- These frigates are equipped with advanced stealth features and state-of-the-art weapons and sensors.

Which of the above statements is/are correct?

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

### 4. With reference to the Extended Range Anti-Submarine Rocket (ERASR), consider the following statements:

- It is an indigenous anti-submarine rocket developed to be launched from Indian Naval Ships.
- ERASR uses a twin-rocket motor configuration and an indigenously developed Electronic Time Fuze.
- It is primarily designed to target supersonic aircraft.

Which of the above statements is/are correct?

- Only One
- Only two
- All three
- None

### 5. The Astra Missile recently tested by DRDO and IAF is significant because:

- It is India's first indigenous Beyond Visual Range Air-to-Air Missile (BVRAAM).
- It has an operational range exceeding 100 km.
- It is capable of engaging highly manoeuvring supersonic aircraft in all weather, day and night conditions.

Which of the above statements are correct?

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

### Mains Question

#### Q1. (150 words)

Discuss India's nuclear deterrence capability in light of the successful test of Agni-5.

#### Q2. (250 words)

"The development of fifth-generation fighter aircraft like AMCA reflects India's pursuit of technological sovereignty and strategic autonomy." In this context, discuss the features and significance of AMCA and highlight the challenges in its implementation.

# ENVIRONMENT



## Table of Content

5.1. BHARAT FORECAST SYSTEM . . . . .	88	5.8. CROWD DISASTER MANAGEMENT . . . . .	95
5.2. E-MOBILITY . . . . .	88	5.9. URBAN RESILIENCE . . . . .	96
5.3. ETHANOL BLENDING . . . . .	89	5.10. MARITIME DISASTERS . . . . .	97
5.4. AGROFORESTRY . . . . .	90	5.11. CLOUDBURSTS IN HIMALAYAN REGIONS . . . . .	98
5.5. CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES) . . . . .	91	5.12. CSS-INTEGRATED DEVELOPMENT OF WILDLIFE HABITATS SCHEME (CSS-IDWH) . . . . .	98
5.6. INDIA'S RESOLUTION ON WISE-USE OF WETLANDS . . . . .	92	5.13. PACIFIC RING OF FIRE . . . . .	99
5.7. INTERNATIONAL CONFERENCE ON DISASTER RESILIENT INFRASTRUCTURE 2025 . . . . .	92	5.14. NEWS IN SHORTS . . . . .	100
		5.15. TEST YOUR LEARNING . . . . .	110

## 5.1. BHARAT FORECAST SYSTEM

### Why in the News?

Ministry of Earth Sciences unveils **Bharat Forecast System (BFS)**, one of the world's first **indigenously developed high-resolution weather forecast systems**.

### About Bharat Forecast System

- **Developed by:** Indian Institute of Tropical Meteorology (IITM), Pune, an autonomous institute of the Ministry of Earth Sciences.
- **Role:** It **enhances India's weather prediction resolution from 12 km to 6 km**, enabling every village in India to access more **precise and location-specific forecasts**.
- **Data Sources:** Integrates real-time inputs from **40 Doppler Weather Radars**, improving accuracy of **localised forecasts and nowcasts**.
  - ➔ **Doppler Radar** uses the **doppler effect** (Change in frequency of wave emitted by a source moving relative to the observer) to gather **velocity data** from particles being measured.

### Significance of BFS

- **Improved accuracy and speed:** Deliver **64% better accuracy** in **high-risk zones** and produces forecasts within **4–6 hours**, especially for extreme events like **heavy rainfall** and **cyclones**.
  - ➔ Earlier models took **12 to 14 hours**.
- **Global Leadership:** Positions India ahead of the **US, UK, and EU** by achieving **6 km resolution** compared to **9–14 km** in global models.
- **Support for Disaster Management & Agriculture:** Enables **short-range** and **nowcasts** at **village** and **block level**. Assists **farmers, coastal communities, and disaster management agencies** in **crop planning** and **early warning**.
- **Economic Benefits:** Reduces **climate-related losses** in sectors like **agriculture, infrastructure, and water management**.
  - ➔ Powered by **High-Performance Computing (HPC)** systems – **Arka** (IITM Pune) and **Arunika** (NCMRWF Delhi).
- **Regional Forecast:** Improves forecasting of **tropical disturbances**, including **monsoons, cyclones, and extreme rainfall events**.

### Conclusion

The **Bharat Forecast System (BFS)** reflects India's growing **self-reliance** in **scientific infrastructure**. As **climate risks** intensify, such advancements highlight the role of **science** in ensuring **resilience** and **inclusive development**.

## 5.2. E-MOBILITY

### Why in the news?

NITI Aayog released "**Unlocking a 200 Billion Dollar Opportunity: Electric Vehicles (EVs) in India**" with first **India Electric Mobility Index (IEMI)**.

### About IEMI

- **Launch:** NITI Aayog with World Resources Institute India to benchmark state e-mobility progress.
- **Indicators:** 16 metrics under Transport Electrification, Charging Infrastructure, EV R&D.
- **Categories:** Achievers (100), Front Runners (65–99), Performers (50–64), Aspirants (0–49); Delhi tops (77), followed by Maharashtra (68).

### About Electric Vehicles (EVs)

- **Types:** Battery EVs, Hybrid EVs, Fuel Cell EVs, Plug-in Hybrid EV, etc.
- **Status:** **2.08 million** EV sales in 2024, **7.6%** EV penetration in 2024.

### Benefits of EVs over Internal Combustion Engine (ICE) Vehicles

- **Zero Tailpipe Emissions:** ~3x less CO<sub>2</sub> emissions.
- **Energy Efficiency:** ~60% conversion of electricity into wheel power vs ~20% in petrol vehicles.



- **Reduced Oil Imports:** 2030 target can save ~1.1 lakh crore annually.
- **User Convenience:** Charging at home, battery swapping, Noise reduction, lower running & maintenance costs.

### Challenges

- **Financing:** High capital cost, High EMI burden.
- **Vehicle-Centric:** Heavy & costly batteries, low resale value.
- **Charging Infrastructure:** High public charging costs, land issues, lack of collaboration, no integrated app.
- **Awareness:** Confusion incentives, Misconceptions
- **Data/ Regulation:** Inaccurate EV data, no battery IDs, inverted GST.

### Steps taken by India to boost EV adoption

- **PM E-DRIVE Scheme:** Supports e-vehicles, charging infrastructure.
- **EV Manufacturing Scheme:** Attracts global manufacturers.
- **PM e-Bus Sewa:** 38,000+ e-buses with payment security.
- **PLI Scheme:** Auto components, 50 GWh battery production.
- **GST on EVs:** Reduced from 12% to 5%.
- **EVolutionS program:** DST program for startups.

### Way Forward

- **Mandates:** ZEV targets, higher ICE taxes, 100% EV adoption in 5 cities in 5 years, etc.
- **Financing:** Pooled low-interest loans.
- **Charging:** 20 key corridors, nodal agencies, map hub locations, battery research, etc.
- **Costs:** Leasing, battery passports; etc.
- **Awareness:** National EV awareness program, Unified National EV App, etc.

### Best Practices

- **China:** "10 Cities, 1000 Vehicles" program.
- **Singapore:** EVElectric Charging Pte Ltd (EVe), for charging stations.
- **Europe:** ChargeMap app provides real-time charging station data.
- **UK:** APC, Faraday Battery Challenge for commercialization.

## 5.3. ETHANOL BLENDING

### Why in the News?

India has **achieved 20% Ethanol blending target** in petrol.

### More on the News

- Target envisaged in **Ethanol Blended Petrol (EBP) Programme**.
- It **increased from 1.5% (2014) to 20% (2025)**.

### About Ethanol

**Ethanol (C<sub>2</sub>H<sub>5</sub>OH), renewable fuel**, is produced from crops via **fermentation** or **petrochemical processes**.

- **Types:**
  - ➔ **1<sup>st</sup> Generation:** From food crops (cereals, sugarcane, beet etc).
  - ➔ **2<sup>nd</sup> Generation:** From residues/woody biomass.
  - ➔ **3<sup>rd</sup> Generation:** From algae.
  - ➔ **4<sup>th</sup> Generation:** From engineered plants and microorganisms.

### About Ethanol Blended Petrol (EBP) Programme

- **Genesis:** Launched in 2003 to promote blending of ethanol in petrol.
- **About Ethanol Blending**

- ➔ Ethanol blending **mixes ethanol with petrol** for cleaner fuel.
- ➔ **Types:** E10 (10% Ethanol by Volume), E20, E85 fuel.
  - ◊ E-20 improves ride quality, lowered carbon emissions by 30% as compared to E10 fuel.
- **Target: National Policy on Biofuels** (2018, amended 2022), advanced the target of 20% blending target to 2025-26.
- ➔ **Sources: Sugarcane Juice, Sugar Beet, Cassava**, damaged/ rotten grains, **surplus food grains**.
  - ◊ **Achievement:** Ethanol production increased from 38 crore liters (2014) to 660 crore liters (2025).

### Significance of Ethanol Blending:

- **Energy Security** – Secure energy & growth
- **Environmental Sustainability** – 698 Lakh tonnes CO<sub>2</sub> reduced
- **Economic Growth** – Boosts biofuel industry
- **Crop Diversification** – Maize & alternatives
- **Import Savings** – ₹21.36 Lakh Cr. saved
- **Rural Development** – ₹1.18 Lakh Cr. to farmers

### Challenges of Ethanol Blending in India

- **Food Security and Inflation: FAO (2023)** warns biofuel expansion may worsen food insecurity; crop diversion for ethanol raises risks.
- **Environment:** Heavy reliance on water-intensive sugarcane stresses aquifers.
- **Technology & Cost:** Transition to E20 needs costly engine/fuel system changes; **older vehicles lack ethanol-compatible parts**.
- **Fuel Efficiency: Ethanol's lower energy density reduces mileage**; older engines face drivability/emission issues; risk of clogging due to water absorption.
- **Supply:** Challenges include **poor availability in NE states**, inter-state restrictions, high logistics cost/emissions, and inadequate storage infrastructure.

### Initiatives facilitating Ethanol Blending

- **PM JIVAN:** Supports 2G ethanol projects.
- **EISS:** Promotes dedicated ethanol plants.
- **GST cut:** Ethanol for EBP at 5%, crude at 18%.
- **Amendment to Industries (Development & Regulation) Act, 1951** for smooth ethanol movement.

### Conclusion

India's ethanol blending ensures energy security, sustainability, and growth; phased biodiesel rollout needed to address emerging challenges.

## 5.4. AGROFORESTRY

### Why in the News?

The Government has issued **Model Rules 2025 for the felling of trees on agricultural land** in a bid to promote **agroforestry**.

### More about the News

- The **Model Rules include:**
  - ➔ The procedures for the **registration of land** for agroforestry.
  - ➔ The **felling of trees** under agroforestry.
  - ➔ The **certification/transit of timber** produced from agroforestry.

### About Agroforestry in India

- According to National Agroforestry Policy 2014, "Agroforestry is defined as a **land use system which integrates trees and shrubs** on farmlands and rural landscapes to enhance productivity, profitability, diversity and ecosystem sustainability."
- It **aims to encourage tree planting on farmland** in a way that **complements crops and livestock**.
- India's agroforestry plantations occupy **approximately 8% of India's geographical land area**.

## Significance of Agroforestry (EAC-PM Working Paper on AGROFORESTRY)

- **Agricultural Growth:** It can help achieve the **4% sustained growth in agriculture**.
- **Diverse Impact:** Meets 50% fuelwood, 60% paper pulp, and 9–11% fodder needs.
- **Food Security:** It **increases agricultural yield** (by an **average of 51 percent**) and checks **crop failure**.
- **Sustainable Development:**
  - ➔ **Carbon sequestration:** 13.7–27.2 tonnes CO<sub>2</sub>/ha/year.
  - ➔ **Soil Health:** It improves **soil's organic carbon content (SOC) concentration** and reduces **soil salinity**.
  - ➔ **Climate Smart Agriculture:** It can withstand **extreme weather events**.
  - ➔ **Environmental:** It reduces **pressure on natural forests** and provides better **protection of ecological systems**.
  - ➔ **Trees Outside Forest:** Agroforestry can significantly contribute to increase in Trees Outside Forest.

## Challenges to develop Agroforestry

- **Gaps in the policy:** **Lack of information** on selected trees due to absence of **Agroforestry tree manual** for farmers.
- **Restrictive Regulations:** **Cumbersome process** in obtaining permits.
- **Underutilization of India's National Transit Pass System (NTPS):** **82% applications** received only from **3 states/UTs**.
- **Availability of High Variety seeds:** **Shortage of superior planting material**.
- **Bottleneck in Previous Policies:** **Over emphasis on few species** like **Poplar, Eucalyptus** which were not suitable to India's climate.

## Conclusion

There is a need to **simplify laws**, better use **NTPS**, and introduce **Next Generation Systems** to balance **profit, production and environment**.

## Agroforestry Systems in India



### Agrisilviculture

Combines crops with tree crops



### Agri-horticulture

Combines fruit trees with crops



### Agri-silvi-horticulture

Combines trees, fruit trees, and crops



### Agri-silvi-pasture

Combines trees with cattle on land



### Horti-olericulture

Combines fruit trees and vegetables



### Silvi-pasture

Integrates livestock, forage, and trees



### Live fence

Shrubs and trees Forming boundaries



### Silvi or Horti-sericulture

Trees or fruit trees with sericulture



### Silvi- olericulture

Combines trees and vegetables



### Horti-pasture

Combines fruit trees with pasture or animals

# 5.5. CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)

## Why in the News?

CITES is celebrating 50th anniversary.

## About CITES

- **Genesis:** Conceived in **1963 at IUCN meeting**; **in force since 1975**
- **Aim:** Voluntary pact ensuring trade in wild species doesn't threaten survival; regulates trade via licensing.
- **Secretariat:** Administered by **UNEP at Geneva**; IUCN provides technical support.
- **Parties:** 185 parties, India ratified in 1976, implemented via national laws.
- **CoP:** Apex decision body; CoP3 held in New Delhi (1981).
- **CITES Trade Database:** Managed by **UNEP-WCMC** for trade monitoring on behalf of CITES Secretariat.

## Key Initiatives of CITES

- **Protects 40,000 + species via Appendices.**
- **MIKE Programme** monitors elephant poaching.
  - ➔ E.g. of MIKE sites- Chirang-Ripu Elephant Reserve; Dihing Patkai Elephant Reserve.

- **Strategic Vision 2021–2030:** Aligns with biodiversity, SDGs.
- **CITES Tree Species Programme (CTSP):** Promotes sustainable tree trade.
- **International Consortium on Combating Wildlife Crime (ICWC), 2010:** Combats wildlife crime globally.

### Conclusion

CITES safeguards biodiversity through evolving strategies, MIKE, ICCWC, and member-driven legal frameworks.

## 5.6. INDIA'S RESOLUTION ON WISE-USE OF WETLANDS

### Why in the News?

India's '**Promoting Sustainable Lifestyles for Wetlands**' resolution adopted at **Ramsar COP 15, Zimbabwe**.

### More on the News

- **Alignment:** Supports Mission LiFE, launched at COP26 (2021), promoting nature-friendly lifestyles.

### About Ramsar Convention



**Adopted:** 1971 in Ramsar, Iran and came into force in 1975



**About:** Intergovernmental treaty for conservation and wise use of wetlands



**Ramsar Sites:** Over 2,500 globally with designation requiring meeting at least one of nine criteria.



**India:** 91 Ramsar Sites which is the highest in Asia

### About Wise Use of Wetland

- **Principle:** Core of Ramsar Convention, **maintains ecological character** via ecosystem-based sustainable development.
- **Mandate:** Countries must promote wise use through plans, laws, actions, and education.
- **India's Approach:** NPCA, IMPs, 2024 'Wetland Wise Use' framework, 'Mission Sahbhagita' and '**Save Wetlands**' Campaign.

### Other Outcomes of COP15

Outcome/Initiative	Description
<b>Victoria Falls Declaration</b>	Recognizes wetlands' ecological, social, economic roles; links to biodiversity, climate, SDGs.
<b>IBRRI Strategic Plan 2025–2030</b>	Halts wetland loss in Indo–Burma region (Cambodia, Lao PDR, Myanmar, Thailand, Vietnam).
<b>BRIDGE Programme</b>	Grants on gender mainstreaming and women leadership
<b>Freshwater Challenge</b>	Boost convention implementation.
<b>GWEP Endorsement</b>	Enhances waterbird monitoring and wetland conservation.

## 5.7. INTERNATIONAL CONFERENCE ON DISASTER RESILIENT INFRASTRUCTURE 2025

### Why in the News?

Recently, the **African Union** joined India's **Coalition for Disaster Resilient Infrastructure** at the **7th International Conference on Disaster Resilient Infrastructure (ICDRI)** in France.



## More on News





- **ICDRI 2025** has launched a **call to action for coastal resilience** in **SIDS (Small Island Developing States)**.
- The conference is the first to be held in **Europe** and is being **co-hosted by the CDRI and the Government of France**. (Theme: **shaping a Resilient Future for Coastal Regions**)

## Vulnerability of Coastal Regions

- **Risk to Human life and Property:** Over 60% of the global population and major cities lie in coastal zones; ~250 million Indians live within 50 km of the coast.
- **Climate change:** Projected to increase **intensity and frequency of hazards** like **sea level rise, floods, and storms**.
- **Economic losses:** **Cyclone Fani** caused **~US\$1.2 billion power infrastructure damages** in Odisha (2019).
- **Social Vulnerability:** Coastal hazards are expected to **worsen existing inequities** for socially vulnerable populations
- **Threat to Ecosystems:** **Half of the world's mangroves** could face **severe risks by 2100** due to increased cyclone frequency.
- **Severe coastal hazards** include:
  - ➔ **Tsunamis:** The **2004 Indian Ocean Tsunami** claimed over **230,000 lives** across **14 countries**.
  - ➔ **Cyclones:** **Cyclone Remal** struck India and Bangladesh in 2024.
  - ➔ **Storm Surges:** **2–2.5 m storm surge** inundated **Kutch and Morbi districts** in 2023.
  - ➔ **Coastal Erosion:** **33.6% of India's coastline** is threatened by erosion.

## Indian Prime Minister outlines 5 key global priorities to strengthen

### Disaster Resilience

-  Integrating Disaster Resilience in Education
-  Formulating a Global Digital Repository
-  Promoting Innovative Financing
-  Reaffirming India's recognition of SIDS as Large Ocean Countries
-  Strengthening Early Warning Systems

## About Coalition for Disaster Resilient Infrastructure (CDRI)

- **Launched:** At **United Nations Climate Action Summit in 2019** by India.
- **About:** A **global partnership** of national governments, UN agencies, multilateral development banks and private sector.
- **Objective:** To promote **resilience of infrastructure systems** to climate and disaster risks ensuring **sustainable development**.
- **Members:** **56 members** with **secretariat at New Delhi**.
- **Initiatives:**
  - ➔ **Infrastructure for Resilient Island States (IRIS):** To promote **resilient infrastructure in SIDS**.
  - ➔ **Infrastructure Resilience Accelerator Fund:** Established with **UNDP and UNDRR** support.

## Indian Initiatives for Mitigating Coastal Vulnerabilities

- **Coastal Regulation Zone (CRZ) Notification (2019):** Aims to **conserve coastal stretches** and ensure **livelihood security** to fisher communities.
- **Integrated Coastal Zone Management Project (ICZMP):** Implemented in **Odisha and West Bengal** to protect coastal environments.
- **Coastal Vulnerability Index (CVI):** Developed by **INCOIS** to assess **vulnerability of coastal regions**.
- **Multi-Hazard Vulnerability Maps:** **INCOIS** developed maps to identify **areas vulnerable to coastal hazards**.
- **National Action Plan on Climate Change (NAPCC):** Includes **National Water Mission** supporting coastal resilience.

## Conclusion

**Coastal regions** face rising threats from **climate hazards**, and India through **CDRI** is leading **global efforts** to build **resilient infrastructure** and safeguard **coastal communities**.

### 5.7.1. Disaster Risk Reduction (DRR) Financing

#### Why in the News?

Recently, the **African Union** joined **India's Coalition for Disaster Resilient Infrastructure (CDRI)** during the **7th International Conference on Disaster Resilient Infrastructure (ICDRI)** held in **France**.






## More on the News

- Recently India showcased the **World's Largest Disaster Risk Reduction Financing System** at the **8th session of the Global Platform for Disaster Risk Reduction (GP2025)**.
- **GPDRR** was established in **2006** to assess progress on the **Sendai Framework for DRR**.

## What is Disaster Risk Reduction (DRR)?

- It refers to steps taken to **prevent new and reduce existing disaster risk** and manage **risk retention**, thereby strengthening **resilience and sustainable development**.

## Existing Financing Mechanism of DRR

 <p><b>United Nations and Multilateral Funds</b></p> <ul style="list-style-type: none"> <li>• E.g. <b>Green Climate Fund (GCF)</b> supports DRR</li> </ul>	 <p><b>Multilateral Development Banks (MDBs)</b></p> <ul style="list-style-type: none"> <li>• E.g. <b>World Bank's</b> Disaster Risk Financing and Insurance (DRFI) Program</li> </ul>	 <p><b>National-Level</b></p> <ul style="list-style-type: none"> <li>• Including DRR into national and local budgets.</li> <li>• <b>Climate Finance</b> (e.g. National Adaptation Plans (NAPs)), etc.</li> </ul>	 <p><b>Bilateral Aid and Partnerships</b></p> <ul style="list-style-type: none"> <li>• E.g., USAID supports various DRR programs</li> </ul>	 <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Private Sector and <b>Blended Finance</b> (e.g., Corporate social responsibility)</li> </ul>
---	---	---	--	---

## Why there is a need for financing Disaster Risk Reduction? (GAR 2025)

- **Limited aid:** Just **2% of development aid** goes to DRR.
- **Mounting Economic Burden:** Financial losses from disasters have **doubled in the past two decades**.
- **Higher Vulnerability of Developing Countries:** Only **49% of Least developed Countries (LDCs)** had **multi-hazard early warning systems**.
- **Breaking 3 negative spirals:**
  - ➔ **Decreasing income spiral:** By **2050**, global incomes could **decline by 19%** due to climate-related hazards.
  - ➔ **Unsustainable risk transfer spiral:** India has **very low insurance penetration below 1%**.
  - ➔ **Respond-repeat spiral:** Every **\$1 invested in DRR saves \$15** in future disaster recovery costs.

## What are the key Challenges in mobilizing adequate DRR Financing?

- **Absence of dedicated international financial mechanism** to support DRR financing systems.
- **Low integration with financial decision-making**
- **Considered as politically risky**

## India's Disaster Risk Reduction (DRR) Financing System

- **DRR Finance Mechanism:** India follows **pre-determined, rule-based allocations** from national to district levels, supported by **Disaster Management Act of 2005**.
- **Current Allocations:** Under the **15th Finance Commission**, allocation exceeds **INR 2.32 trillion (~USD 28 billion)**.
- **Four key principles:**
  - ➔ **Dedicated financial windows** for preparedness, mitigation, relief, and recovery.
  - ➔ **Prioritization of vulnerable communities.**
  - ➔ **Accessibility across all government levels.**
  - ➔ **Accountability, transparency, and measurable outcomes.**

## Way Forward

- **Overhaul regulatory environment:** Create **standards and taxonomies** for disaster resilient investments.
- **Tracking Finances:** Track **financing flows in risk prevention** and fiscal data.
- **Adopting Innovative Financial Approaches:** **Blended finance, Green bonds, Catastrophe bonds**, etc.
- **Promoting layered financing:** Different financing mechanisms for **low-cost, high frequency events** vs **severe disasters**.

## Conclusion

**DRR financing** is a **strategic investment** requiring a shift from **reactive spending** to **proactive risk management** with **resilience** at the core of policy decisions.

# 5.8. CROWD DISASTER MANAGEMENT

## Why in the News?

**Stampede outside Chinnaswamy stadium** where people gathered to celebrate Royal Challengers Bangalore's (RCB) IPL victory resulted in several **fatalities and injuries**.

## About Stampede

➤ **Stampede (a type of crowd disaster)** or crushing is **the surge of individuals in a crowd**, in response to a **perceived danger or loss of physical space**. [United Nations Office for Disaster Risk Reduction (UNDRR)]

## Crowd Management Failures and Triggers

### ➤ Crowd Control Failures:

- ➔ **Overcrowding:** E.g., Chinnaswamy stadium, 2025 - 2.5 lakh crowd gathered as against the 34,600 capacity.
- ➔ **Lack of Stakeholder Coordination:** E.g., RCB's social media announced **free entry passes** at stadium gates without proper coordination with Police.

### ➤ Crowd Behaviour Triggers:

- ➔ **Panic and structural issues:** E.g., Elphinstone Road Station, Mumbai (2017), panic triggered by rumour of **bridge collapse** on an overcrowded, slippery footbridge during heavy rain.
- ➔ **Fire/Electricity related:** E.g., Dabwali Fire Tragedy, Haryana (1995), stampede triggered due to **fire in a tented venue** and narrow exit.
- ➔ **Tussle to catch glimpse of celebrity:** E.g., stampede at the "Pushpa 2" premiere in Hyderabad (2024).

## National Disaster Management Authority (NDMA) Guidelines on Planning for Crowd management

### Preparedness

- **Risk Assessment and Planning:** Conducting **Failure Mode and Effect Analysis (FMEA)** - rating every possible hazard on dimensions of **Severity, Frequency of Occurrence, and Difficulty of detection**.
- **Crowd Density Norms:** Specify **permissible crowd per square metre** and evacuation triggers (e.g., barricade breach). **Model Example:** New York mandates **trained crowd control managers** for events with 1,000+ attendees.
- **Infrastructure Development:** Stadiums, ghats, temples must be re-engineered with **multiple wide entry/exit points; Multilingual signage** and public address systems.
- **Facilities and Emergency Medical Services:** E.g., Maha Kumbh 2025 had **articulating water towers (AWT)**, water ambulance, **multi-disaster response vehicle**.

### Response

- **Information System:** Mobile updates, loudspeakers, signage, **digital boards** for crowd guidance and informing public about delays, diversions, and hazards instantly.
- **Safety and Security measures:** **Watch towers** at vantage locations with **wireless communication network, CCTV monitoring**.

## How Technology Can Prevent Stampedes in India?

- **RFID & IoT for Crowd Tracking:** Can track visitor movements, ensuring no area exceeds **safe capacity**. E.g., **Kumbh Mela & Vaishno Devi pilgrimages** have tested RFID tagging.
- **Surveillance & Real-Time Crowd Monitoring:** **AI-driven CCTV cameras and drones** can analyze **crowd density**, detect potential bottlenecks and guide emergency responses. E.g., **Hajj pilgrimage** uses AI-based crowd monitoring, **Drones with thermal imaging** monitor large gatherings from above.
- **AI models:** Major events can be logged for identifying **crowd patterns** and **evacuation performance**. **Predictive analytics** can forecast overcrowding and alert authorities before crisis occurs.

## Conclusion

Effective crowd management requires **multidisciplinary planning, inter-agency coordination**, and **modern technology integration**, making strict adherence to **NDMA guidelines** essential for India's increasing public gatherings.

## 5.9. URBAN RESILIENCE

### Why in the News?

The World Bank report **"Towards Resilient and Prosperous Cities in India"** highlights **challenges from rapid urbanization and climate change**.

### More on the News:

- India's urban population is projected to rise from 480 million (2020) to **1.1 billion (2070)**, with cities expected to generate over **70% of new jobs by 2030**.

### What is urban resilience?

- Refers to capacity to withstand disasters, adapt to change, and transform for future sustainability.

### Key Observations of Report regarding Vulnerable Indian Cities:

- **Urban Flooding:** Storm water flooding risk may rise 3.6 to 7 times by 2070, with **losses reaching \$5 billion by 2030**.
- **Coastal Flooding:** 40% population lives near coasts; damages projected to rise **from \$2.4 billion (2010) to \$75 billion (2050)**.
- **Urban Heat Island (UHI):** Exacerbates heat stress, cities 3 – 4°C hotter; Chennai may lose 3.2% GDP by 2050.
- **UHI effect:** Altered thermodynamic, aerodynamic properties of the cities tend to trap more heat, making cities warmer than their rural and suburban counterparts.
- **Cascading Infrastructure Failure:** Floods trigger road closures, electricity outages, and economic losses, paralyzing urban areas.

### Challenges in building urban disaster resilience:

- **Fragmented Governance:** Multiple agencies split responsibilities, weakening coordination.
- **Lack of Master Plans:** 52% cities lack plans; shortage of urban planners in ULBs.
- **Limited Finance:** Municipal revenue ~1% of GDP is insufficient.
- **Poor Infrastructure:** Drainage, sewerage systems are inadequate.
- **Private Sector Role:** Contributes only 5% to urban infrastructure financing.

### Government initiatives related to urban resilience

- **Government Schemes:** Swachh Bharat Mission, Smart Cities etc.
- **Climate Smart Cities Assessment Framework:** Indicators like urban planning, green cover etc.
- **C-FLOOD:** Provides 2-day advance flood forecasts.
- **Urban Mobility:** RRTS, promotion of walkable streets in cities etc.
- **Coalition for Disaster Resilient Infrastructure (CDRI):** To promote infrastructure resilience.

### Recommendations by Report

- **Flood & Heat Resilience:** **City-level climate-action plans** for sustainable development.
- **74th Amendment:** Transfer urban planning to elected local bodies with funding strategies.
- **Municipal Finance:** **\$2.4 trillion investment needed** by 2050 to build climate-resilient infrastructure.
- **Governance Reform:** Clarify authority roles; adopt technology for efficient service delivery.
- **Global Commitments:** Align with **SDG-11, Habitat III agenda** on resilient, inclusive cities.
- **Inclusive Development:** **Strengthen Tier 2/3 cities**, satellite towns, **circular economy**, mixed-use, **Transit Oriented Development** etc.

### Conclusion

"Let's consider urbanization as an opportunity. Gone are the days when it was seen as a challenge or obstacle, Cities are not only growth centers. Our cities have strength & capacity to mitigate poverty." – PM. Modi.

## 5.10. MARITIME DISASTERS

India has urged **International Maritime Organization (IMO)** for Comprehensive Investigation and **Global review of recent Maritime Incidents**.

### More on the News

- Due to rise in **vessel sinking and fires** off the Indian coast, India has requested **IMO** to enhance **container safety and cargo disclosure regulations** at **IMO's Maritime Safety Committee (MSC)**.
- It drew attention towards improving **global standards** around **packaging, declaration, and monitoring** of **lithium-ion batteries** and other **dangerous goods** under **International Maritime Dangerous Goods (IMDG) Code**.

### Maritime Disasters

- Include **shipwrecks, collisions, fires, explosions, and oil spills**.
- **Recent Incidents:**
  - ➔ **MSC ELSA 3** sinking near **Kochi**: Release of **plastic pellets (nurdles)** contaminating coasts and food chains.
  - ➔ **MV Wan Hai 503** fire off **Kerala**: Involved **hazardous cargo** like **calcium carbide**, raising environmental concerns.
- **Consequences:**
  - ➔ **Environment**: **Marine pollution, biodiversity loss, and plastic nurdles**.
  - ➔ **Health**: **Toxic exposure** causing long-term effects.
  - ➔ **Economic loss**: **Shoreline devaluation, livelihood loss, and costly cleanups**.

### Challenges in handling Maritime Incidents/Disasters

- **Inadequate Transparency in Cargo Declaration**: Shippers **fail to properly disclose** or **misdeclare** goods nature.
- **Improper Handling of Hazardous Materials**: **Mishandling** increases **fire and environmental risks**.
- **Complex ship ownership structures**: **Dilute responsibility** and **weaken accountability**.
- **Delayed Global Response**: No **urgent global mechanism** to investigate incidents and **revise safety protocols**.
- **Maritime insurance claims**: Often involve disputes over **coverage, liability, and cost apportionment** due to the complexity of policies.

### Role of the IMO in Maritime Safety and Environment Protection

- **IMDG Convention**: Regulates **hazardous goods handling**.
- **SOLAS, 1974**: Sets **minimum ship safety standards**.
- **OPRC and OPRC-HNS**: Calls for **contingency plans** for oil spills.
- **Ballast Water Convention**: Prevents **spread of invasive species**.
- **AFS Convention**: Controls **harmful anti-fouling systems**.
- **Hong Kong Convention**: Ensures **safe ship recycling**.

### Legal Mechanism related to Maritime Disaster in India

- **Merchant Shipping Act, 1958**: For **maritime safety, ship registration, pollution prevention**.
- **Environmental (Protection) Act, 1986**: Enforce **environmental safeguards** against **marine pollution**.
- **National Oil Spill Disaster Contingency Plan (NOS-DCP)**: Administered by **Indian Coast Guard** for **oil and chemical spills response**.
- **Admiralty (Jurisdiction and Settlement of Maritime Claims) Act, 2017**: Defines **jurisdiction** and provides a framework for settling **maritime claims** from **accidents or collisions**.

### Way Forward

- **Prevention Strategies:**
  - ➔ Enforce **SOLAS** and **MARPOL** regulations.
  - ➔ **Risk Mapping** to protect **sensitive zones**.
  - ➔ Use **technology** like **real-time monitoring** and **blockchain**.
- **IMO Reforms**: Ensure **ownership disclosure** and **flag state responsibility**.
- **Early Detection**: Deploy **coastal radars, AIS, and drones**.
- **Polluter Pays Principle**: Impose **liability** on ship owners.



- Promote **arbitration** and **out-of-court settlements**.
- Conduct **training** for **port authorities** and **fishermen**.

## 5.11. CLOUDBURSTS IN HIMALAYAN REGIONS

### Why in the news?

Recent cloudbursts events affected Uttarakhand, Himachal Pradesh, and Jammu & Kashmir.

### About Cloudburst

- **Definition:** Extreme rainfall (>10 cm/hour, as per IMD), often with hail/thunder, causing floods.
- **Examples:** Kishtwar (2025), Chamoli (2025), Himachal (2020).
- **Occurrence:** Common in mountains via orographic lift; also in plains.
- **Consequences:** Flash floods, landslides, loss of life, infrastructure damage, biodiversity loss.

### Challenges

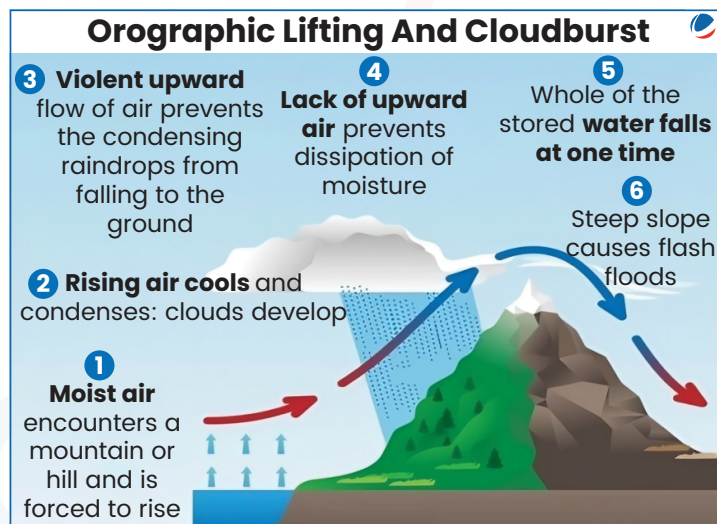
- **Climate Change:** Warmer air holds 7% more moisture per 1°C rise, increasing intensity.
- **Forecasting:** Local, short-lived; satellites imprecise, Doppler radars costly with 3-hour warning.
- **Anthropogenic:** Deforestation, wetland loss, and unplanned development worsen floods.

### Way Forward: DRR Strategy (NDMP 2019)

- **LHZ:** Map landslide-prone areas using remote sensing and local data.
- **Coordination:** Central-state collaboration for warnings, policy updates.
- **Structural:** Bioengineering, improved drainage, etc.
- **Non-Structural Measures:** Multi-hazard insurance, risk-sensitive planning, and safety by-laws.
- **Capacity:** Strengthen ULBs/PRIs, promote insurance, etc.
- **Climate Risk:** Support local adaptation.

### Conclusion:

Cloudbursts highlight the need for proactive resilience in the Himalayas, using technology, local knowledge, and governance for sustainable disaster management.



## 5.12. CSS-INTEGRATED DEVELOPMENT OF WILDLIFE HABITATS SCHEME (CSS-IDWH)

### Why in the news?

Gharial and Sloth Bear recommended for inclusion under Species Recovery Programme of CSS-IDWH.

### About CSS-IDWH Scheme

- **Nodal Ministry:** Ministry of Environment, Forest and Climate Change
- **Type:** Centrally Sponsored Scheme
- **Purpose:** Conducting wildlife protection and conservation activities.
- **Financial Assistance:** To State/UT Governments for
  - ➔ Supporting Protected Areas
  - ➔ Wildlife outside protected areas

- **Recovery programmes** for saving critically endangered species (22) and habitats like Snow Leopard, Asiatic Lion, Great Indian Bustard, Gangetic River Dolphin, etc.

## About the Animals

Gharial	Sloth Bear
<ul style="list-style-type: none"> <li>➤ <b>Habitat:</b> Prefers deep fast flowing rivers.</li> <li>➤ <b>Range:</b> <b>Nepal</b> (Rapti–Narayani) and <b>India</b> (Girwa, Son, Ramganga, Gandak, Chambal, Mahanadi).</li> <li>➤ <b>Features:</b> Fish catching teeth, elongated snout, males with GHARA, only sexually dimorphic crocodilian.</li> <li>➤ <b>Threats:</b> Habitat degradation and getting trapped and drowning in fishing nets.</li> <li>➤ <b>Status</b></li> <li>➤ <b>IUCN:</b> Critically Endangered</li> <li>➤ <b>CITES:</b> Appendix I</li> <li>➤ <b>WPA, 1972:</b> Schedule I</li> <li>➤ <b>Conservation Efforts:</b> Project Crocodile (1975), Breeding Program and National Gharial Plan</li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Habitat:</b> Forests and grasslands.</li> <li>➤ <b>Range:</b> <b>India, Nepal, and Sri Lanka.</b></li> <li>➤ <b>Features:</b> Long claws, shaggy coat, long snout, termite eater, nocturnal and aggressive.</li> <li>➤ <b>Threats:</b> <b>Habitat loss</b></li> <li>➤ <b>Status</b></li> <li>➤ <b>IUCN:</b> Vulnerable</li> <li>➤ <b>CITES:</b> Appendix I</li> <li>➤ <b>WPA, 1972:</b> Schedule I</li> <li>➤ <b>Conservation Efforts:</b> <b>Daroji Sloth Bear Sanctuary</b> (Karnataka).</li> </ul>
<p><b>Gharial</b></p> 	<p><b>Sloth Bear</b></p> 

## 5.13. PACIFIC RING OF FIRE

### Why in the News?

8.8 magnitude earthquake near Russia's Kamchatka Peninsula, seismically active Pacific Ring of Fire triggering tsunami waves.

### More on News

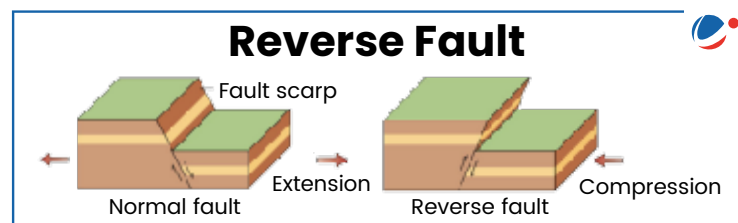
- Quake caused by **shallow reverse faulting**, occurs near the Earth's surface when Earth's crust is pushed up over another due to **compressional forces**.

### About Pacific Ring of Fire

- **Horseshoe-shaped belt** of intense seismic - volcanic belt encircling the Pacific Ocean basin.
- **Accounts:** ~75% of active volcanoes, ~90% of earthquakes.
- **Location:** Traces boundaries of Pacific, Cocos, Nazca, Philippine, etc.

### Features of Circum-Pacific Belt:

- **Geography:** Led to formation of mountains, island arcs, deep underwater trenches (Mariana Trench).
- **Source of geothermal energy:** More than 40%.
- **Rich in Minerals.**



- **Agricultural Significance:** Volcanic soils are fertile (good for crops like rice, coffee).

### Cause of Frequent Earthquakes and Volcanism

- **Subduction zones:** Plates overlap at convergent boundaries; subducted rock forms magma, driving volcanism. E.g. Taupo Arc, NZ.
- **Transform Faults:** Plates slide laterally (San Andreas), causing quakes with little volcanism.
- **Divergent Boundaries:** Plates pull apart, forming seafloor spreading/rifts. E.g. East Pacific Rise.
- **Hot Spots:** Mantle heat melts rock, creating volcanoes.

### Conclusion

- Ring of Fire drives major quakes, eruptions, shaping Pacific ecosystems.

## 5.14. NEWS IN SHORTS

### 5.14.1. Intergovernmental Science-Policy Panel On Chemicals, Waste And Pollution Established

Its creation follows a **United Nations Environment Assembly (UNEA)** resolution in 2022 for establishing an intergovernmental body.

- Convened by **UN Environment Programme (UNEP)**, which will **host the panel**.
- Provides nations with **independent, policy-relevant scientific advice** on chemicals, waste and pollution prevention.
- **Completes a global scientific trifecta** alongside **Intergovernmental Panel on Climate Change (IPCC)** and **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)**.

#### Need for the Panel

- **To reduce the triple planetary crisis:** Climate change, biodiversity loss, and pollution and waste.
  - ➔ **Chemicals used daily** have **unintended negative impacts**.
  - ➔ **Municipal solid waste** predicted to grow from **2.1 billion tonnes (2023) to 3.8 billion tonnes by 2050**.
  - ➔ **Deaths from pollution** have risen by **66% over two decades**.

### 5.14.2. ILO Convention on Biological Hazards

International Labour Organization's (ILO) member states have adopted the first ever **international convention on biological hazards at work**.

#### About the Convention (ILO Convention 192)

- Calls on Member States to **formulate national policies** including **prevention and protection against biological hazards** and **preparedness and response measures**.

- **India's Concerns:** **Blanket application across all sectors** may **burden MSMEs and informal enterprises**.
  - ➔ **Definitions are too broad**, leading to **over-regulation**.

#### About Biological Hazards (Biohazards)

- **Biohazards are of organic origin** including **pathogenic microorganisms, toxins and bioactive substances**. **Healthcare, agriculture, laboratory workers** at greatest risk.
- **Driving factors:** **atmospheric conditions, antimicrobial overuse**.
- **Measures:** ILO Conventions, India's 2020 Code.

#### Other Key Highlights of the Conference

- **First platform economy discussion** addressing **fundamental rights** and **fair remuneration digital platforms** like Uber, Amazon.
- **Resolution to reduce informality** and support **formal work transition**.
- **Maritime Convention amendments** address **violence and shore leave rights**. India ratified in 2015.

### 5.14.3. National Mission for a Green India

**Revised mission document of the National Mission for a Green India (GIM)** was unveiled.

- **Ministry of Environment, Forest and Climate Change (MoEFCC)** unveiled the document on **World Day to Combat Desertification and Drought** (June 17).

#### About Green India Mission

- **Genesis:** Launched in 2011. One of **eight missions** under **National Action Plan on Climate Change (NAPCC)**.
- **Objectives:** Increase **forest and tree cover**, improve **ecosystem services**, create **carbon sink** of **2.5-3.0 billion tonnes CO2** by 2030.
- **Three Sub-Missions:** Improve **forest quality**, increase **forest cover**, enhance **forest-dependent communities' incomes**.

- **Timeline: 10 years (2021–2030).**
- Implementation through **Joint Forest Management Committees.**

### Key Mission Strategies (linked to India's NDC Commitments)



#### Micro-Ecosystem Approach:

Focus on vulnerable zones like Aravallis, Western Ghats, NW arid regions, mangroves, and IHR.



#### Private Sector:

Leverage CSR for restoration and village support.



#### Carbon Markets:

Sell carbon credits from forestry/agroforestry via voluntary markets.



#### Green India Force:

Trained youth cadre for implementation and maintenance.

### 5.14.4. Global Drought Outlook, 2025 Released

The report has been released by the **Organisation for Economic Co-operation and Development (OECD)**.

#### Key findings

- **Increase in severity:** 40% of world's land faces increasingly **frequent and severe droughts**. Examples include **Europe (2022)**, **California (2021)**, **Horn of Africa**.
- **Economic impact:** 3%–7.5% annual increase in drought costs, **Crop yields decline by 22%**.
- **Ecological:** 37% of global land experienced **soil moisture decline** since 1980, **62% of aquifers** in decline.
- **Other:** Droughts cause **34% of disaster-related deaths**, exacerbate **poverty** and **displacement**.

### 5.14.5. State And Trends Of Carbon Pricing 2025

State and Trends of Carbon Pricing 2025 Report is released by the World Bank Group.

- As per the report, number of operational **Carbon Pricing (CP)** instruments has grown, from **5 (2005)** to **80 presently**, with **India**, **Brazil**, and **Türkiye** actively developing them.

#### Key Highlights of the Report

- **Coverage:** CP covers around **28% of global Greenhouse Gas (GHG) emissions**, with **43 carbon taxes** and **37 Emission Trading Systems (ETs)**.
- **Revenue Generation:** Globally, ETs and carbon taxes continued to generate over **USD 100 billion (2024)** for public budgets.

- **Sector Wise Coverage:** **Power** followed by **industry sector** have the highest coverage.
  - ➔ **Agriculture** and **Waste** remains largely uncovered.
- **Carbon Credit Supply Vs Demand:** Supply continued to outstrip demand, with almost **1 billion tons** of unretired credits in 2024, globally.

### Carbon Pricing and its Instruments



**Emissions Trading Systems:** Government sets a cap on GHG emissions or emission intensity for covered entities.



**Carbon Taxes:** Government levies a fee on covered entities for their GHG emissions.



**Carbon Crediting Mechanisms:** Tradable credits are generated through voluntary activities that reduce emissions.

### Key Provisions on CP

#### Global

- **Article 6 of Paris Agreement:** Provides basis for **facilitating international recognition** of cooperative carbon pricing approaches.
- **COP29** adopted final rules for **Article 6.2** and **Article 6.4**.
- **CBAMs:** Imposes **carbon price** on **imported goods**.

#### India

- **Carbon Credit Trading Scheme (2023):** **Compliance Mechanism** for **obligated entities**, **Offset mechanism** for **non-obligated entities**.

### 5.14.6. State of The Climate In Asia 2024

World Meteorological Organization releases **State of the Climate in Asia 2024 Report**

- WMO is a **specialized UN agency**.

#### Key Findings

- **2024 was Asia's warmest year**, temperatures **1.04°C** above average.
- **Asia warming twice as fast** as global average.
- **Glacial loss** in **Central Himalayas**.
- **Record sea temperatures**, **decadal warming rate** double global average.

### 5.14.7. New Ramsar Sites in Rajasthan

India added two more wetlands into **Ramsar list of Wetlands of International Importance**.

- **Khichan and Menar wetlands** in **Rajasthan** were declared **Ramsar Sites** on **World Environment Day 2025**, raising India's total count to **91**.
- **World Environment Day** is celebrated **annually on 5th June (Since 1973)** by **UN Environment Programme**. The **2025 theme** is **Beat Plastic Pollution**.



- With these additions, **Rajasthan now has four Ramsar sites**, including **Sambhar Salt Lake** and **Keoladeo Ghana National Park**.

### About New Ramsar Sites

- **Khichan Wetland**: Located in **Northern Thar Desert, Phalodi District**. Comprises **Ratri nadi and Vijaysagar talab** with riparian habitat. Hosts **migratory demoiselle cranes**.
- **Menar Wetland Complex**: Located in **Menar and Kheroda village, Udaipur District**. **Freshwater monsoon wetland** formed by **three ponds**. Notable species include **critically endangered white-rumped vulture** and **long-billed vulture**. **Over 70 plant species** found, including **mango trees** hosting **Indian flying fox colonies**.

### Ramsar Convention on Wetlands



#### Genesis:

Adopted in Ramsar, Iran (1971); effective from 1975.



#### About:

An intergovernmental treaty for wetland conservation and sustainable use.



#### Criteria:

A wetland must meet at least one of nine set criteria for international importance.



#### Secretariat:

Gland, Switzerland (based at IUCN Headquarters)



#### India:

Joined on Feb 1, 1982; holds the highest number of Ramsar sites in Asia (91 Ramsar sites).

### 5.14.8. Revised Guidelines on National Bioenergy Programme

The **Ministry of New and Renewable Energy (MNRE)** has updated guidelines on **'Waste to Energy'** and **'Biomass'** components of the **National Bioenergy Programme**.

- **Bioenergy**: **Renewable energy** generated from **biomass fuel** from **organic material** like harvest residues, crops and organic waste.

### What is the National Bioenergy Programme?

- **Launched: 2022.**
- **Implementation: Two phases** with **Rs. 1715 Crore budget**; **Phase-I (2021-22 to 2025-26)**.
- **Objective**: Utilize **surplus biomass** for **power generation** while providing **additional income** for rural households.
- **Central Financial Assistance (CFA)**: Provided to project developers. **Special categories** get **20% more CFA**.

### Three components

- **Waste to Energy**: Support projects for **generating Biogas, BioCNG, Power, or Syngas**.

- **Biomass Programme**: Support **Biomass Briquette/Pellet manufacturing** and **non-bagasse cogeneration** projects.
- **Biogas Programme**: Support **biogas plants** for **clean cooking fuel** and **improved sanitation**. **Biogas is 95% methane and CO<sub>2</sub>**.

### Key Features of Revised Guidelines

➤ <b>Waste to Energy Programme</b>	➤ <b>Biomass Programme</b>
➤ <b>Simplified Processes</b> : Easier approvals for <b>MSMEs</b> .	➤ <b>Simplified Processes</b> : <b>No clearance documents</b> needed for <b>briquette/pellet plants</b> .
➤ <b>Improved CFA Disbursal</b> : <b>Two-Stage Release - 50% CFA</b> after <b>State Pollution Control Board consent</b> , remaining after <b>80% capacity achievement</b> .	➤ <b>Tech Integration</b> : Enabling <b>IoT-based monitoring solutions</b> .
	➤ <b>Stubble Burning Support</b> : <b>Pellet producers in NCR</b> can choose <b>MNRE or CPCB scheme</b> .

### 5.14.9. Greater Flamingo Sanctuary

**Tamil Nadu** notified **Greater Flamingo Sanctuary at Dhanushkodi** to preserve a critical stopover point along the **Central Asian Flyway** for thousands of **migratory wetland birds**.

### About Greater Flamingo (Phoenicopterus roseus):

- **IUCN Status**: **Least Concern**
- **Distribution**: **Africa, western Asia (India), and southern Europe**.
- **Habitat**: Breeds in **shallow wetlands** that are **saline or alkaline**.
- **Features**: Great **dispersal capacity** but highly **philopatric** (returns to particular sites).
- **Kachchh Desert Wildlife Sanctuary in Gujarat** supports **South Asia's only breeding ground** of Greater Flamingos, known as **"Flamingo City"**.

### 5.14.10. Thirstwave

Researchers **coined the term Thirstwaves** for **extended periods of atmospheric thirst**.

### About Thirstwave

- **At least three consecutive days** when **evaporative demand** exceeds historical **90th percentile**.
  - ➔ **Evaporative demand** measures **atmospheric thirst** driven by **temperature, wind, humidity, sunshine**.
- Studying it helps **farmers manage water resources** and **improve crop yields**.



### 5.14.11. Global Ocean Darkening Threatens Underwater Ecosystems

A study by UK University researchers found that **21% of the global ocean had become darker** between 2003 and 2022, especially in **Arctic, Antarctic, and Gulf Stream regions**.

#### What is the Darkening of the Ocean?

- **Reduction in light penetration** into global oceans, shrinking the photic zone.
  - ➔ **Photic zone** is the **sunlit layer (200 meters depth)** where **90% of marine life** thrives.
- Current darkening could be due to **ecological shifts** driven by **phytoplankton and zooplankton blooms**.

#### Reasons behind darkening of the Ocean

- **Coastal Oceans:** **Nutrient, organic material and sediment loading** caused by **agricultural runoff and increased rainfall**.
- **Open Oceans:** **Warming of surface oceans** and climate-driven changes in **ocean circulation patterns**.

#### Impact of the Ocean Darkening

- **Marine ecology:** **Limits light-dependent processes** like **growth, photosynthesis**, limiting **ocean productivity**.
- **Fisheries industry:** **Fish stocks decline** due to **habitat compression**.
- **Climate regulation:** Hampers **carbon absorption** and **oxygen production**.

### 5.14.12. Energy Transition Index (ETI), 2025

**World Economic Forum (WEF)** recently released **Energy Transition Index (ETI), 2025**.

#### Key Findings

- **Sweden ranked first** followed by **Finland, Denmark and Norway**.
- **India's rank dropped** from **rank 63 in 2024 to rank 71 in 2025**.

#### About ETI

- Ranks countries on **progress towards energy transition** from **fossil fuels to clean energy**.
- **Two main aspects:** **System Performance** (energy security, equity & sustainability) and **Transition Readiness** (regulation, infrastructure, investment).
- **Index uses 43 indicators** and **scores countries on 0 to 100 scale**.

### 5.14.13. Third United Nations Ocean Conference (UNOC3)

The third **United Nations Ocean Conference (UNOC3)** concluded with the adoption of the **Nice Ocean Action Plan**.

- **UNOC3** was held in **Nice, France**, co-hosted by **France and Costa Rica**.

#### Key Highlights of Action Plan

- **Global roadmap** to support **SDG 14** - conserving and sustainably using **oceans, seas, and marine resources**. **SDG 14** is the **least funded** SDG.
- Reaffirms commitment to develop **international legally binding instrument on plastic pollution**.
- Called for **coordinated global action** to **reduce climate and acidification impacts** on oceans.

### 5.14.14. Integrated Biodiversity Assessment Tool (IBAT) Alliance

**IBAT Alliance** doubled its investment in biodiversity data from 2023 to 2024.

- Increased investment will support **World Database on Protected Areas, IUCN Red List** and **World Database of Key Biodiversity Areas**.

#### About IBAT Alliance

- **Headquarter:** **The UK**. (**Founded in 2008**)
- **Coalition of four** conservation organisations: **Birdlife International, Conservation International, IUCN, UNEP-WCMC**.
- **Mission:** Provide **data, tools and guidance** to help organisations act on **biodiversity-related risks**.








### 5.14.15. International Big Cat Alliance (IBCA)

The **1st assembly of the IBCA** convened in **New Delhi**, endorsed **Union Minister Shri Bhupender Yadav** as the **President of IBCA**.

- The **Assembly** serves as **apex decision-making body** and is convened **annually/biannually**.

#### About IBCA

- **Multi-country, multi-agency coalition** of **95 big cat range countries** for **big cat conservation**.
  - ➔ **Big Cats** include **Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar & Puma**.

Conservation Status of Big Cat Species			
Big Cat Species	IUCN Status	CITES Status	Wildlife Protection Act
 <b>Tiger</b> <i>Panthera tigris</i>	Endangered	Appendix I	Schedule 1
 <b>Lion</b> <i>Panthera leo</i>	Vulnerable	Appendix I	Schedule 1
 <b>Leopard</b> <i>Panthera pardus</i>	Vulnerable	Appendix I	Schedule 1
 <b>Snow Leopard</b> <i>Panthera uncia</i>	Vulnerable	Appendix I	Schedule 1
 <b>Cheetah</b> <i>Acinonyx jubatus</i>	Vulnerable	Appendix I	Schedule 1
 <b>Jaguar</b> <i>Panthera onca</i>	Near Threatened	Appendix I	Not Found in India
 <b>Puma</b> <i>Puma concolor</i>	Least Concern	Appendix I	Not Found in India

- **Genesis:** **Launched in April 2023** (occasion of **50 years of India's Project Tiger**).

- **Main Goal: Foster collaboration** by establishing platform for **sharing best practices** in big cat conservation.
- **Founding Members (16):** Including **Armenia, Bangladesh, Bhutan, India, Kenya, Nepal.**
- **India** is the **host country** and **Secretariat** for IBCA.

#### 5.14.16. Salkhan Fossil Park Added to UNESCO Tentative List for World Heritage Sites

It is officially known as **Sonbhadra Fossils Park** and is located in **Sonbhadra District of Uttar Pradesh.**

- It qualifies as **geo-heritage site** under **IUCN's 2020 guidelines for "Evolution of Life"** and matches **UNESCO's 2021 framework.**

#### About Salkhan Fossil Park

- Located in **Kaimur Range (part of Vindhya range),** adjacent to **Kaimur Wildlife Sanctuary.**
- One of the **oldest and most well-preserved sites** in the world (**fossils dating 1.4 billion years**).
  - ➔ **Site's fossil assemblage** features **Stromatolites** created by **Cyanobacteria communities.**
  - ➔ These **fossilized microbial structures** record the **Great Oxidation Event.**

#### Significance of Salkhan Fossil Park

- **Understanding early environment:** Features **varied stromatolite forms** indicating changes in **ancient water depth and sedimentation.**
- **Filling the Precambrian Gap:** Addresses gap in **World Heritage fossil record** by showcasing **Precambrian era** covering **85% of Earth's history.**

#### UNESCO World Heritage Sites

- A World Heritage Site is a location recognised by UNESCO for its **"outstanding universal value".**
  - ➔ It is guided by the **Convention Concerning Protection of World Cultural and Natural Heritage (called World Heritage Convention).**
- **Three categories:** Cultural heritage, Natural heritage, and Mixed heritage.
- **States Parties:** 196 states have ratified the Convention.

#### 5.14.17. Sustainable Development Goals Report 2025

SDGR monitors **global progress on the 2030 Agenda for Sustainable Development.**

#### Key highlights of the Report

<b>Goal 1</b>	8.9% in extreme poverty.
<b>Goal 2</b>	1 in 11 faced hunger.
<b>Goal 4</b>	110 million more in school, 272 million still out.

<b>Goal 5</b>	Women occupy less than a third in management.
<b>Goal 8</b>	Unemployment 5.0%, 58% informal work.
<b>Goal 10</b>	57% working-age employed.
<b>Goal 11</b>	3 billion with housing, 1.12 billion in slums.
<b>Goal 13</b>	2024 hottest year.
<b>Goal 16</b>	50,000 conflict deaths, 123.2 million displaced.

#### 5.14.18. National Indicator Framework (NIF) Progress Report 2025

**NIF by MoSPI** for monitoring **SDGs** at the national level.

#### Key Progress Highlighted

<b>SDG 2</b>	<b>Agriculture income</b> increased.
<b>SDG 6</b>	<b>Rural safe water access</b> increased.
<b>SDG 7</b>	<b>Renewable energy</b> increased, capacity increased from 64.04 to <b>156.31</b> watts per capita.
<b>SDG 8</b>	<b>Social protection</b> expanded 22% to <b>64.3%.</b>
<b>SDG 9</b>	<b>GDP emission reduced by 36%.</b>
<b>SDG 10</b>	<b>Gini coefficient</b> of household expenditure decreased.
<b>SDG 12</b>	<b>Waste processed</b> increased from 17.97% to 80.7%.
<b>SDG 15</b>	<b>Forest cover</b> rose from 21.34% (2015) to 21.76% (2023).

#### 5.14.19. Draft Rules For Carbon Credit Trading Scheme Issued

MoEFCC Issued Draft **Greenhouse Gas (GHG) Emission Intensity Target Rules, 2025** under Carbon Credit Trading Scheme (CCTS).

#### About Draft Rules

- **Defines GHG emission intensity (GEI)** ( $\text{CO}_2\text{e}$  per unit output) and sets binding targets for 400+ industrial units.
- **BEE** determine **targets.**
- **Sectors:** Aluminum, iron and steel, petroleum refining, petrochemicals, and textiles.
- Non-compliance attracts **penalties** under **Environment (Protection) Act, 1986.**

#### About CCTS

- Promotes carbon pricing.
- ECA 2022 **empowers government to specify scheme.**
- **Mechanisms:** Compliance (carbon credits for low emitters) and voluntary offset projects.
- **Administrator:** BEE
- **Regulator of Carbon Trading:** CERC

- **Significance:** Supports **Indian Carbon Market**, aligns with **UNFCCC and Paris Agreement**.
- World Bank's "**State and Trends of Carbon Pricing 2025**" report has recognized India's role **in shaping global climate finance and carbon pricing frameworks**.

### 5.14.20. New Rules For Contaminated Site Management Notified

MoEFCC notified **Environment Protection (Management of Contaminated Sites) Rules, 2025** under the Environment (Protection) Act, 1986.

#### Key highlights of the Rules

- **Aim:** Ensure responsible parties remediate polluted sites harming soil, water, health, and environment.
- **Coverage:** 189 hazardous substances; excludes radioactive waste, mining, marine oil spills, solid waste.
- **Response levels** vary by agricultural, residential, commercial, industrial areas.
- **Management:** Local bodies report sites; SPCBs assess, identify polluters, and approve clean-up plans; new owners liable if land sold.
- **Funding:** Central/State Governments cover initial costs; polluter reimburses within 3 months.
- **Penalties** for non-compliance; voluntary remediation allowed, filling legal vacuum for legacy pollution.

### 5.14.21. Awaza Programme of Action (2024-2034) (APoA)

UN **Conference on Landlocked Developing Countries (LLDC3)** in **Awaza, Turkmenistan** to implement newly adopted APoA.

#### About APoA:

- **Adoption:** Consensus at UNGA, December 2024, addressing LLDC development challenges.
- Offers a **comprehensive framework to tackle persistent development challenges faced by LLDCs**.
- **Key Deliverables:** Regional Agricultural Research Hubs (food security), Infrastructure Finance Facility (funding), UNFCCC Negotiating Body (trade, climate resilience).

### 5.14.22. 'Matri Van' Initiative

**Matri Van Initiative** launched in **Gurugram** to develop **urban forest in Aravalli hills**.

- Part of '**Ek Ped Maa Ke Naam**' programme.
- Aims: Boost ecological preservation and community involvement for urban sustainability.
- **Restoration:** Removes invasive species, plants native trees, restores Aravalli biodiversity.

### 5.14.23. Global Wetland Outlook 2025 Released

Released by Secretariat of the Ramsar Convention.

#### Key Highlights

- **Coverage:** Inland, coastal, marine wetlands span 1,800 million hectares; 22% lost since 1970.
- LICs/LMICs, especially Africa, **report most degradation**.
- **Ramsar goals align** with **Kunming-Montreal Global Biodiversity Framework**.
- **Threats:** Urbanisation, industrial and infrastructure development.
- **Best Practices:** Asia's **Regional Flyway Initiative** restores 140+ wetlands; **Seychelles** issues first **blue bond**.
- **Way Forward:** Integrate wetlands in national planning, natural capital accounting, and innovative finance like green/blue bonds.

### 5.14.24. ICJ Delivers Decision On Tackling Climate Change

Case on **global responsibilities toward climate action**, to **protect vulnerable SIDS led by Pacific Island nation of Vanuatu** and supported by +130 countries.

- **UN General Assembly** (2023) sought ICJ **advisory on states' environmental obligations** and **legal consequences**.

#### Key Highlights

- **Clean, Healthy, and Sustainable Environment is Human Right**
- **States Obligated to Limit Emissions**
- **Consequences for Non-Compliance:** Incur **legal responsibility** and **may be required to offer guarantees** of non-repetition.
- Some countries oppose mandated cuts, but ICJ opinion increases legal pressure for climate accountability.



#### International Court of Justice (ICJ)



**Established:** 1945 as UN's main judicial body.



**Functions:** Settles disputes between states and gives advisory opinions to authorised UN organs.



**Limitation:** Hears cases only when requested by states.



**Composition:** 15 independent judges, elected for 9 years by UNGA & UNSC.



**Relevance:** World Court for resolving disputes among 193 UN member states.

### 5.14.25. Assistance in Deploying Energy Efficient Technologies in Industries & Establishments (ADEETIE) Scheme Launched

#### About ADEETIE

- **Eligibility:** MSMEs with **Udyam ID** showing  $\geq 10\%$  energy savings.
- **Implementation:** BEE.
- **Duration:** 3 years (FY 2025–28).
- **Target Sectors:** 14 energy-intensive sectors.
- **Implementation Approach:** Phased roll-out.
- **Components:** Interest subvention (3–5%), technical support, energy audits, project reports, and financial incentives.

#### Bureau of Energy Efficiency (BEE)



**Legislative Framework:** Energy Conservation Act 2001



**Objective:** Reduce energy intensity of Indian economy



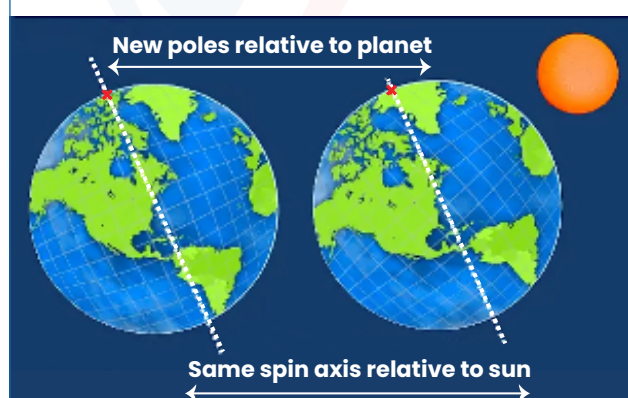
**Other Initiatives:** BEE-SME Program for energy efficiency, National Programme on Energy Efficiency and Technology Upgradation, SIDHIE portal

### 5.14.26. Human-Made Dams Have Shifted Earth's Poles

Dam construction has shifted Earth's rotational axis by over 1 meter since 1835, driving **True Polar Wander (TPW)**.

- **TPW:** Rotation of Earth's solid crust/mantle around liquid core **to maintain rotational balance**, traditionally driven by glacial melt, tectonics, and ocean shifts.
- **Dams' Role:** **Reservoirs redistribute mass inland, altering rotation**; effects vary with dam size and location.
- **Impacts:** **Affects satellite navigation**, space telescopes, and slightly **lengthens Earth's days**.

#### True Polar Wander



### 5.14.27. C-Flood, A Unified Inundation Forecasting System Inaugurated

**C-FLOOD:** Unified web-based platform offering **2-day flood forecasts and inundation maps** up to **village-level** for disaster management.

- **Covers:** 40 mha (~12%) flood-prone area; **currently Mahanadi, Godavari, Tapi basins**.
- **Uses:** 2-D hydrodynamic modelling; integrated with NDEM portal.
- **Developed by:** C-DAC, CWC, DoWR, NRSC.
- **Execution:** Under the **NSM (2015)** with the aim to empower India in supercomputing capabilities, by **MeitY & DST**.
- Planned expansion to all Indian river basins; aids preparedness with water level predictions and decision-support for authorities.
- Forecasts to be integrated with the **National Disaster Management Emergency Response Portal (NDEM)**.

### 5.14.28. India's Water Management

**Parliamentary Standing Committee on Water Resources** socio-economic losses from floods and water scarcity despite tech and investment advances.

#### Key Themes and recommendations

Themes	Current Status/Issues	Recommendations
<b>Flood Forecasting</b>	CWC manages 340 sites (22 states, 2 UTs), to reach 375 by 2026.	Upgrade system for climate change challenges.
<b>Interlinking of Rivers Program</b>	30 projects identified; state consensus lacking.	Study benefits, raise awareness, expedite implementation.
<b>Dam Safety</b>	459 of 6,000+ dams have EAPs; Dam Safety Act, 2021 mandates completion by 2026.	<b>National Dam Safety Authority</b> to engage dam owners.
<b>Rainwater Harvesting</b>	Jal Shakti Abhiyan adds 11.36 BCM groundwater (2017–2024).	Provide <b>financial grants to States/UTs</b> .
<b>Proactive approaches</b>	<b>Draft National Water Policy</b> under consideration.	Manage cross-border flooding; include MPs/MLAs in Ganga Mission.



### 5.14.29. Blue Nationally Determined Contributions (NDC) Challenge

Brazil and France launched the **Blue NDC Challenge**.

- Eight countries – **Australia, Fiji, Kenya, Mexico, Palau, and Seychelles** – have joined the initiative.

#### About Blue NDC Challenge

- Calls on countries to place **ocean at the heart of their NDCs** ahead of **COP30**.
- **Supported by:** Ocean Conservancy, Ocean & Climate Platform, and World Resources Institute.

#### Role played by Ocean in addressing the climate crisis

- **Carbon Dioxide Absorption:** Ocean absorbs **30% of global CO2 emissions**.
  - ➔ **Coastal habitats** sequester carbon **four times higher** than terrestrial forests.
- **Heat Regulation:** Captures **90% of excess heat** from greenhouse gas emissions.
- **Renewable Energy:** **Offshore wind** can meet **one-third of global electricity needs**.

#### Initiatives to Protect Ocean Ecosystems



##### Marine Protected Areas (MPAs):

Regions designated for conservation, restricting activities to protect marine life.



##### UN Decade of Ocean Science for Sustainable Development (2021–2030):

Aims to stimulate ocean science to reverse ocean decline and promote sustainable development.



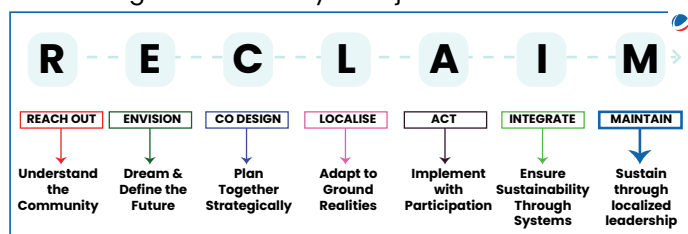
##### Indian Initiative:

MISHTI (Mangrove Initiative for Shoreline Habitats & Tangible Incomes), Deep Ocean Mission etc.

### 5.14.30. Reclaim Framework

**RECLAIM Framework (refer to infographics):** Launched by **Coal Ministry** for inclusive community engagement during mine closure and repurposing.

- **Developed by:** Coal Controller Organisation with Heartfulness Institute.
- **Focus:** Mitigate impacts on landscapes and livelihoods, ensure gender inclusivity, support vulnerable groups, and align with Panchayati Raj Institutions.



### 5.14.31. Weather Derivatives

India to launch first **weather derivatives** via NCDEX-IMD partnership, **using rainfall-based products**.

- **Aims:** Help farmers hedge against irregular rainfall, heatwaves, and unseasonal weather.
- Contracts **use historical and real-time IMD data; location-specific and seasonally structured**.
- **About weather derivatives:** Unlike financial derivatives, they are **based on meteorological parameters** and a **weather index; globally traded since 1990s**, marking India's first major step.

### 5.14.32. Winter Fog Experiment (WiFEX)

**WiFEX** completes 10 years dedicated research into North India's dense winter fog.

#### About WiFEX

- **World's long-term open-field experiments** focused on fog.
- **Institutions:** Indian Institute of Tropical Meteorology under Ministry of Earth Sciences (MoES).
- **Objective:** To develop better now-casting (next 6 hours) and forecasting of winter fog.

### 5.14.33. Tokara Islands

More than 1,000 earthquakes rattled Tokara Islands in southern Japan.

- Japan is **one of the world's most seismically active countries**, sitting on top of four major tectonic plates along western edge of the Pacific "ring of fire".

#### About Tokara Island

- **Archipelago** in Japan, south of Kyushu and north of Amami Islands.
- **Toshima** (Japan's longest village) located here.

### 5.14.34. Sundarbans Tiger Reserve

NBWL approved West Bengal's proposal, making STR India's second-largest tiger reserve after **Nagarjunasagar-Srisailem**, rising from 7th among 58 reserves.

#### Procedure to declare or alter Tiger reserve

- **Notification:** State Governments notify under Section 38V, Wildlife (Protection) Act, 1972, on NTCA advice.
  - ➔ **Steps:** State proposal, NTCA in-principle approval, detailed proposal, NTCA recommendation, State notification.
- **Alteration:** Section 38W(1) requires NTCA recommendation and NBWL approval, based on State proposals.

## Sundarbans Tiger Reserve (STR)



**Location:** Coastal districts of West Bengal



**Only mangrove forest** (with Bangladesh) housing a significant tiger population



**Borders:** Bangladesh (east), Bay of Bengal (south), River Matla (west), Rivers Bidya & Gomdi (north-west)



**Recognition:** National Park area is a **natural UNESCO World Heritage Site** and part of the **Sundarban Biosphere Reserve**

### 5.14.35. Bitra Island

Lakshadweep administration is considering acquisition of Bitra for defence purposes.

#### About Bitra Island

- **Smallest inhabited island** in territory of Lakshadweep having land area of **0.105 sq km**.
- **Location:** Near the Agatti Island, Arabian Sea.
- **Climate:** Categorised as 'Aw' i.e., tropical savannah.  
➔ Average rainfall: **~1600 mm a year**.

#### About Lakshadweep

- **India's smallest** Union Territory.
- **Consists:** **36 coral islands, located in the Arabian Sea**.
- Atoll, lagoon and reefs are the three main geographical features.

### 5.14.36. Global Outlook Council on Water Investments

South Africa President announce launch of GOCWI.

#### About GOCWI

- Launch: **G20 Presidential Legacy Initiative**, key part of **GWP's** Transformation Agenda.  
➔ **GWP:** Multi-stakeholder network for **equitable, sustainable water management**.
- **Role:** High-level platform to boost global water investment momentum.

### 5.14.37. UNDP Equator Initiative Award

**Bibi Fatima Women's SHG** winners of the 'Equator Initiative Award'.

#### About Award

- **Presentation:** Biennial award by UNDP's Equator Initiative.
- **Purpose:** Supports Indigenous Peoples and local communities in land restoration, biodiversity, and livelihoods.
- **Recognition:** Known as the Nobel Prize for Biodiversity Conservation.

#### About Bibi Fatima SHG

- Introduced **millet-based mixed cropping** on rainfed farms, promoted **climate-resilient farming systems**, etc.

### 5.14.38. Uttarakhand To Assess 'Tourist Carrying Capacity' In Nainital District

The survey seeks a **long-term strategy** to protect Nainital's hill towns **from unregulated tourism, vehicular traffic, and population pressure**.

- **NGT (Sept 2024)** directed classifying Nainital **based on carrying capacity and environmental sensitivity**.
- **Carrying Capacity:** **Maximum population an area** can sustain considering **biotic** (vegetation, hydrology) and **abiotic** (terrain, climate) factors.
- **Assessment Approaches:** **Planetary boundaries** (environmental crises) and **Biocapacity Overshoot** (Earth Overshoot Day).
- **Significance:** Guides sustainable development by **balancing economic growth with ecological limits**.

#### Precautionary Principle for assessment of Carrying Capacity



Taking **Preventive actions** in face of uncertainty



**Shifting burden** of proof on **proponents** of the activity



Exploring **alternatives** to potential harmful actions



Increasing public participation in **decision-making**

**Proactive regulation and adaptive planning** enable sustainable tourism, prevent irreversible damage, and offer governance templates for fragile regions.

### 5.14.39. Etalin hydroelectric project

An expert panel of the **Union Environment Ministry** has **recommended environmental clearance** for the **Etalin hydroelectric project**.

#### About Etalin hydroelectric project

- **Location:** Dibang valley, Arunachal Pradesh, Eastern Himalaya **Biodiversity Hotspot**.

- **Rivers:** Dri and Tangon rivers, merging to form the Dibang River.

#### 5.14.40. Kariyachalli Island

Uninhabited island has sunk significantly due to rapid erosion and rising sea levels.

##### About Kariyachalli island:

- **Location:** Between Rameshwaram and Thothukudi in the **Gulf of Mannar Marine National Park region, Tamil Nadu.**
- **Tamil Nadu Sustainably Harnessing Ocean Resources (TNSHORE) project** will try to restore the reefs around island with **artificial modules, planting seagrass beds and reviving marine life.**

#### 5.14.41. Chenab River

Forest advisory committee granted **'in-principle' approval for diversion of forest land** for construction of **Sawalkot HEP on Chenab River.**

- Sawalkot HEP (one of six strategic hydropower)
- **Aim: Optimizing use of Indus waters.**

##### About Chenab River

- Origin: **Bara Lacha Pas.**
  - ➔ **Two streams: Chandra and Bhaga** join to form Chenab.
- Chenab valley is **structural trough formed by great Himalayan and Pir Panjal ranges.**
- **Tributaries:** Miyar Nalla, Sohal, Thiro, Bhut Nalla, Marusudar and Lidhari.
- Vedic period known as **Chandrabhaga, Ashkini or Iskmati.**

#### 5.14.42. Drake Passage

Magnitude 7.5 earthquake has struck drake passage near Argentina and Chile.

##### About Drake Passage

- **Location:** Between Cape Horn and South Shetland Islands.
- **Name:** After **Sir Francis Drake**, famous English navigator and circumnavigator.
- **Ocean Current:** Water majorly flows from **west to east** and forms part of **Antarctic Circumpolar Current.**
- **Historic Trade Route:** Key passage for trade.
- **Sailing Challenge:** Known for **stormy seas and icy conditions.**

#### 5.14.43. Changing Nature Of Floods

IIT Delhi & Roorkee study shows **changing riverine flood patterns** (1970–2010) across 170+ stations.

#### Key highlights of the study

- **Decline in Magnitude:** **74% stations** show reduced floods; notable in **West/Central Ganga** (17%/decade), **Narmada, Marathwada.**
- **Rise in Pre-Monsoon Flood Intensity: Malabar Coast.**
- **Shift in Flood Timing: Upper Ganga (delayed), Central India (earlier), Southern India (later).**

#### 5.14.44. Pollution Control Boards

SC overturned Delhi High court, ruling PCBs can impose environmental compensation (EC), not just courts.

- EC is a **policy instrument for the protection of the environment** which works on the Polluter Pay Principal.

##### Key highlights

- **Statutory mandate:** PCBs can levy EC under Section 33A (Water Act, 1974) and Section 31A (Air Act, 1981).
- **Polluter Pays principle:** EC applies only when environmental harm is proven (e.g., Indian Council case).
  - ➔ **Indian Council for Enviro-Legal Action v. Uol:** SC held Polluter Pays principle.
- **Action:** PCBs can penalize, restore damage, or both (Vellore Citizens' case, 1996 supports compensatory/remedial liability).
  - ➔ **Vellore Citizens' Welfare Forum v. Union of India** (1996): Liability for environmental damage includes both a compensatory and remedial aspect.
- **Preventive measures:** Regulators can act proactively.

#### Pollution Control Boards (PCBs) in India

- **Central PCB (CPCB):** Statutory body under MoEFCC, formed under Water Act, 1974, also oversees Air Act, 1981; advises Central Government.
- **State PCBs (SPCBs):** Formed under same acts, support CPCB in state-level environmental enforcement.

#### 5.14.45. Recent Volcanic Eruptions

Volcano	Features
<b>Mount Etna</b>	<b>Location:</b> Sicily Island, Italy <b>Highest Mediterranean island mountain</b> <b>Most active stratovolcano in the world</b> <b>Europe's largest active volcano.</b> <b>A UNESCO World Heritage Site.</b>
<b>Mount Lewotobi Laki-laki</b>	<b>Location:</b> Flores Island, Indonesia. Part of the Pacific Ring of Fire
<b>Kilauea volcano</b>	<b>Location:</b> Southeastern part of the island of Hawaii, U.S. <b>Shield Volcano</b>

## 5.15. TEST YOUR LEARNING

### 1. Consider the following statements regarding the Coalition for Disaster Resilient Infrastructure (CDRI)

1. The headquarters of CDRI is located in Geneva, Switzerland.
2. CDRI was launched by India at the UN Climate Action Summit in 2019.

Which of the above statements is/are correct?

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

### 2. Ocean darkening impacts which layer of the ocean most directly?

- (a) Aphotic zone
- (b) Benthic zone
- (c) Photic zone
- (d) Neritic zone

### 3. With reference to India's efforts towards urban resilience, consider the following statements:

1. India's urban population is projected to reach 1.1 billion by 2070, with over 70% of new jobs expected in cities by 2030.
2. Pluvial flooding risk is rapidly increasing, with annual losses estimated at \$5 billion by 2030.
3. The private sector contributes significantly to urban infrastructure financing, accounting for over 50% of total investments.

Which of the statements given above is/are correct?

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

### 4. Regarding India's Ethanol Blending Programme, consider the following statements:

1. India has achieved its 20% ethanol blending target in petrol by 2025.
2. The National Policy on Biofuels (2018), as amended in 2022, advanced the 20% blending target to 2025-26 from 2030.
3. 1st Generation Ethanol is primarily made from ligno-cellulosic biomass or agricultural residues.

Which of the statements given above is/are correct?

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

### 5. With reference to Tiger Reserves in India, consider the following statements:

1. Tiger Reserves are notified by the Central Government under the Wildlife (Protection) Act, 1972.
2. No alteration in the boundaries of a Tiger Reserve can be made without the recommendation of the National Tiger Conservation Authority and the approval of the National Board for Wild Life.
3. Sundarbans Tiger Reserve is now the largest Tiger Reserve in India after its recent expansion.

Which of the statements given above is/are correct?

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

### Mains Question

#### Q1. (150 words)

"Coastal zones are economic lifelines yet ecological risk zones." Analyze the vulnerabilities of India's coastal regions to climate change. How is India addressing these risks through national and global initiatives?

#### Q2. (250 words)

Agroforestry is not just a farming practice but a strategic tool for climate resilience and rural sustainability." Discuss the significance of agroforestry in India's sustainable development goals. Also highlight the challenges and recent reforms aimed at promoting it.



# SOCIAL ISSUES



## Table of Content

6.1. MANOSPHERE . . . . .	112	6.8. RISING SUICIDES AMONG STUDENTS . . . . .	118
6.2. GLOBAL GENDER GAP 2025 . . . . .	112	6.9. SOCIAL ISOLATION . . . . .	119
6.3. WOMEN IN ARMED FORCE . . . . .	113	6.10. CULTURAL APPROPRIATION . . . . .	120
6.4. URBAN MIGRATION . . . . .	114	6.11. TIER-2 INFLUENCERS REDEFINING CULTURAL CAPITAL IN DIGITAL INDIA . . . . .	121
6.5. ADI KARMAYOGI ABHIYAN . . . . .	115	6.12. GLOBAL TOBACCO EPIDEMIC 2025 . . . . .	121
6.6. YEARS OF NATIONAL EDUCATION POLICY (NEP) . . . . .	116	6.13. NEWS IN SHORTS . . . . .	123
6.7. IMPROVEMENT IN QS WORLD UNIVERSITY RANKINGS . . . . .	118	6.14. TEST YOUR LEARNING . . . . .	127

## 6.1. MANOSPHERE

### Why in the News?

UN Women has raised concerns over the growing threat of the “manosphere,” a network of online communities undermining gender equality.

### What is Manosphere?

- **Definition:** Encompasses online communities promoting narrow, aggressive definitions of masculinity and anti-feminist narratives.
  - ➔ Equates male worth with dominance, wealth, and control over women.
- **Purpose:** Spread hate, misogyny, and gender bias via digital platforms.

### Negative impacts

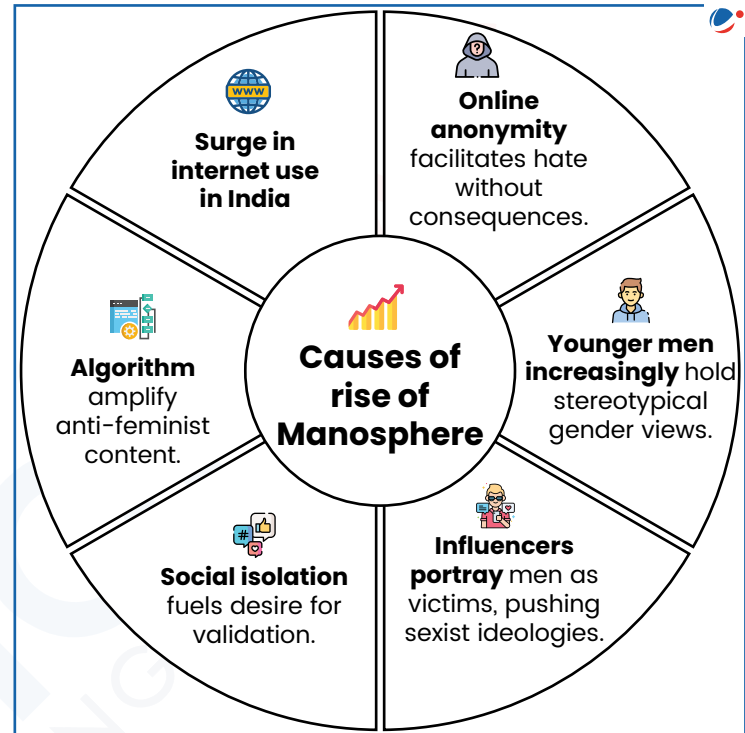
- Increased misogyny and normalizes violence (e.g., Gamergate).
- Reduces men’s confidence, mental health, and well-being.
- Reversing progress in gender equality.
- High rates of online violence against women (16–58%).

### Existing mechanisms

- **World**
  - ➔ Beijing Declaration and Platform for Action (1995)
  - ➔ ‘Making All Spaces Safe’ Initiative (UNFPA)
  - ➔ EU’s Digital Services Act
- **India**
  - ➔ Indecent Representation of Women (Prohibition) Act, 1986
  - ➔ IT Rules, 2021
  - ➔ Digital Shakti by NCW
  - ➔ Information Technology (Amendment) Act, 2008
  - ➔ Section 75, 78, 79, of the BNS

### Way Forward

- Legal measures: Such as Online Safety Act of UK.
- Promoting media literacy and digital resilience.
- Support survivors, youth-focused programming.
- Uplift anti-manosphere creators like HeForShe.



## 6.2. GLOBAL GENDER GAP 2025

### Why in the News?

**Global Gender Gap Report 2025** released.

### About Global Gender Gap Index

- By World Economic Forum
- Measures gender parity across four dimensions: Economic, Education, Health, and Political.
- Parity score of 1 indicates full parity and 0 denotes complete inequality.

### India’s Overall Performance (2025)

- **Economic Participation and Opportunity:** Performance improved; economic participation rose 0.9% to 40.7%.
- **Educational Attainment:** India scored 97.1%, showing gains in female literacy and higher education.
- **Health and Survival:** Higher parity due to improved sex ratio and life expectancy, despite overall decline in life expectancy.
- **Political Empowerment:** Parity dropped by 0.6 points. Female MPs declined from 14.7% to 13.8%; women ministers from 6.5% to 5.6%.

### Key Findings

- **India: Ranked 131<sup>st</sup> out of 148 countries** (down from 129 in 2024), though score improved to 0.644.
- **South Asia:** Bangladesh ranked 24, Nepal 125, Sri Lanka 130, Bhutan 119; all ahead of India.
- **Global:** Iceland topped for 16th year. Gender gap over 30%; full parity may take 123 years.

### Challenges for India

- **Social:**
  - ➔ Female literacy (65.46%) lags males (82.14%).
  - ➔ Child marriage at 23.3%; rising female suicides; 13 lakh+ missing women (2019–21).
  - ➔ Patriarchy, caste, digital divide—only 33% women use internet (NFHS-5).
- **Economic:** Women's unpaid care work is 3.1% of GDP; 97% work in unorganized sectors.
- **Health:** 57% women anaemic, MMR at 97, poor reproductive health.
  - ➔ **Prevalence of Anemia:** Nearly 57% of Indian women in the 15 to 49 age group are anaemic as reported by National Family Health Survey (NFHS)-5 which reduces their ability to learn, work, or carry pregnancies safely.
  - ➔ **Maternal Mortality Ratio (MMR):** It is 97 in 2018–20 less than 70 as recommended by WHO by 2030.
  - ➔ **Reproductive Health:** Around 50 million women in India suffer from reproductive health problems.
- **Political:** Declining participation.

### Government Initiatives

- Nari Shakti Vandan Adhiniyam
- POSHAN Abhiyaan
- Beti Bachao Beti Padhao Scheme
- Pradhan Mantri Matru Vandana Yojana
- One Stop Centre (OSC)
- Universalization of Women Helpline

### Conclusion

Expanding women's participation in the workforce, strengthening leadership pipelines, improving skills-to-work transitions, enhancing policy implementation, and ensuring inclusive outcomes in global trade is needed to ensure improvement in Gender parity.

## 6.3. WOMEN IN ARMED FORCE

### Why in the news?

The **first batch of 17 female cadets** graduated from the **National Defence Academy (NDA)**.

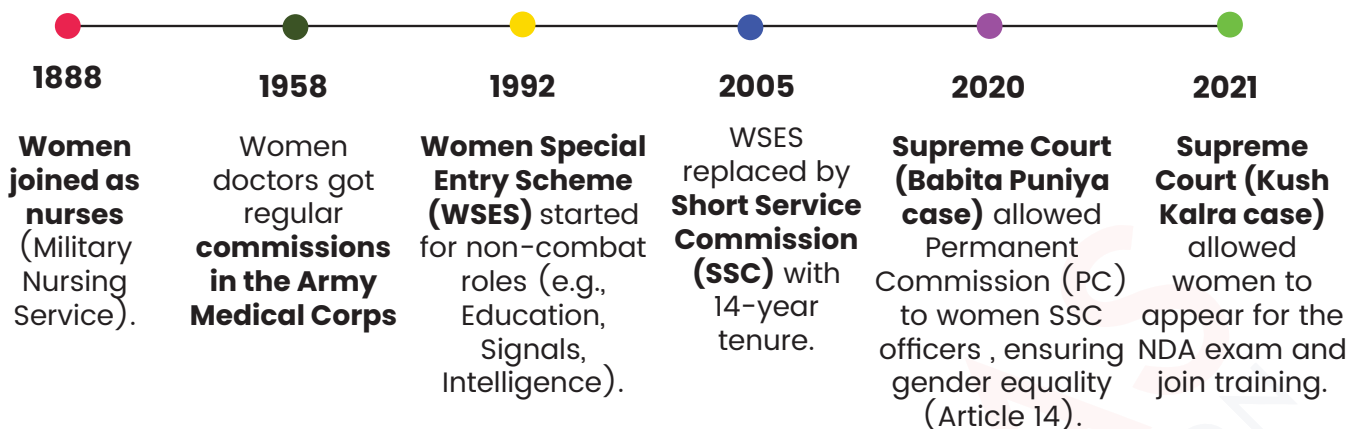
### Significance of Women in Armed Forces

- **Constitutional Equality:** Upholds **Article 14, 15** and **16**, ensures inclusivity in defence.
- **Operational Strength:** Enhances team diversity and decision-making.
- **Social Impact:** Break gender stereotypes; women lead in combat and support roles (e.g., Op Sindoor).
- **Humanitarian Role:** Crucial in civic missions, especially in culturally sensitive areas.

### Steps to boost participation

- **Policy: Permanent Commission** in 11 services; Women Agniveers with equal standards.
- **Structural:** Women pilots (Army Aviation Corps), posted on warships.
- **Outreach:** IAF'S 'DISHA' Cell promotes awareness.

## Evolution of Women in the Indian Armed Forces



### Challenges

- Gender bias & societal attitudes
- Infrastructure deficits
- Physical demands & training gaps
- Work-life imbalance

### Conclusion

As warfare evolves to prioritize technology, intelligence, and adaptability over physical strength, increasing women's participation in India's armed forces requires comprehensive reforms across multiple dimensions.

## 6.4. URBAN MIGRATION

### Why in the News?

IIT Indore research shows **rural-to-urban migration** reshaping city life, work conditions.

### What is Migration?

- **Definition: Movement of people** from their usual residence to a new place, either across borders or within a state (**International Organisation for Migration**).
- **Circular Migration: Repetitive migration** where low-income groups move for seasonal/short-term work and return to their origin after employment ends.
- **Census Definition of Migrant (India):** A migrant is identified by
  - ➔ **Place of Birth (POB):** If birthplace differs from place of enumeration.
  - ➔ **Place of Last Residence (PoLR):** If last residence differs from place of enumeration.

### Status of Migration in India

- **Urban Migration (MoSPI)**
  - ➔ **Migration Types:** Rural-to-urban (18.9%), urban-to-urban (15.9%), rural-to-rural (55%), urban-to-rural (10%).
  - ➔ **Urban Growth:** By 2030, over 40% of India's population will live in urban areas (Economic Survey 2023-24).
- **Share of Migrants**
  - ➔ **Population Share:** Migrants are 28.88% (40.2 crore) of the population (2023), down from 37.64% (45.57 crore) in 2011.
  - ➔ **Key States:** Uttar Pradesh, Maharashtra, Andhra Pradesh, Bihar, and West Bengal account for ~48% of outbound migrants; Maharashtra, Uttar Pradesh, Andhra Pradesh, West Bengal, and Tamil Nadu receive a similar share of inbound migrants.
  - ➔ **Inbound migration:** Rises fastest in West Bengal, Rajasthan, and Karnataka; declines in Maharashtra and Andhra Pradesh (EAC-PM).



## Factors Driving Urban Migration

➤ **According to the Census 2011:** Marriage, Moved with household, Work, Moved after birth, Education, other.

## Factors influencing Migration

	Push Factors	Pull Factors
<b>Social &amp; Political</b>	➤ <b>Persecution, War</b> , Political instability.	➤ <b>Peace, stability</b> , liberal asylum policies.
<b>Demographic &amp; Economic</b>	➤ <b>Unemployment, Economic decline</b> , low wages.	➤ <b>Higher wages, better jobs, educational, healthcare.</b>
<b>Environmental &amp; Climate</b>	➤ <b>Natural disasters, Climate change impacts</b> (droughts, rising seas).	➤ Pleasant climate, <b>safer environmental conditions</b>

## Consequences of Urban Migration

- **Economic:**
  - ➔ **Growth:** Skilled and seasonal migrants contribute ~10% to GDP (UNDP).
  - ➔ **Living Standards:** Remittances improve housing, education, and business.
  - ➔ **Challenges:** Informal sector dominance (90% of India's workforce), low wages, no social security. E.g., Covid-19 exodus of 11.4 million migrants.
- **Demographic:** Alters population balance, skews sex ratios. **E.g., Kottayam's sex ratio** (1040) lower than Kerala's (1084).
- **Social & Psychological:** Brings modernization but faces discrimination, language barriers, and ghettoization. E.g., 2008 Maharashtra attacks. Housing strain, e.g., Pune's 564 slums (30-40% population).

## Government Initiatives

- **Ayushman Bharat PMJAY:** Health coverage for vulnerable migrants.
- **Pradhan Mantri Garib Kalyan Yojana (PMGKY):** Free food grains, cash transfers for poor migrants.
- **One Nation One Ration Card (ONORC):** Portable ration cards for food security.
- **e-Shram Portal:** Database for unorganised workers' welfare.
- **PM SVANidhi:** Collateral-free loans for street vendors.
- **Pradhan Mantri Shram Yogi Maandhan (PMSYM):** Pension for unorganised workers, including migrants.

## Way Forward

- **Working Group on Migration (2015):** Enact legal safeguards for migrants' rights, remove domicile barriers for jobs/services, etc.
- **Expand Kerala Migration Survey: Nationwide** adoption for better migration governance.

# 6.5. ADI KARMAYOGI ABHIYAN

## Why in the News?

The Ministry of Tribal Affairs launched Adi Karmayogi Abhiyan.

## Flagship Tribal Initiatives

- **Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) (2023):** Socio-economic development for 75 PVTG communities in 18 states and one UT.
- **Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (2024):** Comprehensive tribal development addressing infrastructure, healthcare, education, and livelihoods.
- **National Sickle Cell Elimination Mission (2023):** Tackles sickle cell disease, focusing on tribal populations.
- **Eklavya Model Residential Schools (EMRS):** Quality education for ST children in remote areas.

## About Adi Karmayogi Abhiyan

- **Overview:** Tribal grassroots leadership program to empower communities, enhance governance, and create local leaders across India.

- **Target:** Develop **20 lakh cadre for over 1 lakh tribal villages** reaching **10.5 crore tribal citizens**.
- **Vision:** Tribal Seva Path for responsive governance and last-mile service delivery.
- **Key Objectives:** Promote transparent governance, participatory planning, etc.
- **Part of:** Janjatiya Gaurav Varsh for Bhagwan Birsa Munda's 150th birthday.

### Key Features

- **Structure:** Multi-tiered leadership from habitation to State.
- **Convergence:** Tribal Welfare, Rural Development, Women & Child, Jal Shakti, Education, Forest.
- **Strategy:** Governance workshops (RPLs at Bengaluru, Bhopal, etc.), Village Vision 2030, mentorship (retired officials, tribal elders), **Aadi Karmayogi Digital Platform**.

### Benefits/Outcomes

- **Services:** 100% saturation (roads, housing, water, electricity, Ayushman Bharat).
- **Infrastructure:** 1 lakh Adi Sewa Kendras, 100+ student chapters (IITs, NITs, IIMs), Single Window Governance Centres per village.

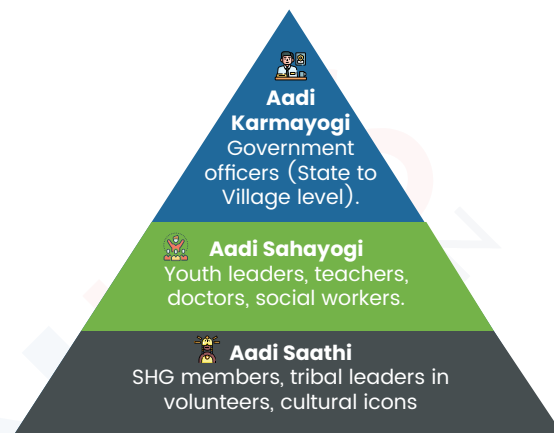
### Importance

- **Delivery:** Fivefold DAPST budget rise but weak outcomes due to gaps.
- **Poverty:** 40.6% STs below poverty line vs. 20.5% non-tribal (Tribal Health report).
- **Culture:** Preserves languages, arts; e.g., TRIFED's GI tagging.
- **Ecology:** Leverages traditional practices; e.g., Dongria Kondh millet farming.
- **Democracy:** Gram Sabha-selected cadre ensures trust and sensitivity.

### Conclusion

A tribal cadre can bridge gaps, reduce poverty, empower Gram Sabhas, and preserve culture/ecology for inclusive nation-building.

### Three Pillars of Leadership



## 6.6. YEARS OF NATIONAL EDUCATION POLICY (NEP)

### Why in the News?

NEP completed **5 years**.

### About NEP 2020

- India's third education policy (post-1968, 1986), **based on Kasturirangan Committee recommendations**.
- **Principles:** Focus on conceptual understanding, technology integration, light yet robust regulation, diversity, equity, inclusion, research, and continuous progress review.

### Key Targets of NEP 2020

<p><b>Universal FLN</b> in primary school by 2025.</p>	<p><b>100% GER</b> in preschool to secondary level by 2030.</p>	<p><b>6% Public Investment</b> in Education (% of GDP)</p>	<p><b>50% GER</b> in higher education including vocational education by 2035.</p>	<p>All <b>higher education institutions (HEIs)</b> to become multidisciplinary institutions, <b>by 2040</b>.</p>	<p>At least <b>50% of learners</b> through school and higher education to have exposure to <b>vocational education</b> by 2025.</p>
--	---	--	---	--	---

## Key Achievements

### ➤ School education

- ➔ Primary **GER nearly universal** at 93%
- ➔ Dropout rates declined (primary 1.9%, upper primary 5.2%, secondary 14.1%).
- ➔ **Digitalization**: Schools with computers rose from 38.5% to 57.2%, internet access from 22.3% to 53.9%.

### ➤ Higher Education

- ➔ **GER increased** from 23.7% to 28.4%
- ➔ **HEIs** grew 13.8%.

### ➤ Rural schools

- ➔ FLN directives reached 80% of 15,728 schools.
- ➔ **Enrolment** 95% among 6–14 years.
- ➔ 15–16-year-old non-enrolment dropped from 13.1% to 7.9%.

### ➤ Teacher Training: **12.97 lakh** trained under **NISHTHA**.

### ➤ Innovation: 92,168 patents filed, **HEIs contributing** 25%.

## Key Government Schemes/Initiatives

- **PM SHRI**: Revamping **14,500 schools (2022–2027)**
- **NIPUN Bharat**: FLN by Grade (2026–27).
- **ONOS**: Nationwide **access to research journal**.
- **CwsN**: PM e-Vidya (Sign Language); Screening–PRASHAST.
- **PRERNA**: Residential experiential learning IX – XII.
- **ULLAS (NILP)**: Adult literacy for 15+ years.
- **Vidyanjali**: School volunteer and CSR participation.
- **RVSK**: **Real-time** school performance data for **decision-making**.

### ➤ **Inclusivity**: **7.58 lakh girls** enrolled in residential schools.

### ➤ **International** campuses established.

### ➤ **Literacy**: Ladakh first fully literate unit.

### ➤ **Multilingualism**: Exams in 12 languages.

### ➤ **PARAKH** surveyed 21.15 lakh students.

## Hurdles in implementation

### ➤ **Funding**: Education expenditure **~3% of GDP vs target of 6%**; input-driven financing limits learning outcomes.

### ➤ **Centre–States divide**: Some states (e.g., Kerala, West Bengal) refused PM–SHRI MoUs requiring full NEP adoption.

### ➤ **Institutional Delays**: HECI formation and Teacher Education Curriculum pending.

### ➤ **Over-regulation**: 50+ regulations under UGC/AICTE burden education and research.

### ➤ **Retention rates**: Higher secondary retention only 45.6% (Economic Survey 2024–25).

### ➤ **Other issues**: **Teacher tech barriers**, opposition to **Three-Language Formula**, limited ECE learning time (35 min/day), and infrastructural/faculty gaps in Four-Year UG degree rollout.

## Way forward for NEP 2020

### ➤ **Outcomes-based financing (OBF)**: Link funds to verified outcomes, not inputs.

### ➤ **Stronger coordination**: Shared **monitoring and local adaptation**.

### ➤ **Tech-enabled learning**: Use AI for teacher training and student tutoring.

### ➤ **Peer learning**: Initiatives like Mission Ankur for FLN skills.

### ➤ **Capacity Building**: Faculty development and leadership support.

### ➤ **Decentralization and Flexibility**: Allow institutions to adapt NEP, fostering innovation.

## Conclusion

NEP 2020 has advanced inclusivity, quality, and digital access, but greater funding, governance, and infrastructure are vital for full success.

## 6.7. IMPROVEMENT IN QS WORLD UNIVERSITY RANKINGS

### Why in the News?

India has seen significant improvement of Indian institutions in QS World University Rankings 2026.

### About QS World University Rankings

► **Published by:** London-based **Quacquarelli Symonds**.

#### Key findings

- India ranks 4th globally with 54 universities (up from 11 in 2015).
- 8 new Indian entries, highest for any country.
- 6 institutions ranked in global top 250.
- Representation from both public and private institutions.
- 12 IITs featured, **IIT Delhi highest** at 123rd.
- **Based on five Lenses:** Research and Discovery, Employability and Outcomes, Global Engagement, Learning Experience, Sustainability.
- Ten indicators used, **new addition International Student Diversity**.

### Reasons for improvement

- **Better academic reputation**, 8 Indian universities in global top 100 for citations/faculty.
- Good performance of Engineering and technology
- **Infrastructure** boost via **PM-USHA**.
- **Enhanced employability** through PM Internship Scheme, NATS 2.0.
- Strong sustainability and knowledge exchange impact.
- **Reform** under NEP 2020 promoting quality and inclusivity.

### Challenges in higher education

- **Low Accreditation:** Only 39% universities accredited due to high costs.
- **Low GER:** GER at 28.4% (2021–22), far from NEP 2035 target of 50%.
- **Insufficient Research Funding:** R&D spending around 0.7% of GDP, affecting innovation.
- **Skills Gap:** Disconnect between academia and industry; limited soft skills training.
- **Outdated Curriculum:** Lacks updates in AI and emerging technologies.
- **Fragmented Regulatory:** Multiple bodies hinder MERU implementation.

### Way forward

- **Strengthen Industry-academia** ties (e.g. TASK)
- Promote **Need-based education** (e.g., AP Skill Census 2025).
- Invest in interdisciplinary degrees.
- **Consolidate regulators** (NEP's single body).
- **Empower faculty**
- **Enhanced funding**

## 6.8. RISING SUICIDES AMONG STUDENTS

### Why in the News?

SC in **Sukdeb Saha v. State of Andhra Pradesh** issued guidelines to protect students' mental health amid rising suicides.

### Mental Health Crisis among Students

- **NCRB (2022): 7.6% suicides were students.**

- **Student suicides (2012–2022):** Male **99%** and Female **92%**.

### Other SC Judgements

- **Amit Kumar v. Union of India (2025):** National Task Force on student mental health, suicide prevention in HEIs.
- **Shatrughan Chauhan v. Union of India (2014)** and **Navtej Singh Johar v. Union of India (2018):** Mental health integral to Right to Life (Article 21).

### Factors Behind Student's Mental Health Crisis

- **Academic Pressures:** Exam stress, dissatisfaction, failure.
- **Systemic Issues:** Ragging, bullying, harassment.
- **Culture of Silence:** Lack of open discussion, weak safeguards.
- **Regulatory Gaps:** No unified framework on student mental health.
- **Family Issues:** Conflict, neglect, financial stress, loss, addiction, mental illness.
- **Others:** Low self-esteem, isolation, caste/gender discrimination.

### Initiatives to improve Students Mental Health

- **Mental Healthcare Act, 2017:** Ensures rights-based care; decriminalises suicide.
- **National Strategy for Suicide Prevention (2022):** Reduce suicides by 10% by 2030.
- **Tele MANAS:** Toll-free nationwide tele-mental health service.
- **Manodarpan:** MoE initiative for student-teacher mental wellbeing.
- **Malaviya Mission:** Faculty training for early intervention under NEP 2020.
- **Coaching Centers Guidelines:** Counsellor support, no batch segregation, records maintenance.

### Way Forward: SC guidelines

- **Uniform Mental Health Policy:** Annually reviewed and updated.
- **Appoint Counsellor/Psychologist/Social Workers:** In institution with **100 or more students**.
- **Mandatory Training:** On mental health and first-aid.
- **Grievance Redressal Mechanism:** In all educational institutions.
- **Parental sensitization:** On academic pressure, empathy, and distress signs.
- **Extracurricular Activities:** To be prioritized.
- **Coaching Hubs:** Stronger protections, structured career counselling.
- **Residential Educational Institutions:** Ensure campuses free of bullying, drugs, harassment.

### Conclusion

Student mental health needs holistic action: peer support, funding, accountability, safe digital use, stigma reduction, early intervention, and accessible care.

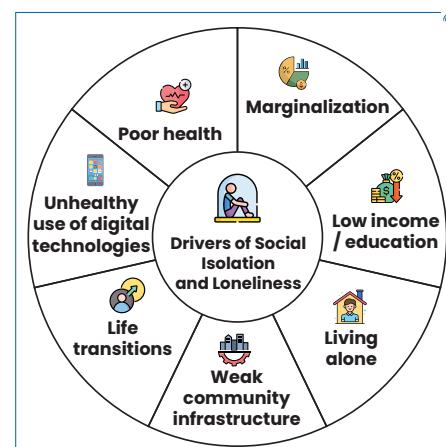
## 6.9. SOCIAL ISOLATION

### Why in the news?

WHO report **"From Loneliness to Social Connection"** highlights health, well-being, and societal impacts of social isolation.

### What is Social Connection and Disconnection?

- **Connection:** Interaction with family, friends, peers, colleagues, neighbours.
- **Disconnection:** Lack/poor quality of relationships.
  - ➔ **Loneliness:** Gap between desired vs actual connections.
  - ➔ **Social Isolation:** Few relationships/rare interactions.





### About Kolhapuri Chappals

- **Origin:** dates back to 12th Century King Bijjal and PM Basavanna of Bidar.
- **Handcrafted** in Maharashtra and Karnataka using bag-tanned vegetable leather.
- Known for braided straps, cutwork, durability.
- **GI-tagged** in 2019.

### Key Highlights of Report

- **Disconnection:** 1 in 6 feel lonely (2014–23); youth loneliest; 1 in 3 older adults, 1 in 4 teenagers isolated.

### Roadmap for Improving Social Connection

- **Policy:** National strategies (e.g., Denmark, Finland, Germany).
- **Research:** Strengthen global/national capacity, launch challenges.
- **Interventions:** Accelerator, stronger community infrastructure.
- **Measurement:** Global Social Connection Index.
- **Engagement:** Campaigns, events, group activities and social prescribing.
- **Disparities:** 24% lonely in low-income vs 11% in high-income countries.
- **Impacts:** 871k deaths (2014–19), depression, dementia, poor academics, productivity loss.

## 6.10. CULTURAL APPROPRIATION

### Why in the News?

Italian luxury brand Prada was accused of cultural appropriation for selling flat leather sandals resembling India's traditional Geographical Indication (GI)-tagged Kolhapuri chappals.

### What is Cultural Appropriation?

- It is when a **dominant group** adopts elements from a marginalized culture in a disrespectful or exploitative way.
  - ➔ It involves profiting financially or socially from another culture without consent.
- **Other examples:**
  - ➔ **U.S brand Starbucks** "Golden Latte" mirrors traditional Indian turmeric milk (Haldi Doodh).
  - ➔ **Italian brand Gucci** selling floral embroidery kaftans resembling Indian kurtas.

### Reasons behind Cultural Appropriation

- **Lack of IP protection.**
- **GI rights are territorial and limited internationally**, making legal action difficult abroad (e.g., Kolhapuri chappals in Italy).
- **Digital Marketplace Loopholes** like resale and reproductions remain unchecked.
- **Lack of enforcement and awareness:** Over 10,000 families make Kolhapuri chappals, but only 95 are registered under the GI framework.

### Ethical dimensions involved in Cultural Appropriation

- **Violates Kantian Ethics** by using cultures as **means to an end** (profit), not respecting communities.
- **Utilitarianism:** Short-term corporate gains cause long-term harm to cultural dignity and artisan livelihoods.
- Erodes artisan livelihoods, denying freedom and economic opportunities per Amartya Sen's Capability Approach.

### How has globalization impacted India's cultural heritage?

#### Positive Impact

- **Cultural Exchange:** Indian instruments like sitar and tabla feature in Western music.
- **Global Recognition:** Yoga, Ayurveda, Bollywood, and classical music are globally popular.

#### Negative Impact

- **Homogenisation:** Global platforms influence youth, sidelining local arts.
- **Cultural Erosion:** Traditional attire is replaced by Western clothing.

## Conclusion

Controversy highlights the need for stronger global IP protections and ethical practices to preserve marginalized communities' cultural heritage and artisan livelihoods.

# 6.11. TIER-2 INFLUENCERS REDEFINING CULTURAL CAPITAL IN DIGITAL INDIA

## Why in the News?

Rise of Tier-2 and Tier-3 **digital influencers** from smaller towns is reshaping digital influence and cultural capital in India.

## What is Cultural Capital?

- Non-economic assets like education, language, and cultural knowledge enabling social mobility (Pierre Bourdieu).
- Traditionally metro-centric, with dominance of English, elite institutions, and urban aesthetics.



## Rise of Tier-2 Influencers

- Creators from cities like Patna, Surat, and Guwahati with regional identity and large online followings.
- Social media democratized content creation and access.

## How They Redefine Cultural Capital

- **Decentralization of Taste:** Regional aesthetics now rival urban ones.
- **Vernacular Power:** Over 50% of urban users prefer regional languages; ShareChat has 180M+ users.
- **Folk Revival:** Folk music and traditions gain digital presence (e.g., Village Cooking Channel).
- **Authenticity as Aspiration:** Relatable influencers redefine success.
- **Subaltern Voices:** Platforms empower Dalit, tribal, and OBC creators (e.g., Khabar Lahariya).

## Challenges

-  **Digital Divide**
-  **Stereotyping and Tokenism**
-  **Algorithmic Bias**
-  **Commodification of Culture**

## Implications

- **Cultural Inclusion:** Validates non-mainstream local cultures and practices.
- **Economic Upliftment:** Empowers Tier 2-3 creators through monetization platforms like Moj and ShareChat.
- **Digital Political Influence:** Local influencers shape public opinion and electoral narratives.
- **Urban-Rural Integration:** Promotes unity while celebrating regional identities, breaking rural stereotypes.

## Conclusion

Tier-2 influencers herald a more inclusive and democratic cultural discourse, valuing **authenticity over elitism** and **diversity over uniformity**.

# 6.12. GLOBAL TOBACCO EPIDEMIC 2025

## Why in the News?

WHO released tenth report on the **Global Tobacco Epidemic 2025**.

## Key findings of report

- **WHO MPOWER:** Since 2007, 155 countries adopted, benefitted over 6.1 billion people, includes six components—Monitor, Protect, Warn, offer help, enforce bans, Raise taxes.
- **Progress:** Graphic warnings most implemented; India leads in curbing tobacco promotion, including digital platforms.
- **Challenges:** Tobacco taxation least adopted; affordability rising in India since 2014.
- **Impact:** 7M+ tobacco-related deaths annually.

### About the Tobacco

- **Species:** Over 60 species, *N. tabacum* and *N. rustica* widely cultivated; native to **South America**.
- **Climate:** Needs 90–120 frost-free days; 20–30°C ideal; dry harvest preferred.
- **Soil/Rainfall:** Well-drained sandy loam; 500–1200 mm rainfall.
- **Production:** India ranks 2nd globally in production and exports (unmanufactured).
  - ➔ Gujarat leads with 45% share, followed by AP.
- Tobacco Board (Guntur) supports farmers and promotes exports.

### Various steps taken to tackle the tobacco epidemic

- **Global Initiatives:**
  - ➔ **WHO FCTC:** Ratified by 180+ countries; India joined in 2005.
  - ➔ **3 by 35 Initiative (WHO):** Aims to raise prices of tobacco, alcohol, sugary drinks by 50% by 2035.
- **India Initiatives:**
  - ➔ **COTPA, 2003:** Bans public smoking, sale to minors.
  - ➔ **Packaging Rules, 2022:** Mandate graphic health warnings
  - ➔ **NTCP:** Reduces tobacco use and supply.
  - ➔ **E- Cigarettes ban 2019.**

### Conclusion

Implementing robust monitoring systems, **increasing tobacco taxation and prices**, strong legislations with strong enforcement, efforts to raise awareness and addressing tobacco industry interference can be effective in **tackling the tobacco epidemic**.



# C<sup>Monthly</sup>urrent Affairs

## Revision 2026

GS Prelims & Mains



English Medium

28 SEPTEMBER



Scan to  
know more



▶ Live/Online Classes are available








## 6.13. NEWS IN SHORTS

### 6.13.1. WHO Report On Social Connection

#### WHO Report: 'From Loneliness to Social Connection'

- Released by WHO Commission on Social Connection; highlights health and societal impacts of loneliness and isolation.

#### Drivers of Social Isolation and Loneliness

-  Life Transitions
-  Weak Community Infrastructure
-  Living Alone
-  Low Income / Education
-  Marginalization
-  Poor Health
-  Unhealthy Use of Digital Technologies

#### Definitions

- Social Connection:** Involves relationships with family, friends, peers, and coworkers.
- Social Disconnection:** Includes **loneliness** (gap between desired and actual connection) and **social isolation** (few or infrequent relationships).

#### Key Findings

- 1 in 6 globally feels lonely; youth (13–29) most affected.
- 1 in 3 older adults and 1 in 4 teens are socially isolated.
- Loneliness causes 871,000 deaths; harms mental health, learning, and productivity.

### 6.13.2. Global Education Monitoring 2024 Report

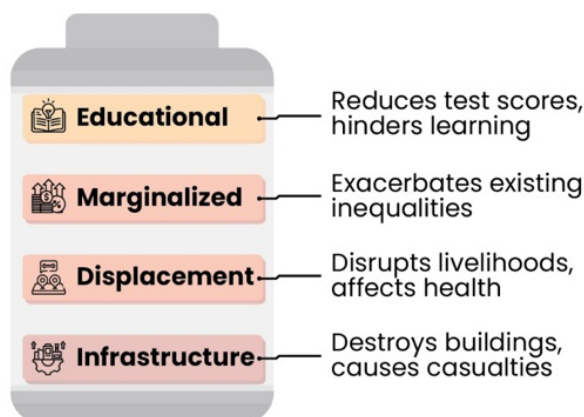
- Report mandated by UNESCO's 'Education 2030 Incheon Declaration' monitors SDG 4 and related SDGs.

#### Key findings

- 75% of extreme weather events closed schools, affecting 5 million.
- India study: early rainfall shocks harmed language, math, and skills.

- Fast progress in primary out-of-school rates; slow in lower secondary and gender gaps.
- Education's climate role underrepresented; SDG 4 in only 2 of 72 climate initiatives.

#### Impact of Climate Change on Education



**Recommendations:** Integrate climate education, train educators, build resilient infrastructure, include education in climate finance, and engage diverse stakeholders.

### 6.13.3. Kerala Becomes India's First 100% Digitally Literate State

Achievement stems from **Digi Keralam programme**, aims to extend digital revolution and e-services to all residents.

- Foundation:** Builds on Akshaya project, making Malappuram India's first e-literate district.

#### Digital Literacy

- Definition:** Ability to use digital technologies for meaningful actions in daily life.
- Household:** At least one member (5+ years) can operate a computer and use the internet.

#### Positive Impacts

- Efficiency:** Enhances government services (e.g., Kisan Call Centres, CSCs).
- Connectivity:** Offers global access for information, social life, and decision-making.
- Democracy:** Boosts citizen engagement in governance.
- Inclusion:** Accelerates DBT, UPI, and financial schemes.
- Skills:** Imparts ICT skills, boosting livelihoods.

**Concerns related to Digital Literacy in India:** Ethical Use of the Internet, Protection of Personal Data, Threats of Cyber Security.

Kerala's achievement as first digitally-literate state, a model for inclusive digital transformation.

### 6.13.4. Performance Grade Index (PGI) 2.0

#### About PGI

- **Genesis:** 2017, revamped as PGI 2.0 in 2021.
- **Released by:** Ministry of Education
- **Data sources:** UDISE+, NAS, PM-POSHAN, PRABAND and Vidyanjali.
- Assesses States/UTs on 1000 points across 73 indicators in 6 domains.

#### Key Findings of the Report

- **No state/UT** achieved the **top four grades**
- **Chandigarh ranked highest (Prachesta-1); Meghalaya lowest (Akanshi-3).**
- 24 improved; 12 saw decline.
- Inter-state disparity declined.

### 6.13.5. Multidisciplinary Education and Research improvement in Technical Education (MERITE) Scheme

**Union Cabinet** approved Budgetary Support for **MERITE Scheme**.

#### About MERITE Scheme

- **Type:** Central Sector Scheme
- **Nodal Ministry:** Ministry of Education
- **Objective:** Enhance quality, equity, and governance in technical education across all States/UTs, aligned with NEP 2020.
- **Budget:** Rs.4200 crore (2025–30), including Rs.2100 crore loan from World Bank.
- **Beneficiaries:** 275 technical institutions (175 engineering, 100 polytechnics).

### 6.13.6. Gender Budgeting Knowledge Hub Portal

**Portal Launch:** The Union Ministry of Women and Child Development launched the Gender Budgeting Knowledge Hub Portal at the National Consultation on Gender Budgeting.

#### About the Portal:

- A centralized repository of tools like policy briefs, best practices, and gender-disaggregated data.
- For use by central/state ministries and stakeholders.
- Includes proposal submission for gender budgeting training.

#### About Gender Budgeting:

- Integrates gender equality into planning and budgeting.
- Analyses budgets for gender impact, prioritization, and allocations.

**Need in India:** Ensures gender-sensitive policies, responsive governance, participatory budgeting, and legal framework strengthening.



#### Gender Budgeting Timeline

- **2005–06:** Gender Budgeting Adopted by Government of India (GoI)
- **2008–09:** Child Budgeting Adopted by GoI
- **2024–25:** Revision of Gender Budget Statement (GBS) Format

### 6.13.7. Role Of Social Organisations

Lok Sabha Speaker stressed the role of social organisations in national and societal development.

- **Social organization:** Structured groups through which individuals interact; formal (religious, educational, labour unions) or informal (family, peers).

#### Role of Social Organizations in Nation Building

Social Institutions	Role in Nation Building
Family	Transmits values, norms, moral behaviour; fosters harmony and inclusiveness.
Religious Institution	Provide moral framework, strengthen compassion, charity, social order, and community cohesion.
Educational institution	Impart knowledge/skills; instil discipline, teamwork; prepare individuals for responsibilities.
NGOs	<b>Policy Advocacy</b> (e.g. Mazdoor Kisan Shakti Sangathan & RTI). <b>Awareness &amp; Capacity-Building</b> (e.g. SEWA on gender issues). <b>Service delivery</b> (e.g. Pratham in education) <b>Strengthening Democracy</b> (e.g. ADR against criminalisation of politics).

Social organisations shape values, culture, and governance, making them vital for building inclusive, sustainable, and resilient societies.

### 6.13.8. Child Adoption

CARA issued directions to States/UTs for strengthening counselling support at all stages of child adoption.

- **Legal Framework:** Directions under **JJ Act, 2015 (amended 2021)** and **Adoption Regulations, 2022**.

#### Key Directions to SARAs:

- **Strengthen psychosocial support** for PAPs, adopted children, and biological parents.
- **Designate/empanel qualified counsellors** at District & State levels.



- Provide psychosocial interventions when required by **Specialised Adoption Agencies (SAAs) or District Child Protection Units (DCPUs)**.

### Child adoption In India

- **Nodal Ministry:** Ministry of Women and Child Development
- **Laws:** Hindu Adoption and Maintenance Act of 1956 and Juvenile Justice (Care and Protection of Children) Act, 2015.
- **Central Agency:** CARA (under JJ Act) regulates domestic & intercountry adoptions.
- **International Framework:** Hague Convention (1993) ensures ethical, transparent adoptions, prevents trafficking.
- **State Role:** Implement JJ Act via SARAs, CWCs, and DCPUs.

### Central Adoption Resource Authority (CARA)



#### Status

Statutory body under Ministry of Women and Child Development



#### Function

Monitors domestic and international adoptions



#### Role

Central Authority for inter-country adoptions under Hague Convention (1993), ratified by India in 2003

### 6.13.9. State of World Population Report 2025

#### About the Report

- UNFPA's SWP 2025 report titled *"The Real Fertility Crisis"* emphasizes reproductive agency as the true global fertility challenge.
- Highlights unmet fertility aspirations like unintended or underachieved pregnancies.
- Urges policies prioritizing rights-based choices over population control, enabling people to form families they truly desire.

### 6.13.10. Registrar General of India (RGI)

RGI asked States to take steps towards achieving universal registration of births and deaths.

#### About RGI

- Appointed under the **Registration of Births and Deaths Act, 1969**.
- **Ministry:** Ministry of Home Affairs.
- **Key Responsibilities**

- **Housing & Population Census (Census Act)**
- **Civil Registration System (CRS)** for the compulsory registration of births and deaths.
- **Others:** Sample Registration System, National Population Register, Mother Tongue Survey, etc.

### 6.13.11. Kashi Declaration Adopted In Youth Spiritual Summit For Drug-Free India

**Under Mera Yuva (MY) Bharat framework**, the Youth Spiritual Summit launched a youth-led anti-drug campaign.

- **MY Bharat:** Autonomous body for youth development using technology.

#### Kashi Declaration

- 5 year **roadmap** for De-Addiction.
- **Treats substance abuse** as a public health & societal challenge.
- **Institutional mechanism:** Joint National Committee, annual reports, national support platform.
- **Integration** of spiritual, cultural, educational & technological efforts.

#### Other Anti-Drug Initiatives

- NDPS Act, 1985
- PITNDPS Act, 1988
- NAPDDR (2018-25)
- Nasha Mukh Bharat Abhiyaan, 2020

### Drug-abuse in India (2019 Survey)

- **14.6%** (age 10 and 75) consume alcohol.
- **Cannabis and Opioids** next most common.

#### Driving factor behind Drug Abuse



**Social Factors:** E.g., Peer pressure, family conflicts, and social isolation



**Economic Factors:** E.g., Unemployment and poverty



**Psychological Factors:** E.g., Mental health issues like anxiety and depression



**Academic/Work Stress:** E.g., High pressure in education and jobs increases risk, especially among youth.



**Availability:** India is located between Golden crescent and golden triangle.

### 6.13.12. Talash Initiative

**NESTS**, under the **Ministry of Tribal Affairs**, with **UNICEF India**, launched the TALASH initiative.

#### About TALASH

- National program supporting educational and personal development of students in Eklavya Model Residential Schools (EMRSs).

- EMRS: Residential schooling for tribal children in blocks with >50% ST population.
- **Digital platform which offers-**
  - ➔ **Psychometric Assessments:** Inspired by NCERT's 'Tamanna' initiative
  - ➔ **Career Counselling**
  - ➔ **Life Skills & Self-Esteem Modules**
  - ➔ **E-Learning for Teachers**

### 6.13.13. State of Food Security And Nutrition In The World (SOFI) 2025 Report Released

#### Key findings of the report

- **Global hunger** dropped to 8.2% in 2024, but rises persist in Africa and Western Asia.
- **Moderate or severe food insecurity has declined** gradually since 2021.
- **Food prices** increased in 2023-24, raising the cost of a healthy diet; global population unable to afford it fell from 2.76 billion (2019) to 2.60 billion (2024).
- **Anemia in women** and **adult obesity** are rising.

#### India specific

- **Excluding India, lower-middle-income countries** show increasing inability to afford a healthy diet.
- Kerala fishermen and wholesalers used mobile phones to reduce price dispersion and waste.

### SOFI 2025



#### About

Joint initiative of FAO, IFAD, UNICEF, WFP and WHO



#### Purpose

Annual global monitoring of SDG 2 targets 2.1 and 2.2 to end hunger, food insecurity and malnutrition

#### Recommendation

- **Targeted fiscal measures** and **social protection** programs.
- **Align fiscal and monetary policies** to stabilize markets.
- **Strengthen agricultural market information systems.**

# ESSAY

## ENRICHMENT PROGRAMME 2026

### 12 OCT, 2 PM

- ▶ Introducing different stages from developing an idea into completing an essay
- ▶ Practical and efficient approach to learn different parts of essay
- ▶ Regular practice and brainstorming sessions
- ▶ Inter disciplinary approaches
- ▶ **LIVE / ONLINE** Classes Available
- ▶ Available in English & हिन्दी

## 6.14. TEST YOUR LEARNING

1. According to the WHO's report on the Global Tobacco Epidemic 2025, which MPOWER measure has been the least adopted globally?

- (a) Warning people about the dangers of tobacco.
- (b) Enforcing bans on tobacco advertising, promotion, and sponsorship.
- (c) Raising taxes on tobacco.
- (d) Offering help to quit tobacco use.

2. Consider the following statements regarding the QS World University Rankings 2026:

- 1. India is the most represented country in the rankings, surpassing the US and UK.
- 2. IIT Delhi is the highest-ranked Indian institution.
- 3. The rankings are published by the World Economic Forum.

Which of the statements given above is/are correct?

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

3. Consider the following statements regarding the National Education Policy (NEP) 2020:

- 1. It is the first education policy in independent India.
- 2. The policy aims for multilingualism, recommending the medium of instruction until at least Grade 5 (preferably Grade 8 and beyond) in local languages.

3. The Academic Bank of Credit (ABC) is a key feature in higher education, allowing digital storage of academic credits.

Which of the statements given above is/are correct?

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

4. According to the Census 2011, which of the following is the primary reason for rural-to-urban migration in India?

- (a) Education
- (b) Work
- (c) Marriage
- (d) Natural disasters

5. The Adi Karmayogi Abhiyan aims to develop a cadre of tribal leaders primarily to achieve which of the following outcomes in tribal areas?

- (a) Industrialization of tribal lands
- (b) 100% saturation of government services
- (c) Privatization of tribal resources
- (d) Migration of tribals to urban centers

### Mains Question

#### Q1. (150 words)

While the entry of women into combat roles in the armed forces is a significant step towards gender equality, deep-seated structural and societal challenges persist. Discuss these challenges and suggest measures for creating a more inclusive and effective defense force.

#### Q2. (250 words)

Examine the push and pull factors driving urban migration in India and evaluate their socio-economic consequences on both origin and destination areas. What measures have been taken to mitigate associated challenges?

# SCIENCE & TECHNOLOGY



## Table of Content

7.1. SPACE PROGRAMME OF INDIA . . . . .	129	7.5. BLACK HOLE MERGER . . . . .	132
7.2. INDIA'S FIRST COMMERCIAL EARTH OBSERVATION (EO) SATELLITE CONSTELLATION . . . . .	130	7.6. NEWS IN SHORTS . . . . .	133
7.3. NISAR (NASA-ISRO SYNTHETIC APERTURE RADAR) SATELLITE . . . . .	130	7.7. TEST YOUR LEARNING . . . . .	139
7.4. AXIOM-4 MISSION . . . . .	131		

## 7.1. SPACE PROGRAMME OF INDIA

### Why in the News?

Lok Sabha discussed **Critical Role of the Space Programme for Viksit Bharat by 2047**.

### More on the News

- **Highlight:** Subhanshu Shukla's International Space Station (ISS) trip (Axiom-4 Mission) symbolizes India as Vishwabandhu Bharat.
- **Profile:** India's **first** ISS astronaut, **second Indian in space** after Rakesh Sharma (1984).

### Critical Role of Space Programme/Technology

Sector/Sphere	Challenges	Space-based Solutions
<b>Agriculture</b>	Erratic monsoons, low productivity	<b>INSAT-3D/3DR; Resourcesat</b> , etc.
<b>Infrastructure</b>	Planning delays	<b>PM Gati Shakti</b> uses ISRO imagery, etc.
<b>Disaster Management</b>	Vulnerability to disasters	<b>ISRO's DMS</b> for real-time monitoring.
<b>Security</b>	Border gaps	<b>GSAT-7 &amp; RISAT, Mission Shakti</b>
<b>Autonomy</b>	GPS dependence	<b>NavIC</b> for indigenous navigation
<b>Environment</b>	Deforestation, etc	<b>NISAR</b> will study land & ice, etc
<b>Healthcare</b>	Remote areas	<b>Telemedicine Project</b>
<b>Education</b>	Rural-urban divide	<b>EDUSAT</b> for distance learning.
<b>Transparency</b>	Welfare leakages	<b>Geo-tagging of MGNREGA assets</b>
<b>Water Management</b>	Groundwater depletion.	<b>Bhuvan-SRISHTI Geoportal</b>

### How progress in Space Sector makes India Vishwabandhu?

- **Collaboration:** NISAR as global scientific handshake.
- **Leadership:** South Asia Satellite (GSAT-9) and NavIC for neighbors.
- **Sharing:** Chandrayaan-3 data on PRADAN; UNNATI training.
- **Cost-Effectiveness:** Economical MOM; 400+ satellites launched.
- **Sustainability:** Debris-Free Space Missions by 2030.
- **Aid:** COSPAS-SARSAT membership.

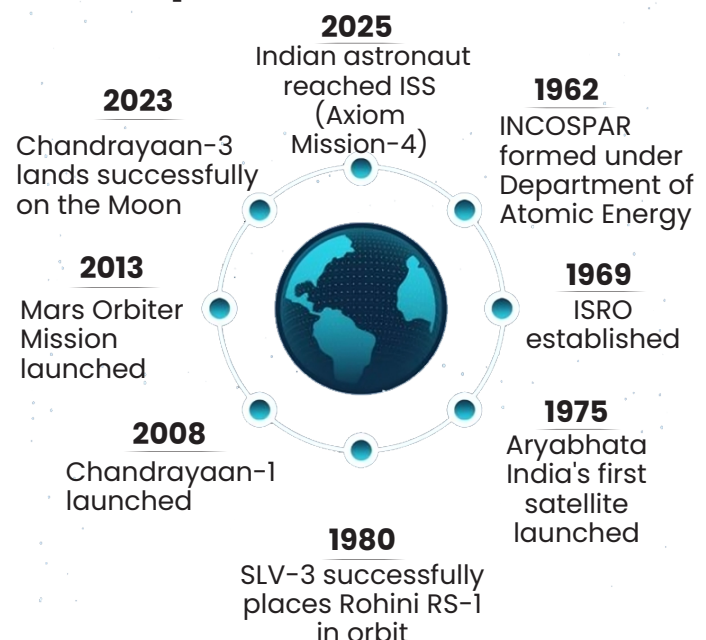
### Policy intervention

- **India Space Policy 2023:** Promotes private sector in space economy.
- **FDI/Startup Ecosystem:** 100% FDI in space components; over 300 startups.
- **Framework:** NewSpace India Limited (NSIL) (commercial arm), IN-SPACe (facilitator).

### Conclusion

Space programme drives growth, cooperation, and sustainability; targets BAS by 2035 and lunar mission by 2040 for Viksit Bharat@2047.

### India's Space Milestones





## 7.2. INDIA'S FIRST COMMERCIAL EARTH OBSERVATION (EO) SATELLITE CONSTELLATION

### Why in the News?

**PixxelSpace India-led Consortium won IN-SPaCe proposal for India's first fully indigenous commercial Earth Observation Satellite System (EOSS).**

### More on the News

- **Consortium:** Comprises Piersight Space, Satsure Analytics and Dhruva Space.
- **EO-PPP model:** Private sector designs/operates EOSS; government provides support.
- **Funding:** ₹1,200 crore private investment, rejecting ₹350 crore government aid.

### About EOSS

- **Structure:** 12 advanced EO satellites over 5 years.
- **Sensors:** Panchromatic, multispectral, hyperspectral, SAR.
- **Applications:** Climate monitoring, disaster management, agriculture, security, geospatial intelligence.

### About Earth Observation (EO) Satellites

Also called as Earth remote sensing satellites, they are designed to collect information about activities on Earth, both natural and artificial, including physical, chemical, biological and human systems.

- **Applications:** Earth sciences, environment & wildlife, disaster management, etc.

### Significance of Private participation

- **Economy:** Boosts \$8.4 billion space economy to \$44 billion by 2033 (7-8% global share).
- **Innovation:** E.g., Pixxel's Firefly for hyperspectral imaging.
- **ISRO Focus:** Enables advanced missions for Atmanirbhar Bharat.
- **Jobs:** Creates high-skilled opportunities, reduces brain drain.
- **Self-Reliance:** Enhances data sovereignty.
- **Leadership:** 300+ startups strengthen global position (2% current share).

### Government Initiatives to promote Private sector participation in Space sector

- **IN-SPaCe:** 2020 agency for private participation.
- **Space Policy 2023:** Regulatory clarity.
- **Venture Fund:** ₹1,000 crore for startups.
- **Tech Transfer:** 10 ISRO technologies to industries.
- **FDI:** 100% FDI in space sector.

### Challenges regarding Private sector participation in Space

- **Legislation:** Lack of comprehensive law causes legal ambiguity.
- **Operations:** Regulatory delays due to multiple approvals.
- **Technology:** Limited capacity increases import reliance.
- **Demand:** Upstream sector nascent, downstream dominant (80%).

### Conclusion

Pixxel-led EOSS marks a new era of public-private synergy, aiming for global leadership and Viksit Bharat with policy support and collaboration.

## 7.3. NISAR (NASA-ISRO SYNTHETIC APERTURE RADAR) SATELLITE

### Why in the News?

NISAR satellite was successfully launched from Satish Dhawan Space Centre, Sriharikota.

### About NISAR

- **Joint ISRO-NASA, L & S-band microwave imaging satellite;** fully **polarimetric and interferometric.**
- **NASA contribution:** L-band radar, GPS, telecom, antenna (\$1.16B); **ISRO:** S-band radar, bus, GSLV-F16 (\$90M).

- **Weight:** 2,392 kg
- **Orbit:** Sun-Synchronous Polar Orbit
- **Mission Life:** 5 years.

## Objectives of NISAR Mission



**Measure the woody biomass** and its changes



Track **changes in the extent of active crops**



Understand the **changes in wetlands' extent**



**Map Greenland's & Antarctica's ice sheets**, dynamics of sea ice and mountain glaciers



Characterize **land surface deformation** related to seismicity, volcanism, landslides, and subsidence & uplift associated with changes in subsurface aquifers, hydrocarbon reservoirs, etc.

### Technical Features

- **SweepSAR** for high-resolution wide-swath imaging **every 12 days**.
- **Dual-band Synthetic Aperture Radar (L & S- band SAR)**: for vegetation, ice, soil, and canopy monitoring.
- 12-metre **deployable antenna**; **open-data policy for global access**.

### About SAR

- SAR is an active remote sensing technique sending pulses and recording their reflection from Earth.
- Unlike optical imagery (passive), SAR captures interactions with terrain, vegetation, ice, and soil moisture.

### Why Synthetic?

- Higher **spatial resolution** requires impractically long antennas.
- SAR **combines multiple acquisitions** from a shorter antenna to simulate a larger one, **achieving high-resolution** imaging efficiently.

### Conclusion

Enhances disaster preparedness, climate resilience, sustainable development, and Earth observation capabilities for India.

## 7.4. AXIOM-4 MISSION

### Why in the News?

- The **Axiom-4 Mission** successfully returned on July 15, 2025.

### About Axiom-4 (Ax-4) Mission

- **4<sup>th</sup> private astronaut mission**, to the **ISS by Axiom Space** in collaboration with **NASA** and **SpaceX**.
- **14-day mission** launched aboard a **SpaceX Dragon Spacecraft** via **Falcon 9 launch** from NASA's Kennedy Space Centre.
  - ➔ **Falcon 9** reusable launch vehicle and **Dragon spacecraft** is reusable crew module for carrying astronauts into space.
- **Astronauts:** Shubhanshu Shukla (India), Peggy Whitson (USA), Sławosz Uznański (Poland), and Tibor Kapu (Hungary).
  - ➔ Shubhshu is the first Indian on ISS and second Indian in space after Rakesh Sharma (1984.)
- **Aim:** To "realize the return" to human spaceflight for **India, Poland, and Hungary**.
- **ISRO led studies** include, Crop growth in space, Cyanobacteria for life support, Space Microalgae as food/ fuel, Myogenesis and muscle loss, Tardigrades resilience and Cognitive impact of screen use; STEM outreach.

### Significance for India

- Supports Gaganyaan Mission (Shukla is one of four selected astronauts)
- Boosts global partnerships and space diplomacy

- Stimulates India's private space sector
- Inspires youth in STEM fields

### Challenges

- **Technological:** Life support, radiation shielding, re-entry protection, and launch safety
- **Logistical:** High costs and rigorous astronaut training requirements

### About International Space Station (ISS)

- A **habitable satellite** in Low Earth Orbit (370–460 km), **orbiting Earth every 90 minutes** at ~28,000 km/h.
- **Partners:** NASA (USA), Roscosmos (Russia), ESA (Europe), JAXA (Japan), and CSA (Canada).
- **Largest space laboratory**, covering 90% of inhabited Earth.
- First launched in 1998, operational till at least 2030.

### About Gaganyaan Programme

- India's **first human spaceflight mission**, approved in 2018.
- **Aim:** Demonstration of **human spaceflight** capability by launching a crew.
- **Components:** LVM-3 launch vehicle, Orbital Module (Crew + Service Module).
- Extended to include **Bharatiya Antariksh Station**.

### About Bharatiya Antariksh Station (BAS)

- **Planned Indian space station** (400–450 km altitude) with five modules.
- Base module launch in 2028; full station operational by 2035.

### Conclusion

**Accelerates technological learning** ahead of its proposed Gaganyaan mission and also build **critical human capital and infrastructure** for future long-duration spaceflight.

## 7.5. BLACK HOLE MERGER

### Why in the News?

An international network of gravitational wave observatories detected **merger of two massive black holes**.

### More in the News

- **Black Holes:** 140 and 100 solar masses merged, **the largest observed merger**.
- **Event Name:** GW231123, occurred billions of years ago.

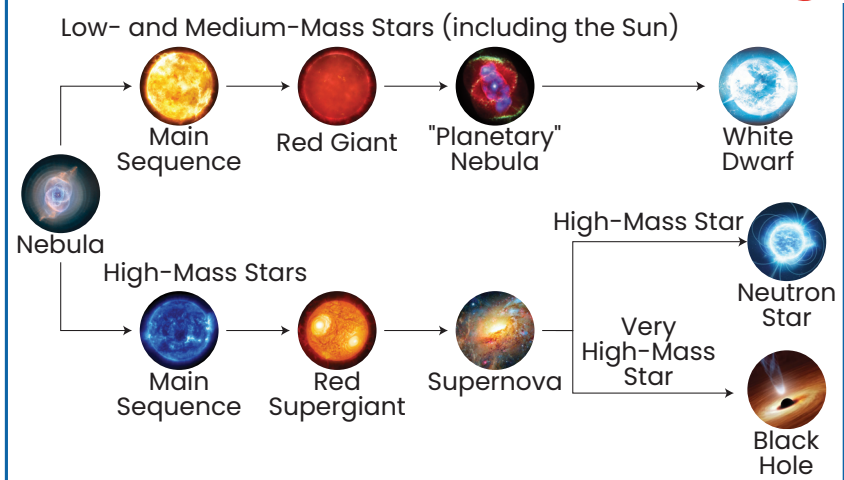
### Significance of the event

- **Refine Astrophysical and Cosmological:** Helps update models of black hole formation, stellar evolution, gravity, cosmology, and particle physics.
- **Challenging black hole formation: Largest and fastest-spinning black holes detected**, suggesting complex formation history.
- **Hierarchical Mergers Insight:** Massive black holes like GW231123 may form via successive mergers, **possibly leading to supermassive black holes in galaxies**.
- **Gravitational Waves as a Tool:** Enable study of dark matter and dark energy, invisible to light; **predicted by Einstein in 1915 as ripples in space-time**.

### Gravitational Wave Detection Network

- **LIGO (USA):** Largest observatory, two detectors at Hanford & Livingston.
  - ➔ LIGO-India planned in Hingoli, Maharashtra with DAE, DST and U.S. NSF collaboration.
- **Virgo (Italy):** Hosted by European Gravitational Observatory (Italy and France).
- **KAGRA, Japan:** Located inside the Kamioka mine.

### Stellar Evolution



## Black Holes

- **Black Hole:** A region in space with gravity so strong that even light cannot escape, formed by matter compressed into a tiny space.
- **Detection:** Invisible to telescopes; studied via effects on nearby stars and gas.
- **Formation:** Most form from massive stars' cores collapsing after supernovae; smaller cores may become neutron stars.
- **Types:** Stellar, super massive, intermediate and primordial.

# 7.6. NEWS IN SHORTS

## 7.6.1. ISRO inaugurates HOPE Analog Mission in Tso Kar Valley, Ladakh

**Himalayan Outpost for Planetary Exploration (HOPE)** is a specially designed **Habitat Module** for crew living and **Utility Module** for operations and support systems.

### About HOPE Mission

- **Aim:** To simulate space-like conditions on Earth to aid research for future interplanetary missions.
- **Led by:** ISRO's Human Space Flight Centre (HSFC)
- **Objectives:** Simulates Moon/Mars conditions; tests human survival, health, and equipment.
- **Studies:** Epigenetics, genomics, physiology, psychology, etc.
- **Location:** Tso Kar Valley for Mars-like UV, low pressure, cold, saline permafrost.
- **Global Context:** Part of analog missions like US Mars Desert, Canada Flashline, Russia BIOS-3.

## About Indian Human Spaceflight Programme, Gaganyaan

- **Objective:** To demonstration human spaceflight capability.
- **Launch Vehicle:** LVM3 rocket
- **Major milestones planned:** Air Drop Tests, Test Vehicle, Pad Abort Tests, Unmanned Flights, and Manned Flight.

## 7.6.2. ISRO's heaviest rocket Lunar Module Launch Vehicle (LMLV) to be ready by 2035

### Key Features of LMLV

- **Design:** Enhanced NGLV, 40-storey building.
- **Purpose:** Lunar missions, including India's first human mission by 2040.
- **3 Stages:** Liquid propellant (first two stages) and a cryogenic propellant (third stage).

## ISRO's Key Launch Vehicles and Capabilities

- **PSLV:** Workhorse for Sun-synchronous, LEO, GTO (e.g., Chandrayaan-1, MOM).
- **GSLV:** 4th-gen, 2-ton GTO for communication satellites.
- **LVM 3:** Heavy-lift, 4-ton GTO or 10-ton LEO (Chandrayaan-2/3), for Bharatiya Antariksh Station.
- **SSLV:** 3-stage, all-solid, for 10-500 kg Mini/Micro/Nano satellites.

## 7.6.3. Science And Technology (S&T) Clusters Initiatives

S&T Clusters Annual Report 2024-2025" highlighted various initiatives including [Kalaanubhav.in](https://www.kalaanubhav.in).

### About the S&T Clusters initiative

- **Genesis: 2020** based on the recommendations **PM-STIAC**.
- **Aims:** To bring together stakeholders to deliver demand-driven solutions through innovative ideas.
- **Working Model:**
  - ➔ Operates: **Consortium-based approach**.
  - ➔ Focuses: **Science and tech-based regional problem-solving**.
- **Nodal Implementing Agency:** Office of the Principal Scientific Adviser (PSA) works under the Cabinet Secretary.

## 7.6.4. Critical And Emerging Technologies Index

**Index** launched to assess how 25 countries perform across five technology sectors: AI, biotechnology, semiconductors, space, and quantum.

- **Published by** the Harvard Kennedy School.
- **Identifies six criteria:** geopolitical significance, systemic leverage, GDP contribution, etc.

### Key Findings

- India lags behind U.S., China, and Europe, across most technology sectors.

- India trails in critical tech, particularly semiconductor tech.

### 7.6.5. Quantum Entanglement-Based Communication Achieved

DRDO & IIT Delhi achieved quantum entanglement based free space communication.

- Free-space quantum secure communication demonstrated **via a free-space optical link**.
- **ISRO** demonstrated in **2021**.




#### About the experiment

- Part of 'Design and development of photonic technologies for free space Quantum Key Distribution (QKD)' of DRDO.
- Exhibited very low Quantum Bit Error Rate (QBER) of less than 7%.
- **QBER** is **error** between information sent and received and an indicator of **probability of eavesdropping**.
- **Purpose:** Real-time applications in quantum cybersecurity, long-distance QKD, and the future quantum internet.

#### What is QKD?

- **Communication Technology:** Based on quantum mechanics, that is, quantum entanglement and cryptography.
  - ➔ Quantum mechanics explains how **extremely small objects simultaneously** characteristics of both particles and waves have (a disturbance or variation that transfers energy).
    - ◊ Physicists call this the "wave-particle duality."
- **Key Principles:**
  - ➔ **Quantum entanglement:** Particles of same origin, which were once connected, **always stay connected**, even when **separated by vast distances**.
  - ➔ **Quantum cryptography:** encryption to secure and transmit data in a way that **cannot be hacked**.

#### Benefits of Entanglement-Based QKD

-  **Functionality:** Ensures secure key sharing even with compromised devices.
-  **Eavesdropping Detection:** Interception disturbs quantum states, revealing intrusion.
-  **Free-space QKD:** Works without costly fibre optics—suitable for tough terrain and dense cities.





### 7.6.6. Fiber Optic Drones

Recently used in the **Russia-Ukraine conflict** due to their **resistance to electronic warfare (EW)**.

#### About Fiber Optic Drones

- These drones are tethered to the operator using **long fiber optic cables (up to 20 km)** instead of radio links.
  - ➔ Made up of **collection of glass tubes** spun as thin as hairs.
  - ➔ They can support **faster speeds, longer distances, and simultaneous communications**.
  - ➔ Unlike wired cable, fiber **only supports a single communication on a single frequency** at one time.
- No radio link: They cannot be jammed or intercepted by EW systems.

#### Other Uses of Fibre Optic Drones

-  **Live Broadcasting:** HD, low-latency video for media events
-  **Industrial Inspections:** Data collection in complex sites like power plants
-  **Environmental Monitoring:** Reliable operation in remote or tough terrains
-  **Reliable Data Transfer:** Transmit high-resolution, real-time video, even in dense urban or forested areas

### 7.6.7. Bluetooth Mesh Networking

Twitter Co-Founder shared details of **Bluetooth Messaging App, Bitchat**.

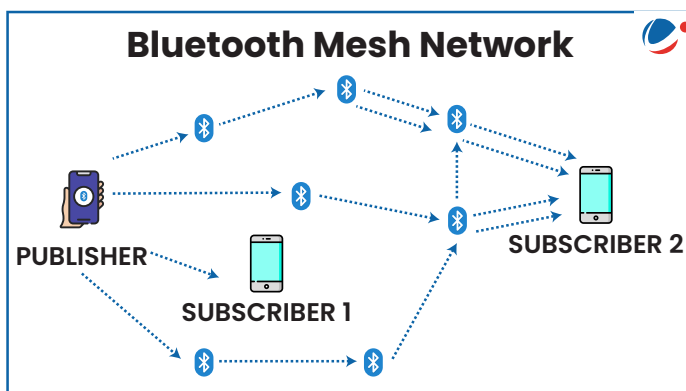
- **Bitchat:** Peer-to-peer messaging app by using **Bluetooth Low Energy Mesh Networking** to **enable communication, functioning without central servers or phone networks**.

#### What is Bluetooth Mesh Networking?

- Relies on **Bluetooth clusters** or **Mesh network**
- **Mesh network** or "multi-hop network", is a networking topology.
  - ➔ **Data can travel from any device** to all others, achieving **many-to-many communication**.
  - ➔ Even if one device fails, the network keeps working.
- **Benefits**
  - **No central database:** messages stored on users' devices
    - ➔ **Prioritise users' privacy.**
  - **No registration required**
  - Low Power Consumption, etc.

**Key Limitations:** high latency, Complex network management, low data transfer rates, etc.





### 7.6.8. DHRUVA (Digital Hub for Reference and Unique Virtual Address)

DoP has released comprehensive document for **DHRUVA**, a national-level **Digital Address Digital Public Infrastructure (DPI)**.

#### About DHRUVA

- Developed by DoP to provide **unique digital address for every home in India** using a **geo-coded framework**.
- **Aim:** Establish **address management** as foundational infrastructure for governance, service delivery, and user experience.
- **Enables** Address-as-a-Service (AaaS).
- **2 Layers:**
  - ➔ **DIGIPIN:** 10- digit alpha-numeric code based on 4x4 m geospatial grids.
  - ➔ **Digital Address Layer:** **Consent-based system**, user-friendly address labels.
- **Key Features:** Privacy; Openness; Scalability; Transparency, Innovation, etc.

### 7.6.9. AI Alliance Network (AIANET)

**Digital India Foundation** (founding member of AIANET) has objected to membership application of Pakistan's AI Technology Centre (AITeC).

- DIF is not-for-profit think-tank aiming to foster digital inclusion, and use of Internet and related technologies for developmental process.

#### About AIANET

- **Informal voluntary network and community** for its Members to exchange views, share information and expertise.
- **Aim:** Accelerate development of AI technologies to enhance sustainable long-term prosperity and development
- **Members:** 17 including India.
- **Administered by:** AI Alliance Russia

### 7.6.10. EU AI Code of Practice on General-Purpose (GPAI)

26 tech giants (**Amazon, Google, Microsoft, and IBM**) signed EU's voluntary AI Code of Practice on GPAI.

- **Benefits:** Offers legal certainty, eases transition to EU AI Act (effective in 2 years).
- **Chapters:** Transparency, copyright, safety/security.

#### About EU AI Act

- **Nature:** World's first comprehensive AI law with a risk-based approach.
- **Impact:** Ensures accountability for AI providers, affects generative AI businesses and third-party risks.
- **Global Standard:** Like GDPR, aims for positive AI impact worldwide.
- **Compliance:** Penalties up to 7% of global turnover.
- **Key concerns**
  - ➔ Legal uncertainties for developers, exceeds AI Act scope.
  - ➔ Regulatory complexity may hinder Europe's AI competitiveness.

### 7.6.11. WHO Launches "3 By 35" Initiative

**Initiative** aims to raise prices of tobacco, alcohol, and sugary drinks by  $\geq 50\%$  via health taxes by 2035, potentially generating US\$1 trillion globally.

- **Collaborative Alliance:** Involves development partners, civil society, academia, and national governments.

#### What is Health Tax?

- **Levied on products** harming **public health impact** e.g. Tobacco, Alcohol etc.
- WHO recommends it to combat obesity and NCDs.

#### Need for Health Tax

- **Health Impact:** NCDs cause  $>75\%$  of global deaths.
- **Economic Impact:** Tobacco alone cost US\$1.4 trillion in 2012.
- **Revenue:** 50% tax could yield US\$3.7 trillion in five years.
- **Equity:** Protects low-income populations disproportionately affected.

#### India's Measures

- 28% GST + 12% cess on **aerated drinks**
- **12% GST on High-fat sugar Salt (HFSS)** foods
- **FSSAI limits Trans fatty acids (TFA)** to 2%.

#### Successful Global Case Studies

  
**Colombia (2016):** Higher cigarette tax led to 34% drop in consumption

  
**Saudi Arabia:** 50% Sugar-Sweetened Beverages (SSB) tax cut consumption by 19% in one year

### 7.6.12. WHO/UNICEF Data On Immunization

**WHO/UNICEF 2024 Estimates** show significant progress on Immunization in India.

#### Key Findings

- **Global:** 89% of infants received ≥1 dose of DTP vaccine in 2024.
- **India:** Zero-dose children reduced by 43% (1.6 million → 0.9 million).

#### Universal Immunization Programme (UIP) India

- **Launched:** 1978 as Expanded Programme on Immunization, Rebranded as UIP in 1985.
- **Coverage:** Against 12 diseases:
  - ➔ **Nationwide (9):** Diphtheria, Pertussis, Tetanus, Polio, Measles, Rubella, Childhood Tuberculosis, Hepatitis B and Meningitis & Pneumonia.
  - ➔ **Region-specific (3):** Rotavirus diarrhoea, Pneumococcal Pneumonia, and Japanese Encephalitis.
- **Full Immunization:** Child receives all scheduled vaccines within first year.
- **Achievements:** Polio-Free India (2014), Neonatal tetanus elimination (2015).
- **Key Initiatives:** Intensified Mission Indradhanush 5.0, U-WIN Portal, focus on Measles & Rubella coverage.

### 7.6.13. India's First Gene-Edited Sheep Produced

India's first gene-edited sheep developed by Kashmir University and ICAR using **CRISPR-Cas9 technology**.

#### About CRISPR-Cas9

- Works on **cut-and-paste mechanism for DNA Strands**.
- **Nobel Prize for Chemistry (2020)**.

#### About the research

- Edited **Myostatin gene** in a lamb, boosting muscle growth by **30%**.
- **No foreign DNA** added, unlike **transgenic methods**, making it safer and more acceptable.
- Builds on earlier gene-edited buffalo embryo by NDRI.

#### Ethical Concerns

- Editing traits may lead to **the creation of designer babies**, potentially creating a divide.
- Risks: **Eugenics, Off-target effects, mosaicism and animal welfare**.

UNESCO's **International Bioethics Committee** monitors global implications.

### 7.6.14. Phenome India National Biobank

National Biobank inaugurated at CSIR-Institute of Genomics and Integrative Biology (IGIB).

- Advancing India's **longitudinal health database**
- Enhances **Precision medicine** and **biomedical research**.

#### About National Biobank

- **Launched under:** Phenome India Project
  - ➔ Based on **UK Biobank model**, but customized for Indian diversity.
- **Purpose:** Supports early diagnosis, targeted therapeutic, and research on complex diseases using **AI-driven diagnostics** and **gene-guided therapies**.
- **Coverage:** Collect genomic, lifestyle, and clinical data from **10,000 individuals**.

#### Phenome India Project

- Officially called **Phenome India-CSIR Health Cohort Knowledgebase (PI-CheCK)**.
- **Launched by:** CSIR in 2023.
- **Objective:** To track long term health trajectories.

#### Phenome

- It is entire set of **phenotypes** in a cell, tissue, organ, organism or species.
- **Phenotype** refers to the **observable physical characteristics** of an **organism**.
  - ➔ Include organism's **appearance, development, and behavior**.
  - ➔ It is determined by **genotype** (set of genes the organism carries) and **environmental influences** upon these genes.

### 7.6.15. HIV Prevention Drug Approved

US FDA approves new HIV prevention drug Lenacapavir

- Approval supports **WHO prequalification**, accelerating national regulatory approvals.
- WHO's Prequalification of Medicines Programme ensures **quality, safety and efficacy** of medicines for procurement agencies.

#### About Lenacapavir





- An antiretroviral drug used as **Pre-Exposure Prophylaxis (PrEP)** for HIV prevention in at-risk, HIV-negative individuals.
- WHO currently recommends **oral PrEP, dapivirine vaginal ring, and injectable cabotegravir (CAB-LA)**.

#### About HIV

- HIV **attacks the immune system** by destroying CD4 cells.
- **Transmitted** via blood, semen, vaginal fluids, breast milk, or mother-to-child.

- **Treated** with antiretroviral therapy (ART); untreated HIV can progress to AIDS.
- Over **2.5 million people in India with HIV.**

### India's Initiatives

-  **National AIDS Control Programme Phase-V (2021–26)** aims for 80% reduction in new infections.
-  **HIV and AIDS (Prevention and Control) Act 2017** prohibits discrimination against HIV-positive individuals.
-  Committed to ending HIV/AIDS as a **public health threat** by 2030.
-  Youth-focused initiatives like **Red Ribbon Clubs** in educational institutions.

### 7.6.16. Weight Loss Drug

Danish pharma company Novo Nordisk **launched its weight loss drug Wegovy in India.**

- Drug **semaglutide**, marketed under brand name Wegovy, will be available in the form of injections to be administered once a week.
  - ➔ Semaglutide, works as an appetite suppressant by imitating a hormone called **glucagon-like peptide-1 (GLP-1)**.
    - ◊ GLP-1 is an intestinal hormone released after eating, and usually makes people feel fuller.

### 7.6.17. SHRESTH Initiative

Ministry launched **State Health Regulatory Excellence Index (SHRESTH)** to benchmark and strengthens state drug regulatory systems.

#### About SHRESTH

- **Proposed by:** Central Drugs Standard Control Organization (CDSCO).
- **Aim:** Enhance state drug regulatory performance for consistent safety and quality.
- **Indices:** Based on HR, Infrastructure, Licensing, Surveillance, Responsiveness.

### 7.6.18. Brain-Computer Interface (BCI)

Stanford scientists developed a password-protected BCI to ensure privacy by requiring mental passwords before decoding thoughts.

#### What is a BCI?

- **Definition:** Enables direct brain-to-device communication by translating neural signals into commands, bypassing muscular control.
- **Process:** Acquires brain activity (implants/wearables), processes signals, sends commands, with feedback for adaptation.

### Brain-Computer Interface

Motor Control	BCI Control
<b>Plan:</b> Decide to turn on the lamp.	<b>Plan:</b> Decide to turn on the lamp.
<b>Execute:</b> Reach out with your arm & use finger to press lamp's on/off switch.	<b>Execute:</b> Computer analyzes brain activity, identifying your wish to turn lamp on; sends signal to lamp, instructing it to turn on.
<b>Output:</b> Lamp responds.	<b>Output:</b> Lamp responds to signal from computer.

- **Key Applications of BCIs:** Medical, Mental Wellness, Gaming/Industry, Cognitive, etc.

#### Key Concerns Related to BCIs:

- **Cybersecurity:** Risks like brain tapping, mind control, etc.
- **Privacy:** Safeguarding neural data.
- **Cognitive Liberty:** Threat to mental autonomy.
- **Health:** Unknown long-term effects.
- **Regulatory/ Cost:** Lack of standardized, high costs.

#### Way Forward

Robust Regulations, enhanced security and establishing neurorights to safeguard mental privacy, etc.

### 7.6.19. Maharashtra inks deal with IIT Madras startup (TuTr Hyperloop Pvt Ltd) to build hyperloop

Linear Induction Motor (LIM) system will connect **Jawaharlal Nehru Port Trust (Navi Mumbai) to Vadhavan Port.**

#### About Hyperloop Mobility System

- **Origin:** Proposed by Elon Musk (SpaceX, 2013), open-sourced ultra-high-speed rail (UHSR).
- **Technology:** Magnetic levitation (maglev) pods in low-pressure tubes.
- **Functioning:** Sealed tubes with vacuums, LIM for 1,200 km/h, components include steel tubes (100Pa), capsules, compressor, air bearings.
- **Advantages:** Speeds (Mumbai-Pune in 25 mins), energy efficiency, noise reduction, logistics boost.
- **Issues:** Conceptual stage, high costs (\$25-27 million/mile), safety (fire, evacuation), vacuum maintenance, straight-line infrastructure needs.

### 7.6.20. Annual Fastag Passes

Ministry launched FASTag Annual Pass for ₹3,000 for one year or 200 toll plaza crossings.

### About FASTAG

- **Technology:** RFID-based toll payment from accounts while moving.
- **RFID:** Uses tags/readers and radio waves for short-range communication
- **Management:** Overseen by NPCI and NHAI.

### 7.6.21. Tianwen-2 Probe

Launched by China to return samples from an asteroid near Mars.

- **Tianwen-1 probe (2021)** landed on mars' surface.

- **Tianwen-3**, scheduled for (launch) around 2028, aims to collect and bring samples back to Earth from Mars while **Tianwen-4** aims to explore **Jupiter** around 2030.

### About Tianwen-2 probe

- **Launch Vehicle:** Long March 3-B rocket.
- **Aim:** Collect samples from the **asteroid 2016HO3** and explore the **main-belt comet 311P**, which lies even further from the Earth than Mars.

# FAST TRACK COURSE 2026 GENERAL STUDIES PRELIMS



### PURPOSE OF THIS COURSE

The GS Prelims Course is designed to help aspirants prepare for & increase their score in General Studies Paper I. It will not only include discussion of the entire GS Paper I Prelims syllabus but also that of previous years' UPSC papers along with practice & discussion of Vision IAS classroom tests. Our goal is that the aspirants become better test takers and can see a visible improvement in their Prelims score on completion of the course.



### INCLUDES



Access to recorded live classes at your personal student platform.



Comprehensive, relevant & updated Soft Copy of the study material for prelims syllabus.



Access to PT 365 classes



Sectional mini test and Comprehensive Current Affairs.

**ENGLISH MEDIUM**  
**13 OCT, 2 PM**

**हिन्दी माध्यम**  
**7 OCT, 5 PM**



## 7.7. TEST YOUR LEARNING

### 1. Which of the following statements about the Axiom-4 Mission is correct?

- It was launched by the Indian Space Research Organisation (ISRO).
- The mission included astronauts from India, Russia, Poland, and Hungary.
- The mission was launched aboard a SpaceX Dragon Spacecraft using a Falcon 9 launch vehicle.
- The primary objective was to deploy a new module for the International Space Station.

### 2. With reference to the recently detected Black Hole Merger GW231123, consider the following statements:

- It involved the merger of two black holes, one 140 times and the other 100 times more massive than the Sun.
- The detection was made by the LVK network of observatories, which includes LIGO in the United States and KAGRA in Japan.
- The event challenges the current understanding of black hole formation due to the extremely massive and fast-spinning nature of the black holes involved.

Which of the statements given above is/are correct?

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

### 3. Consider the following statements about India's first commercial Earth Observation (EO) satellite constellation.

- It is being developed entirely by ISRO with government funding.
- It will consist of 12 satellites equipped with SAR, multispectral, and hyperspectral sensors.

Which of the above statements is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

### 4. With reference to the Science and Technology (S&T) Clusters Initiative, consider the following statements:

- It was launched in 2020 on the recommendation of the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC).
- The initiative works through a consortium-based approach focusing on regional problem-solving using science and technology.
- The nodal implementing agency for the initiative is the Department of Science and Technology (DST).
- The "Kalaanubhav.in" platform, an AR/VR-enabled artisan marketplace, was developed under this initiative.

Which of the statements given above is/are correct?

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

### 5. With reference to Quantum Key Distribution (QKD) in India, consider the following statements:

- The Defence Research and Development Organisation (DRDO) and IIT Delhi recently achieved free-space quantum entanglement-based secure communication over a distance of ~1 km.
- A Quantum Bit Error Rate (QBER) higher than 15% generally indicates a secure system free from eavesdropping.
- ISRO demonstrated India's first free-space QKD experiment in 2021 over a distance of about 300 metres.
- QKD uses wave-particle duality and entanglement principles of quantum mechanics to secure data transmission.

Which of the statements given above is/are correct?

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



## Mains Question

### Q1. (150 words)

With the recent development of India's first gene-edited sheep using CRISPR-Cas9 technology, the debate around gene editing in animals has intensified. Discuss the potential benefits of this technology for India's agricultural and livestock sectors, while also addressing the major ethical concerns involved.

### Q2. (250 words)

Discuss the multifaceted significance of the NISAR (NASA-ISRO Synthetic Aperture Radar) satellite mission, highlighting its key technological features and potential applications in Earth observation for sustainable development and disaster management.



# PERSONALITY

## DEVELOPMENT PROGRAMME

CIVIL SERVICES EXAMINATION - 2025

**11 NOVEMBER**



Scan QR CODE to watch How to Prepare for UPSC Personality Test

## FEATURES OF THE PERSONALITY DEVELOPMENT PROGRAM



**Pre-DAF Session:** For a nuanced understanding of DAF entries and how to fill it mindfully to reflect desired personality traits.



**Mock Interview Sessions:** With Senior Faculty, Ex-Bureaucrats and Educationists for enhanced interview readiness and instilling confidence.



**Interaction with toppers and serving bureaucrats:** Interactive Session for facilitating query resolution, interactive learning, and motivation from the experience of Topper and serving bureaucrats.



**DAF Analysis Session:** Thorough DAF analysis and discussion with Senior Experts and Faculty Members on expected questions and their answers.



**Personalized Mentorship and Guidance:** Holistic interview preparation management and performance maximization with a dedicated Senior Mentor.



**Performance Evaluation and Feedback:** Identification of strengths and growth areas coupled with positive recommendations for further enrichment and improvement



**Elocution Session:** For the development and refinement of communication skills and honing desirable personality traits through guided discussions and peer learning.



**Current Affairs Classes:** To develop a comprehensive and analytical view of important issues of current affairs.



**Recordings of Mock Interviews:** Video of Interview sessions for Self-evaluation

For queries regarding DAF analysis and Mock interview contact at

7042413505, 9354559299  
interview@visionias.in

Scan QR CODE to know more and Register



# CULTURE



## Table of Content

8.1. GOSWAMI TULSIDAS . . . . .	142	8.6. MARATHA MILITARY LANDSCAPE . . . . .	145
8.2. CHOLA GANGAM LAKE . . . . .	142	8.7. GALLANTRY AWARDS . . . . .	147
8.3. INTERNATIONAL CHESS FEDERATION (FIDE) CHESS CHAMPIONSHIP . . . . .	144	8.8. INS KAUNDINYA AND TANKAI METHOD . . . . .	147
8.4. COMMONWEALTH GAMES . . . . .	144	8.9. NEWS IN SHORTS . . . . .	148
8.5. 100 YEARS OF KAKORI TRAIN ACTION . . . . .	145	8.10. TEST YOUR LEARNING . . . . .	151

## 8.1. GOSWAMI TULSIDAS

### Why in the News?

500<sup>th</sup> birth anniversary

### About Goswami Tulsidas

- **Birth:** Rajapur Village, Banda, Uttar Pradesh.
- **Real Name:** Rambola Dubey
- **Father:** Aatmaram.
- **Mother:** Hulasi.
- **Teacher:** Shri Narharidas Ji

### Key Contributions:

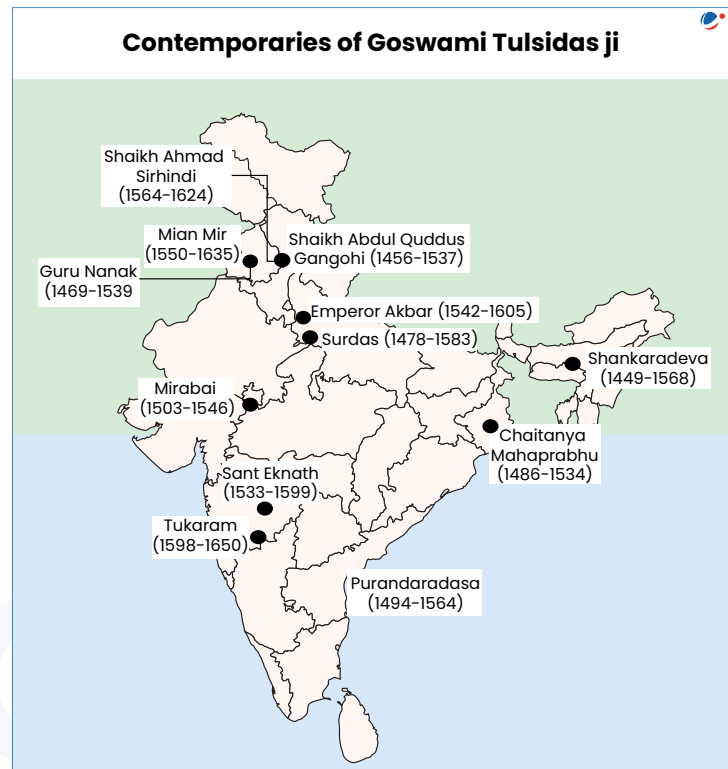
- **Literary:** Wrote Ramcharitmanas (Awadhi, **UNESCO-listed**), Vinay Patrika and Kavitavali (Braj), etc.
- **Bhakti Movement:** Vaishnava saint of Saguna Bhakti, from Ramanandi Sampradaya; **harmonized Nirguna and Saguna devotion.**
- **Dialects:** Promoted **Awadhi and Braj languages.**
- **Temple:** Sankatmochan Temple, Varanasi.
- **Ramlila:** Based on Ramcharitmanas started by disciples post-death (e.g., Megha Bhagat, 1625).

### Teachings

- **Navavidha Bhakti:** Nine devotion principles (e.g., saintly company, Guru Service).
- **Social:** Advocated **equality** (devotion over caste) and **Shaivism-Vaishnavism unity.**
- **Adwaita:** Embraced formless Rama in Monoism.
- **Taxation:** Proposed a cyclical, prosperity-driven tax system.

### Conclusion

Tulsidas's devotion, equality, and unity messages inspire moral and social upliftment.



## 8.2. CHOLA GANGAM LAKE

### Why in the News?

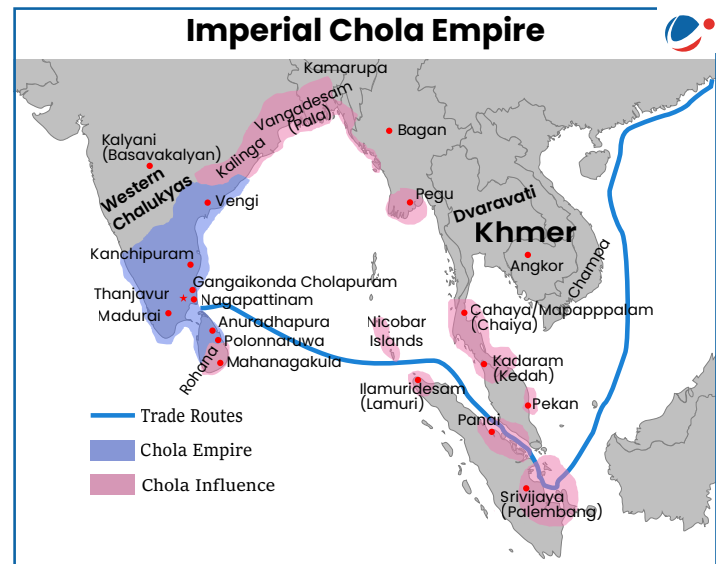
Tamil Nadu government announced to develop **Chola Gangam lake**.

### More on the News

- Announced during **Aadi Thiruvathirai Festival**, marking Rajendra Chola I's birth anniversary.
  - ➔ **Festival** commemorates **1,000 years of Rajendra Chola's Southeast Asia maritime expedition and Gangaikonda Cholapuram temple construction.**
  - ➔ Honours **63 Nayanmars**, Chola-supported saint-poets and **Shaiva Siddhanta philosophy.**

### About Chola Gangam lake

- Chola Gangam Lake (**Ponneri Lake**): **Largest ancient man-made lake** in India.



- **Location:** Near **Gangaikonda Cholapuram, Ariyalur District**, Tamil Nadu.
- **Construction:** By **Rajendra Chola I (1014 to 1044 CE)**, son of Rajaraja I.
  - ➔ Established **Gangaikondacholapuram** as capital to celebrate his Gangetic expedition mentioned in **Tiruvalangadu Copper Plates**.
  - ➔ Earning title **Gangaikonda Cholan**.
- **Chola rule**
  - ➔ **Early Cholas:** Sangam period; Karikala Chola founded Puhar.
  - ➔ **Imperial Cholas:** Rose to prominence from 9th century CE.
  - ➔ **History:** Holy water from Ganges poured into lake; named Chōlagaigam; later called Poṇṇēri in Vijayanagara period.
  - ➔ **Water Source:** Canal from Kollidam River (Kaveri distributary).
  - ➔ **Structure:** Elliptical bunds strengthened with laterite stones.
  - ➔ **Purpose:** Drinking water and irrigation.

### About Imperial Chola Dynasty (9<sup>th</sup> Century – 13<sup>th</sup> Century)

- **Beginnings:** Started as minor chiefs in **Uraiyr** under Pallava, rose to power in **9<sup>th</sup> century** under **Vijayalaya Chola**.
- **Key Inscriptions:** **Uttaramerur inscriptions** detail Chola administrative system and elections.
- **Administration:** kingdom divided into **mandalams, valanadu, nadus, kurrums** and **kottams**.
- **Local Self Governance:** Village assembly known (**ur/ sabha**) with members elected by **kudavolai system**.
- **Tax System:** **Vetti** (forced labour), and **Kadamai** (land revenue).
- **Maritime:**
  - ➔ **Powerful Navy:** Under Rajaraja Chola and Rajendra Chola, notable **expedition against Srivijaya (1025)**.
  - ➔ **Diplomatic/ trade relations** with Sri Lanka, China, Maldives, and Southeast Asia.
  - ➔ **Famous Ports:** Mahabalipuram, Kavirippumpattinam (Poompuhar), and Korkai.
- **Cultural Marvels:**
  - ➔ **UNESCO World Heritage Temples:** Gangaikonda Cholapuram, Airavatesvara, and Brihadeeswara.
  - ➔ Renowned for bronze sculptures, especially Nataraja.

### Important Chola Temples

	About Brihadeeswara Temple	About Gangaikonda Cholapuram Temple	About Airavatesvara Temple
			
<b>Location</b>	Thanjavur	Gangaikonda Cholapuram	<b>Darasuram</b> in the Thanjavur district
<b>Architecture</b>	Dravidian	Dravidian	Dravidian with main stonework resembles a chariot.
<b>Chief Deity</b>	Lord Shiva	Lord Shiva	Lord Shiva
<b>Time Period</b>	1010 A.D.	1035 A.D.	12 <sup>th</sup> century.
<b>Built by</b>	Rajaraja Chola I	Rajendra I	Rajaraja Chola II
<b>Fact</b>	Also known as Peruvudaiyar Kovil.	55-meter vimana. Also known as <b>Brihadeeswara temple</b> .	Named after 'Airavat', the majestic white elephant of Lord Indra.
<b>UNESCO World Heritage Site</b>	Yes	Yes	Yes

<b>Special Feature</b>	Narrate tale of rise and decline of city's fortunes.	Stone sculptures: Nataraja, Dakshinamurthy, Harahari, Lingodbhava, Vishnu, Brahma, Mahishasuramardhini, Gnana Saraswathi.	Stories from ancient Indian Puranas. Represent seven musical notes.
------------------------	--	---	--

### Conclusion

Chola Gangam Lake and temples reflect Cholas' engineering skill, maritime power, cultural patronage, and administrative vision, blending utility, art, and spirituality, leaving lasting legacy in architecture, water management, maritime expeditions, and Shaiva traditions that inspires Indian cultural pride.

## 8.3. INTERNATIONAL CHESS FEDERATION (FIDE) CHESS CHAMPIONSHIP

### Why in the News?

**Divya Deshmukh** became **first Indian woman to win FIDE Women's World Cup** title by defeating fellow Indian Koneru Humpy in Batumi, Georgia.

### More on the News

- **Fourth Indian woman to become a Grandmaster** after Koneru Humpy, Dronavalli Harika, and R Vaishali.
- Qualifies for **2026 Candidates Tournament**.

### Other recent achievements in Chess

- **GM Gukesh Dommaraju** became the youngest (2024) undisputed World Chess Champion, defeating Ding Liren.
- Indian **Men's and Women's Chess Teams** made (2024) won **gold** at **45th FIDE Chess Olympiad**, Budapest, Hungary.
- **GM Praggnanandhaa Rameshbabu** became the world's youngest (2023) chess player to reach World Cup final, 2<sup>nd</sup> Indian after **Viswanathan Anand**.
- **Abhimanyu Mishra (USA)** became the youngest International Master (2019, age 10) and later earned GM norms (2021).

### About FIDE World Championship Cycle

- FIDE World Cup selects three players for **Women's Candidates Tournament**.
- **Candidates Tournament** is the final event in the World Championship cycle before the World Championship match.
  - ➡ **Candidates Tournament:** 8-player double round-robin; winner challenges reigning World Champion.
  - ➡ **Qualification** include: runner-up of last World Championship, top 3 World Cup finishers, top 2 Grand Swiss, FIDE Circuit winner, highest FIDE rating holder.
- **World Chess Championship:** Played between reigning Champion and Candidates winner.

### About International Chess Federation (FIDE)

- Governing body for international chess competitions.
- **Genesis:** 1924 (Paris), IOC recognition in 1999.
- **Headquarters:** Lausanne, Switzerland.
- **Members:** 201 countries.

## 8.4. COMMONWEALTH GAMES

### Why in the News?

Union cabinet approved India's bid to host Commonwealth Games 2030 at Ahmedabad.

### About Commonwealth Games (CWG)

- **Event:** Multi-sport event every four years among Commonwealth nations.
- **History:** First in 1930 (Hamilton, Canada), 19th in 2010 (Delhi).



- **Earlier names:** British Empire Games (1930–1950), British and Commonwealth Games (1954–1964), British Commonwealth Games (1970–1974).

### About Commonwealth

- **Genesis:** 1926 agreement established **equal member status** within British Empire, owing allegiance to the Crown but not ruled by UK.
- **Members:** 56 countries (**including India**), Gabon and Togo joined in 2022.
- **Key organizations:** **Board of Governors** (High Commissioners) and **Commonwealth Secretariat** (London).

## 8.5. 100 YEARS OF KAKORI TRAIN ACTION

### Why in the News?

2025 **centenary year of Kakori Train action.**

### About Kakori Train Action

- **Date:** **August 9, 1925**, at **Kakori** near **Lucknow, Uttar Pradesh**.
- **Action:** HRA revolutionaries seized British railway funds from the 8-down train.
- **Leaders:** **Ram Prasad Bismil, Ashfaqullah Khan, Chandrashekhar Azad, Roshan Singh, etc.**

### Aftermath

- **British Response:** Manhunt led to 40+ arrests; Kakori Conspiracy trial charged 28 HRA members.
- **Sentences:** Bismil, Ashfaqullah, Rajendra Lahiri, and Roshan Singh were sentenced to **death**.

### Impact on India's Independence Movement

- **Inspiration:** New generation of revolutionaries – **Bhagat Singh, etc.**
- **Unity:** Showcased secular collaboration.
- **Awareness:** Trial exposed British harshness, boosting support.
- **Shift:** Promoted direct action alongside non-violence.
- **Legacy:** Embodied revolutionary spirit; led to HSRA in 1928.

### About HRA and HSRA

- **Hindustan Republican Association (HRA)**
  - ➔ **Founded:** 1924
  - ➔ **Principle:** India to be federal Republic
  - ➔ The organization **drafted a constitution (Yellow Paper)** and published manifesto titled **"Revolutionary"** in 1925, criticizing **Mahatma Gandhi's non-violent methods**.
- **Hindustan Socialist Republican Association (HSRA)**
  - ➔ **Founded:** 1928
  - ➔ **Principle:** **Socialism.**

### Conclusion

Kakori Action challenged colonial economics, spurred revolutionary shifts, and inspired HSRA, reinforcing armed resistance.

## 8.6. MARATHA MILITARY LANDSCAPE

### Why in the News?

Maratha Military Landscapes added to UNESCO World Heritage List as 44<sup>th</sup> site.

### About Maratha Military landscape

- **Geographical Spread:** Maharashtra and Tamil Nadu.
- **Strategic Locations:** Coastal forts, hilltop, **Sahyadri ranges, Konkan Coast, Deccan Plateau**, and **Eastern Ghats**.

- **Evolution:** 17<sup>th</sup> – 19<sup>th</sup> century from **Chhatrapati Shivaji Maharaj** to Peshwas, showcasing Maratha **military vision and architectural ingenuity**.

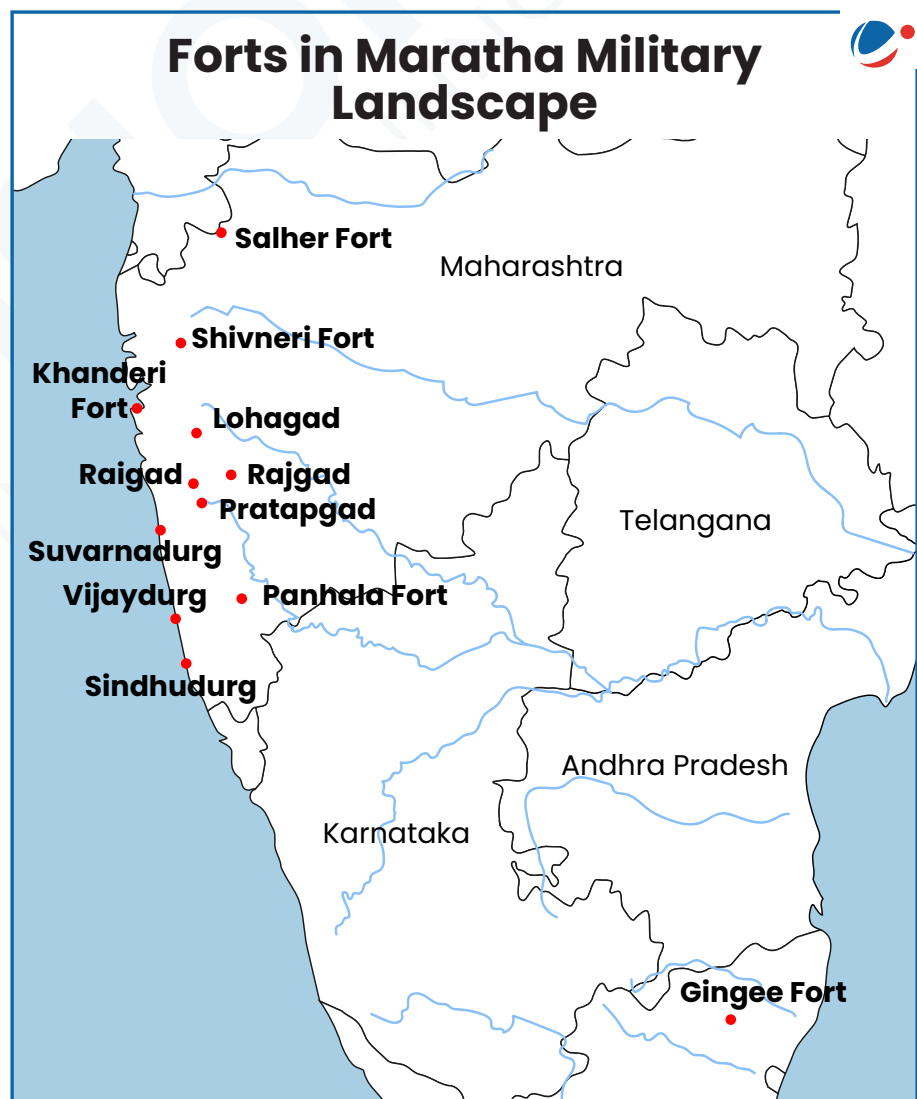
Forts in Maratha Military Landscapes (12)	Key Features
<b>Salher Hill fort</b>	Site of 1672 Marathas – Mughal battle.
<b>Shivneri Hill fort</b>	Chhatrapati Shivaji's birthplace.
<b>Lohgad Hill fort</b>	Near Bhaje buddhist caves.
<b>Raigad Hill fort</b>	Shivaji permanent capital.
<b>Rajgad Hill fort</b>	<b>Base of 'Hindavi Swarajya'</b> ; was retained after <b>Treaty of Purandar in 1665</b> .
<b>Gingee Hill Fort (TN)</b>	Three hilltop citadels, massive walls, cliffs
<b>Pratapgad Hill Forest Fort</b>	Afzal Khan fight site.
<b>Panhala Plateau Hill Fort</b>	Maratha capital under Tarabai.
<b>Sindhudurg Island forts</b>	Arabian Sea islet fort.
<b>Suvarnadurg Island forts</b>	Built by Bijapur ruler.
<b>Khanderi Island forts</b>	Built 1679 CE to monitor Siddhis at Murud–Janjira fort.
<b>Vijay durg Coastal Fort</b>	Captured from Adil Shah, called "Eastern Gibraltar".

### About Maratha Empire

- **Foundation:** Established by **Chhatrapati Shivaji in 1674**; carved an independent kingdom from Deccan states.
- **Capitals:** Raigad Fort, Gingee, Satara, and Pune.
- **Extent:** Peshawar (North) to Thanjavur (South).
- **Administration:** **Ashtapradhan council of eight ministers** – Peshwa, Amatya, Sachiv, Mantri, Senapati, Sumant, Nyayadhyaksh, Panditrao.
- **Revenue Policy**
  - ➔ **Sardeshmukhi:** 10% tax on empire revenues.
  - ➔ **Chauth:** 1/4<sup>th</sup> from neighbouring non-Maratha Empire.
- **Decline:** After defeat in third Battle of Panipat (against Ahmad Shāh Abdali, 1761).

### Conclusion

India demonstrates strong heritage preservation with **44 UNESCO World Heritage Sites** and **62 sites on Tentative List**.



## 8.7. GALLANTRY AWARDS

### Why in the news?

President approved 127 Gallantry awards & 40 Distinguished Service awards.

### About Gallantry Awards

- **Objective:** Recognize bravery, valour, or self-sacrifice in wartime and peacetime.
- **Conferred by:** President.
- **Ministry:** Ministry of Defence seeks recommendations **biannually**.
- **History:**
  - ➔ **Param Vir Chakra, Maha Vir Chakra & Vir Chakra:** 1950 (effective 1947).
  - ➔ **Ashok Chakra series:** Instituted 1952 (Effective 1947).
    - ◊ **Renamed:** As **Ashok Chakra, Kirti Chakra**, and **Shaurya Chakra (1967)**.
- **Benefits:** Monthly allowance, travel concessions, etc.

### Types of Gallantry Awards, Criteria, and Benefits

Category	Name	Features	Eligibility
Wartime	<b>Param Vir Chakra</b>	Highest military decoration	All ranks, civilians under Armed Forces.
	<b>Mahavir Chakra</b>	Second highest	
	<b>Vir Chakra</b>	Third highest	
Peacetime	<b>Ashoka Chakra</b>	Equivalent of Param Vir Chakra	Armed Forces, Police, civilians.
	<b>Kirti Chakra</b>	Equivalent of Maha Vir Chakra	
	<b>Shaurya Chakra</b>	Equivalent of Vir Chakra	

**Other Distinguished Service Awards:** Param Vishisht Seva Medal, Ati Vishisht Seva Medal, Vishisht Seva Medal, etc.

## 8.8. INS KAUNDINYA AND TANKAI METHOD

### Why in the News?

The Indian Navy formally inducted and named the **Ancient Stitched ship** as INSV Kaundinya, built using the Tankai method.

### About INS Kaundinya

- It is based on a 5<sup>th</sup> century CE ship depicted in the **paintings of Ajanta Caves**.
- Project initiated through tripartite agreement between **Ministry of Culture, Indian Navy, and M/s Hodi Innovations**.

### About the Tankai Method

- It is a **2000-year-old** technique of shipbuilding known as the **stitched shipbuilding method**.
- It involves stitching **wooden planks together rather than using nails**, offering flexibility and durability.

### India's Glorious Maritime Heritage

<b>Trade and commerce</b>	<ul style="list-style-type: none"> <li>➤ Harappan seals in Mesopotamia and Lothal docks indicate ancient maritime trade.</li> <li>➤ Rig Veda mentions overseas trade.</li> <li>➤ <b>Cholas, Cheras, Pandyas</b> had well established trade links with the <b>Roman Empire</b>.</li> <li>➤ <b>Vijayanagar and the Bahmani kingdom</b> imported horses via port of Goa from Iran, Iraq.</li> </ul>
---------------------------	--

<b>Cultural diffusion</b>	<ul style="list-style-type: none"> <li>➤ Ashoka's son, Mahendra, and daughter, Sanghamitra, had sailed from Tamralipti in West Bengal to <b>Ceylon to spread Buddhism</b>.</li> <li>➤ Spread of <b>Indian religions, architecture and languages</b>. E.g., <b>Borobudur temple</b> in Java, <b>Angkor wat</b> temple in Cambodia.</li> </ul>
<b>Naval prowess and maritime Knowledge</b>	<p>The <b>Magadh navy</b> is considered the world's first recorded naval force and <b>Chanakya's Arthashastra</b> mentions the department of naval warfare.</p> <p>Rajendra Chola-I led naval campaigns to Sri Lanka and Srivijaya.</p> <p><b>Chhatrapati Shivaji Maharaj</b> built coastal forts like <b>Vijaydurg</b> and <b>Sindhudurg</b></p>
<b>Maritime diplomacy</b>	<p><b>Meghavarman</b>, ruler of Sri Lanka, sent a missionary to <b>Samudragupta</b> for permission to build a Buddhist temple at Gaya.</p> <p><b>Sailendra dynasty</b> sent embassies to <b>Pala</b> court and sought permission to build monastery at Nalanda.</p>

### Government Initiatives for Reclaiming Maritime Heritage

- **National Maritime Heritage Complex at Lothal**: To showcase the historic maritime legacy of the country.
- **Project Mausam**: To explore historical and cultural connections among Indian Ocean nations.
- **National Perspective plan Sagarmala program**: To revive and restore eminence in the global maritime sector.

### Other famous paintings of Ajanta

- Paintings of various **Bodhisattvas**: **Vajrapani** (symbol of Buddha's power), **Manjusri** (Symbol of Buddha's wisdom) and **Padampani** (Symbol of Buddha's compassion).
- Painting of the reception given to a Persian embassy by **Chalukyan King Pulakeshin II**.
- Painting of **Shibi Jataka** (king Shibi offers flesh to save a pigeon), **Matripooshaka Jataka** (an ungrateful person saved by an elephant discloses its location).

## 8.9. NEWS IN SHORTS

### 8.9.1. Kumbakonam Vetrilai and Thovalai Maanikka Maalai

Kumbakonam vetrilai and Thovalai maanikka maalai from **Tamil Nadu** were granted a Geographical Indication (GI) tag.

#### About Kumbakonam Vetrilai

- It is a **betel (pan) leaf**.
- It is grown in Thanjavur's fertile **Cauvery River basin**.
- It is known for its high **antioxidant and anti-inflammatory properties**, due to the presence of chavicol.

#### About Thovalai maanikka maalai

- It is a special type of garland that is made only in Thovalai.
- The flowers are folded and arranged in patterns to create appearance of gems (especially rubies) in a geometrically manner.

### About the GI tag

- It is a sign used on products that have a specific **geographical origin** and **possess qualities or a reputation due to origin**.
- Administered by the **Geographical Indications of Goods (Registration and Protection) Act of 1999**.
- Part of **intellectual property rights** under **Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement**.
- **Department for Promotion of Industry and Internal Trade**, Ministry of Commerce and Industry, awards GIs.
- The registration of a GI tag shall be for **ten years (can be renewed)**.
- **Uttar Pradesh** holds the highest number of GI tags.

### 8.9.2. Kashmiri Pashmina Shawl

**Indian PM Gifts Handicrafts** (Kashmiri Pashmina shawl) during Ghana Visit

### Kashmiri Pashmina shawl

- Woven from fine undercoat of **Changthangi (Pashmina) goat** from high-altitude Ladakh.
- Celebrated for its softness and warmth,

### Other Handicrafts

- **Bidriware vases (Bidar, Karnataka): Zinc-copper alloy** with black finish, silver inlay, engraved floral motifs symbolizing beauty, prosperity, harmony.
- **Silver filigree purse (Cuttack, Odisha): Tarakasi work** with intricate floral and vine designs in modern style.
- **Miniature Ambawari elephant (West Bengal):** Crafted from polished synthetic ivory, an ethical alternative to natural ivory.

All the listed handicrafts, except the Miniature Ambawari Elephant, have been granted a Geographical Indication (GI) tag.

### 8.9.3. Piprahwa Relics

India witnessed return of **Lord Buddha's** sacred **Piprahwa Relics**.

#### About Piprahwa Relics

- **Discovery: 1898** by British civil engineer **William Claxton Peppé** in **Piprahwa, Siddharthnagar** (ancient Kapilavastu), Uttar Pradesh.
- **Significance:** Associated with **mortal remains** of Buddha.
- **Key Features:** Include bone fragments, soapstone and crystal caskets, a sandstone coffer, and offerings like gold ornaments, etc.
- **Enshrined Around:** 3rd century BCE.
  - ➔ A **Brahmi script inscription** on one of the caskets confirms them as Buddha relics, deposited by **Sakya clan**.
- **Classified as: 'AA' antiquities** under Indian law, prohibiting their removal or sale.

### 8.9.4. Emblems and Names (Prevention of Improper Use) Act, 1950

Supreme Court dismissed plea with respect to honoring legacy of a freedom fighter under **Emblems and Names (Prevention of Improper Use) Act, 1950**.

#### About Emblems Act:

- **Aim: Prevents misuse of certain emblems** and names for professional and commercial purposes or for trade mark, or patents without Central Government permission.
- **Defines Emblems:** Emblem Includes any **emblem, seal, flag, insignia, coat-of-arms or pictorial representation**.
- **Scope:** Applies across India and to Indian citizens abroad.

### Protection Under Emblems and Names (Prevention of Improper Use) Act, 1950



#### National Symbols

- Indian National Flag
- Names, emblems, or seals of the Government of India or any State
- Ashoka Chakra/Dharma Chakra (name or image)
- Medals, badges, decorations by the Government



#### Key Personalities

- Mahatma Gandhi
- Indira Gandhi
- Chhatrapati Shivaji Maharaj
- Prime Minister of India
- Words: "Gandhi", "Nehru", "Shivaji"



#### Important Institutions & Buildings

- Names, emblems, or seals of the President and Governors
- Parliament, State Legislatures
- Supreme Court, High Courts
- Central/State Secretariat offices
- Pictorial representations of these buildings



#### Organizations & Missions

- Ramakrishna Math and Mission
- Bharat Scouts and Guides
- National Youth Emblem
- Auroville
- Sri Sathya Sai
- NHRC (National Human Rights Commission)



#### International Organizations

- United Nations (UN), WHO, UNESCO
- International Civil Aviation Organization (ICAO)
- INTERPOL
- FIFA, FIFA U-17 World Cup
- International Olympic Committee (IOC)

### 8.9.5. National Film Awards 2023

Recently 71st National Film Awards were announced.

#### About the National Film Award

- **Genesis:** Established in 1954 by the Government of India.
- **Presentation:** Conferred annually by **Indian President**.
- **Award Sections:** Features Film, Dadasaheb Phalke Award, etc.
  - ➔ **Dada Saheb Phalke Award:** Highest cinema award, instituted 1969.

### 8.9.6. Vitthalbhai Patel

100 years of Vitthalbhai Patel becoming **first elected Indian President of the Central Legislative Assembly** (August 1925).

#### About Vitthalbhai Patel (1873–1933)

- **Born:** Nadiad, Gujarat.
- **Profile:** Elder brother of Sardar Vallabhbhai Patel, political leader, lawyer, and social reformer.



### Key Contributions

- **Reforms:** Advocated social and political reforms for India's freedom.
- **Councils:** Member of Bombay Legislative Council; elected to Imperial Legislative Council in 1918.
- **Swaraj Party:** Co-founded with Motilal Nehru and Chittaranjan Das in 1922.
- **Mayor:** Bombay Municipal Corporation (1923 – 1925).

### 8.9.7. World Test Championship

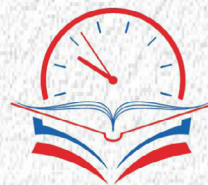
**South Africa** recently won the World Test Championship against titleholder Australia.

### About World Test Championship (WTC)

- **Genesis:** In **2019**; **Teams playing WTC:** The Top nine test teams of the world.
- **Format:** Each team plays three home and three away series.
  - ➔ Each match in a **bilateral test series contributes** points towards the WTC standings over a two-year cycle.
  - ➔ Each series consists of a minimum of two (2) Tests, and a maximum of five (5) Tests.
  - ➔ The top two teams (as per **points percentage system and not on matches won**) compete in finals.



with



**A.I.T.S.**  
ALL INDIA GS PRELIMS TEST SERIES 2025

**"Personalise Your UPSC Prelims Preparation"**

**2026**

**ENGLISH MEDIUM**  
**21 SEPTEMBER**

**हिन्दी माध्यम**  
**21 सितम्बर**

**HINDI & ENGLISH MEDIUM**



Access **25000+** questions



Choose your **subject** and topic



Create your test from **VisionIAS** or UPSC PYQs



**Performance** and Progress Analysis

## 8.10. TEST YOUR LEARNING

**1. With reference to the Emblems and Names (Prevention of Improper Use) Act, 1950, consider the following statements:**

1. The Act prohibits the use of certain emblems and names for commercial purposes without the prior approval of the Central Government.
2. The Act applies only within the territory of India and not to Indian citizens residing abroad.
3. It includes seals, flags, and pictorial representations under the definition of "emblems".

Which of the statements given above is/are correct?

- (a) Only One
- (b) Only two
- (c) Only three
- (d) None

**2. With reference to the Maratha Military Landscapes of India, recently added to the UNESCO World Heritage List, consider the following statements:**

1. The Maratha Military Landscapes are located exclusively in the state of Maharashtra.
2. The Gingee Hill Fort, located in Tamil Nadu, is one of the sites included in this designation.
3. Raigad Hill Fort, selected by Chhatrapati Shivaji for his permanent capital, is part of this landscape.

Which of the statements given above is/are correct?

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

**3. Consider the following statements regarding the Piprahwa Relics:**

1. The relics were discovered in Piprahwa, Uttar Pradesh, and are associated with the mortal remains of Lord Buddha.

2. A Brahmi script inscription on one of the caskets confirms them as Buddha relics, deposited by the Maurya clan.
3. Under Indian law, these relics are classified as 'AA' antiquities, which prohibits their removal or sale.

Which of the statements given above is/are correct?

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

**4. Which of the following personalities were contemporaries of Goswami Tulsidas ji (1532–1623)?**

1. Surdas
2. Mirabai
3. Chaitanya Mahaprabhu
4. Sant Eknath
5. Tukaram

Select the correct option given below,

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

**5. In which year was the Kakori Train Action executed?**

- 1920
- 1925
- 1930
- 1942

### Mains Question

**Q1. (150 words)**

"Ajanta paintings are not only masterpieces of ancient Indian art but also valuable sources of historical, religious, and cultural narratives." Discuss with examples.

**Q2. (250 words)**

The Chola Gangam Lake and the Great Living Chola Temples are profound testaments to the Imperial Chola Dynasty's architectural, engineering, and cultural achievements. Examine the multi-faceted legacy of the Cholas, particularly focusing on their contributions to water management, religious traditions, and maritime power.

# ETHICS



## Table of Content

9.1. TRUST IN PUBLIC INSTITUTIONS . . . . .	153	9.4. VALUES OF MAHATMA GANDHI AND SREE NARAYAN GURU . . . . .	155
9.2. ETHICS OF STRAY DOG MANAGEMENT . . . . .	154	9.5. INTEGRAL HUMANISM (EKATM MANAVVAD) . . . . .	156
9.3. CELEBRITIES AND ENDORSEMENT OF PRODUCTS . . . . .	155	9.6. TEST YOUR LEARNING . . . . .	157

## 9.1. TRUST IN PUBLIC INSTITUTIONS

### Introduction

Allegations of political misuse of bodies like ECI, ED, and CBI have raised concerns over eroding trust in India's public institutions. **UN World Social Report 2025** shows global institutional trust decline; over half the population now has little or no trust in governments, based on 1995–2022 survey data.

### What is meant by Trust?

- **OECD defines trust** as belief that institutions or individuals act consistently with positive expectations.
  - ➔ **Trust** underpins the social contract, crucial for governance with clear understanding of its nature, drivers, and consequences.
- **Types of Trust:**
  - ➔ **Horizontal:** among community members.
  - ➔ **Vertical:** in governing institutions.
  - ➔ **Social:** generalized trust in strangers.
  - ➔ **Political:** confidence in institutions and actors.

### Stakeholders and their Interests in maintaining Trust in Public Institutions

Stakeholder	Interest
<b>Citizens</b>	Efficient services, public participation, well-being, stability
<b>Government</b>	Legitimate policy making, compliance, effective enforcement, smoother governance.
<b>Civil Society &amp; Media</b>	Freedom of expression, rights advocacy.
<b>Private Sector</b>	Predictable regulations, fair competition, reduced corruption, entrepreneurship

### Reasons behind erosion of Trust in Public Institutions

- **Administrative non-performance:** Poor service quality, unresponsiveness and abuse of authority. (**2<sup>nd</sup> ARC**).
- **Economic Insecurity:** Failure to provide economic security erodes the social contract, with less secure groups reporting lower trust. (**UNDESA**).
- **Political Exclusion:** Marginalized groups' limited influence restricts their ability to demand better policies or services.
- **Scandals and Corruption:** Undermine trust by suggesting institutions prioritize self-interest over public good.
- **Disinformation and Social Media:** Amplifies perceived failures, manipulates views, and questions election legitimacy.
- **Inefficient Judicial systems:** Weakens rule of law and limits remedies for grievances against institutions.

### Major Drivers of Trust in Public Institutions

Competencies	
<b>Reliability</b>	Protection in emergencies, legitimate data use, satisfaction with services.
<b>Responsiveness</b>	Services improved via feedback, innovation, evidence-based decisions.
Values	
<b>Transparency</b>	Accessible information, citizen participation, clear reforms.
<b>Integrity</b>	Accountability among government branches.
<b>Fairness</b>	Equal treatment in services, benefits, and representation of diverse groups.

### Measures to improve Trust in Public Institutions

- **Foster citizen engagement:** through policymaking like **Social Audit**.
- **Consistent implementation:** Improving service delivery **E.g., DBT**.
- **Promoting transparency:** through open data and **dashboards**.

- **Uphold ethical governance:** with equity and focus on marginalized groups.
- **Establish independent anti-corruption bodies:** E.g., **Lokpal and Lokayukta**.
- **Strengthen institutional frameworks:** with parliamentary – executive harmony and independent judiciary.
- **Address misinformation using technology:** Adopting **governance models** like **Fact Checking Units**.

### Conclusion

Trust is vital for society and representative democracy; its erosion signals a “crisis of democracy,” undermining institutions, actors, and democratic quality.

## 9.2. ETHICS OF STRAY DOG MANAGEMENT

### Introduction

In 2024, 37 lakh dog bite cases were reported; India leads **global rabies deaths**. **Supreme Court** ruled vaccinated stray dogs be released, stressing **balance** between animal protection and citizen safety.

### Key Stakeholders and Invested interest

Stakeholders	Interest
<b>Residents</b>	Fundamental duty of compassion ( <b>Art. 51A(g)</b> ), but face safety, health risks; vulnerable groups like children and elderly at higher risk.
<b>Pet Owners</b>	<b>Contribute via</b> abandonment; solutions through responsible ownership and stray management support.
<b>Government Agencies</b>	Vaccination, sterilization, stray control; municipal responsibility ( <b>Art. 243W, 246</b> ); <b>NCDC targets rabies elimination by 2030</b> under <b>NAPRE</b> .
<b>Supreme Court</b>	Balancing public health and animal rights.
<b>Animal Welfare Organizations</b>	Promote care models, oppose culling; <b>AWBI issues revised ABC module</b> .

### Ethical Values in Conflict in Management of Stray Dogs

- **Compassion vs. Public Safety:** Feeding sustains strays but may increase aggression.
- **Animal Rights vs. Human Rights:** Animals’ right to live (**Art. 21, Jallikattu Case 2014**) conflicts with humans’ right to safety, property, and fear-free spaces.
- **Kant vs Utilitarianism:** Kant demands dignity for animals, opposing utilitarian sacrifice for human convenience.
- **Non-Maleficence Dilemma:** Solutions must minimize harm to humans and animals, often unmet in practice.
- **Rights-Duties Paradox:** Though animals lack duties, vulnerability and sentience justify rights, similar to infants or the disabled.

### Ways for Ethical Management of Stray Dogs

- **Principle of Beneficence:** Promote welfare of humans and animals through **proactive interventions**. **Animal Birth Control (ABC) Rules, 2023** focus on sterilization/vaccination; **Netherlands** encourages shelter adoptions via higher dog taxes.
- **Proportionality & Graduated Response:** Actions must match risks, based on evidence, starting with least harmful measures; e.g., **SC ordered shelters, sterilization after rabies spike in Delhi-NCR**.
- **Virtue Ethics:** Cultivating compassion, responsibility, and community engagement for sustainable practices.
- **National Rabies Control Program:** Phased rabies prevention in Tier-1/2 cities, with strengthened surveillance.
- **Local Bodies and Volunteers:** Empower RWAs, NGOs, and citizen support for dog management.

### Conclusion

Stray dog management requires a multi-stakeholder approach involving local bodies, communities, and animal rights groups, aligning with the One Health framework.



## 9.3. CELEBRITIES AND ENDORSEMENT OF PRODUCTS

### Introduction

**Enforcement Directorate (ED) charged many celebrities**, including popular actors and TV hosts, for allegedly **promoting illegal betting apps**, violating gambling and money laundering laws.

Stakeholders	Key Interests
<b>Celebrities</b>	<ul style="list-style-type: none"> <li>➤ <b>Ensuring public welfare</b>, otherwise risk to personal credibility.</li> <li>➤ <b>Moral duty of role models</b> is upholding the <b>highest ethical standards</b>.</li> </ul>
<b>Companies/Platforms</b>	<ul style="list-style-type: none"> <li>➤ <b>Maximising profits</b> and market reach.</li> <li>➤ <b>Respecting law of the land</b> upholding and corporate social responsibility.</li> </ul>
<b>Government Agencies</b>	<ul style="list-style-type: none"> <li>➤ Enforcing laws, <b>protecting consumers</b>, preventing money laundering.</li> <li>➤ <b>Maintain trust in public systems</b> by curbing unlawful promotions.</li> </ul>
<b>Society at large (especially youth)</b>	<ul style="list-style-type: none"> <li>➤ Maintaining <b>informed decision-making</b> under celebrity influence.</li> <li>➤ Potential for <b>financial losses, addiction</b>, or unlawful activity participation.</li> </ul>

### Key Ethical Issues in Celebrity Endorsement of Harmful Products

- **Autonomy & Consent:** Emotional appeal hides risks, violating Kantian ethics; ASCI requires disclosure and truthful claims.
- **Accountability:** Gandhian trusteeship demands using fame for welfare; Consumer Protection Act, 2019 makes endorsers liable.
- **Beneficence & Non-Maleficence:** Celebrities must “do good, not harm”; endorsing harmful products breaches this.
- **Role-Model Integrity:** Virtue ethics stresses honesty; repeated questionable ads erode moral authority.

### Challenges

- High financial incentives override ethics.
- Celebrities rely on company claims → misinformation risk.
- Celebrity worship hinders accountability.
- Fast-emerging sectors (crypto, betting) outpace regulation.
- Regulators lack capacity to monitor vast endorsements.

### Way Forward

- Celebrities should self-audit, ensure legality, disclose promotions, and support public-good causes.
- Brands must prioritize social responsibility.
- Stronger frameworks: sector rules, mandatory disclosure, self-regulation councils.
- Awareness campaigns to foster critical consumers.
- Collective moral duty beyond punishment.

### Conclusion

Celebrity endorsements carry moral weight; fame must be exercised as public trust with responsibility.

## 9.4. VALUES OF MAHATMA GANDHI AND SREE NARAYAN GURU

### Introduction

India marked 100 years of the historic 1925 conversation between Sree Narayana Guru and Mahatma Gandhi at **Sivagiri Mutt, Kerala**. The dialogue focused on Vaikom Satyagraha, untouchability, non-violence, and upliftment of the downtrodden.

### About Sree Narayana Naryan Guru (1856–1928)

- Born in **Chembazhanthi, Kerala**.
- Founded **SNDP** (1903) for marginalized uplift.
- Promoted Advaita Vedanta.
- Consecrated Shiva Linga at Aruvippuram.
- Views of Sree Narayana Guru and Mahatma Gandhi on Various Aspects

Aspect	Sree Narayana Guru	Mahatma Gandhi
<b>Social Reform</b>	Opposed caste as artificial, promoting "One Caste, One Religion, One God" and urged gradual, educative caste erasure.	Gandhiji opposed untouchability but supported Varnashrama, viewing varnas as natural occupational classifications of society.
<b>Religious Views</b>	He believed all religions could lead to spiritual liberation.	He viewed all religions as moral paths to truth and condemned politics divorced from ethical, spiritual values.
<b>Temple Entry &amp; Social Equality</b>	<b>Opened temples</b> to all castes	<b>Supported temple entry movements</b> and the rights of Dalits.
<b>Education</b>	He saw education as key to progress, fighting social evils, and empowering women equally.	He promoted <b>Nai Talim</b> , blending manual work with academics, stressing vocational skills and mother tongue education.

## 9.5. INTEGRAL HUMANISM (EKATM MANAVVAD)

### Introduction

In the 1960s, Deendayal Upadhyaya's Integral Humanism emphasized dignity, harmony, and solidarity for India's holistic development.

### About Integral Humanism Philosophy (Ekatma Manav Darshan)

- **Proposed** by Deendayal Upadhyaya in the 1960s, it seeks a dignified life for all by balancing individual and societal needs.
- It integrates spiritual, social, and economic aspects of life, centered around **Purusharthas i.e. Dharma, Artha, Kama, and Moksha**.
- It **opposes Western ideologies** like capitalist individualism and Marxist socialism, aiming for an indigenous development model.
- **Key principles:**
  - ➔ Primacy of whole, no part
  - ➔ Supremacy of Dharma
  - ➔ Autonomy of society

### Core tenets in contemporary times

- **Cultural nationalism** blending tradition with modernity.
- **Social harmony** and caste eradication.
- **Antyodaya:** Upliftment of the poorest.
  - ➔ His vision of '**education for all**' and '**har hath ko kam, har khet ko pani**' was seen culminating in his idea of Economic Democracy.
- Ethical, transparent governance (Dharma Rajya).
- **Decentralization**, self-reliant village economy.

### About Pandit Deen Dayal Upadhyay (1916–1968)

- Indian philosopher, economist, political activist from Mathura
- **Books:** Samrat Chandragupt, Jagatguru Shankaracharya
  - ➔ Edited Panchajanya and Swadesh
- Shared Gandhian ideas like Sarvodaya, Gram Swaraj, and opposed untouchability and social injustice.

## 9.6. TEST YOUR LEARNING

### Mains Question

#### Q1. (150 words)

With the rise of digital platforms, celebrities promoting illegal or harmful products have attracted increasing scrutiny and raise questions of transparency and ethical responsibility. Comment.

#### Q2. (250 words)

Analyse the principles of Sree Narayana Guru and Mahatma Gandhi in context of social and political perspectives.

## ALL INDIA MAINS TEST SERIES

Get the Benefit of Innovative Assessment System from the leader in the Test Series Program

- **General Studies** (हिन्दी माध्यम में भी उपलब्ध)
- **Essay** (हिन्दी माध्यम में भी उपलब्ध)
- **Philosophy** (हिन्दी माध्यम में भी उपलब्ध)
- **Sociology**
- **Political Science & IR**
- **Anthropology**
- **Geography**



**2026**

**ENGLISH MEDIUM**  
**21 SEPTEMBER**

**हिन्दी माध्यम**  
**21 सितम्बर**



Scan **QR code** for  
instant personalized  
mentoring

## 10. GOVERNMENT SCHEMES

### 10.1. Pradhan Mantri Viksit Bharat Rozgar Yojana

#### Why in News?

PM announced **Pradhan Mantri Viksit Bharat Rozgar Yojana** to boost youth employment.

#### Objectives

- **Job creation, skilling, employability, and social security**, especially in manufacturing.
- **Target:** 3.5 crore jobs in 2 years.
- **Nodal Ministry:** Ministry of Labour & Employment, via EPFO.

#### Key Features

- **Part A – Support to First-Time Employees**
  - ➔ **Incentive:** 1month EPF wage (max ₹15,000) in 2 instalments (after 6 & 12 months and financial literacy program).
  - ➔ **Eligible:** Salaries up to ₹1 lakh.
  - ➔ **Benefits:** Formalised jobs, on-job training, savings habit, financial literacy.
  - ➔ **Payment:** DBT through Aadhar-based system.
- **Part B – Incentives to Employers**
  - ➔ For new employees (salary ≤ ₹1 lakh).
  - ➔ **Incentive:** Up to ₹3000/month for 2 years (extended to 4 yrs in manufacturing).
  - ➔ Paid directly to **PAN-linked accounts**.
  - ➔ **Benefits:** Job creation offset, workforce stability, social security coverage.

### 10.2. Scheme to Promote Manufacturing of Electric Passenger Cars in India

#### Why in the News?

Ministry of Heavy Industries notified the Guidelines for Scheme.

#### Features

- **Ministry & Implementation:** Run by Ministry of Heavy Industries; executed by a Project Management Agency (PMA).
- **Tenure:** 5 years or as notified.
- **Eligible Investments:** Only new plant, machinery, charging infra, and equipment qualify; no refurbished assets.
- **Eligibility Criteria:**
  - ➔ ₹10,000 crore global auto revenue
  - ➔ ₹3,000 crore global fixed assets
  - ➔ ₹4,150 crore investment in India within 3 years
  - ➔ 25% DVA in 3 years; 50% DVA in 5 years

➔ Bank guarantee mandatory

- **Performance Norms:** EVs must meet PLI Auto scheme benchmarks.
- **Key Benefits:**
  - ➔ Import up to 8,000 e-4W CBUs/year at 15% duty.
  - ➔ Concession valid for 5 years.

### 10.3. Pradhan Mantri Ujjwala Yojana (PMUY)

#### Why in News?

**Union Cabinet** approved ₹12,000 crore targeted subsidy for **PMUY consumers in 2025-26**.

#### Objectives

- Provide **LPG connections to BPL families**.
- Promote **clean energy, reduce indoor pollution**, empower women with **safe cooking fuel**.

#### Features

- Launched **2016 (8 crore deposits-free connections)**.
- **Ujjwala 2.0 (2021):** +1.6 crore connections; facility for migrant households.
- **Target (2023-26):** 10.35 crore connections.
- **Type:** Central Sector Scheme by **Ministry of Petroleum & Natural Gas (MoPNG) with OMCs + states**.
- **Eligibility:** Adult woman (≥18 yrs) from BPL household without LPG.
- **Migrants:** Only self-declaration, no ration card required.

#### Benefits

- **Cash Assistance:** ₹1600 (14.2 kg) / ₹1150 (5 kg) covers cylinder, regulator, hose, card, installation.
- Free **first refill and stove** with **deposit-free connection**.
- **Targeted subsidy:** ₹300 per 14.2 kg cylinder for up to 12 refills/year.
- **Exclusions:** Households **already having LPG or no adult female member**.
- **Awareness:** LPG Panchayat for **safety and benefits**.

#### Achievements

- **10.33 crore connections** till Mar 2025.
- **Globally recognised by IEA & WHO** for health and environmental impact.
- **Beneficiaries of PMUY:** Identified Households from SECC List-2011, SC/ST households, PMAY (Gramin) beneficiaries, Antodaya Anna Yojana, Most Backward Classes, Forest Dwellers, Residents of Islands/River Islands, Tea Garden and Ex-tea Garden Tribes, Other Poor Families.



## 10.4. Pradhan Mantri Kisan Sampada Yojana (PMKSY)

### Why in the News?

Cabinet approved ₹1920 crore additional outlay for PMKSY during 15th Finance Commission cycle.

### Features

- **Ministry:** Ministry of Food Processing Industries (MoFPI)
- **Type:** Central Sector Scheme
- **Tenure:** From 2021-22 to 2025-26
- **Originally approved** as (Scheme for Agro-marine processing and Development of Agro-processing Clusters) SAMPADA in 2017; renamed PMKSY with some components discontinued.

### Objectives

- Create **modern infrastructure and efficient supply chain** from farm to retail.
- Provide **better returns to farmers**
- **Reduce agricultural wastage**, increase processing, and boost processed food exports.

### Component of PMKSY

- **Integrated Cold Chain:** Cold chain facilities from farm to consumer by firms, cooperatives, SHGs, FPOs, NGOs, PSUs; fruits and vegetables cold chain under Operation Greens.

- **Agro Processing Cluster:** Small food processing units on minimum 10 acres.
- **Food Processing Capacity:** Expand/modernize units in Mega Food Parks and APCs by PSUs, private firms, cooperatives, etc.
- **Food Safety & Quality:** Support for testing labs and certifications (HACCP, ISO 22000).
- **Human Resource & Research:** 100 R&D projects sanctioned under 15th FC.
- **Operation Greens (OG):** Launched 2018-19 Budget, initially for Tomato, Onion, Potato (TOP); long term covers 22 crops, short term expanded from TOP to all fruits and vegetables (TOP to TOTAL).
- **Financial Management**
  - ➔ **Inter-scheme Reallocation:** Minister can approve 25% outlay reallocation post mid-term review.
  - ➔ **Use of Savings:** Savings from committed liabilities used for new projects.
- **Awareness:** Wide publicity to maximize stakeholder benefits from PMKSY.



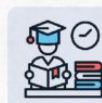
# Vision Publication

## Igniting Passion for Knowledge..!

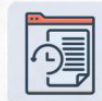


Scan the QR code to explore our collection and start your journey towards success.

### Explore Our Latest Publications



**Empower Learners**



**Stay Current**



**Foster In-Depth Understanding**



**Support Last-Minute Prep**



## 10.1. TEST YOUR LEARNING

**1. Which is implementing ministry for the Pradhan Mantri Viksit Bharat Rozgar Yojana?**

- (a) Ministry of Fisheries, Animal Husbandry and Dairying.
- (b) Ministry of Labour & Employment.
- (c) Ministry of Rural Development.
- (d) Ministry of Environment, Forest and Climate Change.

**2. Consider the following statements regarding the Scheme to Promote Manufacturing of Electric Passenger Cars in India:**

- 1. It is implemented by the Ministry of Heavy Industries through a Project Management Agency (PMA).
- 2. Only refurbished machinery and assets are eligible for investment under the scheme.
- 3. Companies must have a minimum global auto revenue of ₹10,000 crore to qualify.
- 4. The scheme mandates 25% Domestic Value Addition (DVA) in 3 years and 50% in 5 years.

Which of the above statements are correct?

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

**3. Consider the following statements about Pradhan Mantri Ujjwala Yojana (PMUY):**

- 1. Only women above 21 years from BPL households are eligible for an LPG connection under PMUY.
- 2. Under Ujjwala 2.0, migrant households can avail LPG connections based on self-declaration without a ration card.

Which of the above statement(s) is/are correct?

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

**4. With reference to Pradhan Mantri Kisan Sampada Yojana (PMKSY), consider the following statements:**

- 1. It is a Central Sector Scheme under the Ministry of Food Processing Industries.
- 2. It was originally launched in 2017 as SAMPADA and later renamed PMKSY.

Which of the above statement(s) is/are correct?

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

**5. Under PMUY, which of the following are eligible categories of beneficiaries?**

- 1. Antodaya Anna Yojana households
- 2. PMAY (Gramin) beneficiaries
- 3. Tea garden and ex-tea garden tribes
- 4. All households already possessing an LPG connection

Select the correct answer using the code given below:

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

# ANSWER KEY

## Polity

1	2	3	4	5
Answer: B	Answer: B	Answer: C	Answer: B	Answer: C

## International Relations

1	2	3	4	5
Answer: C	Answer: B	Answer: B	Answer: B	Answer: C

## Economy

1	2	3	4	5
Answer: C	Answer: B	Answer: B	Answer: A	Answer: A

## Security

1	2	3	4	5
Answer: A	Answer: A	Answer: B	Answer: B	Answer: D

## Environment

1	2	3	4	5
Answer: B	Answer: C	Answer: A	Answer: B	Answer: B

## Social Issue

1	2	3	4	5
Answer: C	Answer: B	Answer: B	Answer: B	Answer: B

## Science and Technology

1	2	3	4	5
Answer: C	Answer: D	Answer: B	Answer: B	Answer: C

## Culture

1	2	3	4	5
Answer: B	Answer: B	Answer: C	Answer: D	Answer: B

## Schemes in News

1	2	3	4	5
Answer: B	Answer: C	Answer: B	Answer: C	Answer: B

Master

# UPSC PRELIMS CHALLENGES in CURRENT AFFAIRS with VISIONIAS PT365



How to Prepare  
Current Affairs

Current affairs forms the cornerstone of civil services exam preparation, permeating all its phases – **Prelims, Mains, and the Interview**. Staying updated with current affairs equips aspirants to navigate the evolving landscape of the civil services exam. With the right resources and approach, candidates can transform this vast section into a strong advantage.

## What is PT 365?

PT 365 document comprehensively covers the important and relevant current affairs of the last 1 year in a consolidated manner to aid Prelims preparation. It is devised as a revision document of the current affairs.

### Features of PT365



#### Comprehensive Coverage

- Entire year's current affairs coverage.
- UPSC relevant subjects like Polity, Economy, S&T, Environment, IR, etc.
- Emphasis on topics likely to appear in upcoming prelims exam.



#### Clear and Concise Information

- Clear, concise presentation focusing on key issues.
- Information from credible sources.
- Appendices for rapid revision.



#### QR based Smart quiz

- Interactive feature to assess aspirant's learning and comprehension.



#### Infographics

- Aids in understanding and retention.
- Techniques, methods, and processes displayed.
- Strategic use of maps to enhance learning.



#### Government Schemes and Policies

- In-depth coverage of key government schemes, policies, and initiatives.



#### New Elements

- Tailored to reflect the pattern of previous year's questions.



Scan this QR code  
to watch video

## Significance of PT 365



**Ease of Revision:** Content categorisation is based on subjects or topics to make it easier for aspirants to locate and revise specific areas



**Value Addition:** Includes infographics, related developments, or news, ensuring comprehensive coverage of important information.



**Crisp Material:** Crisp points have been used in the articles. It allows aspirants to easily do multiple revisions in limited span of time.



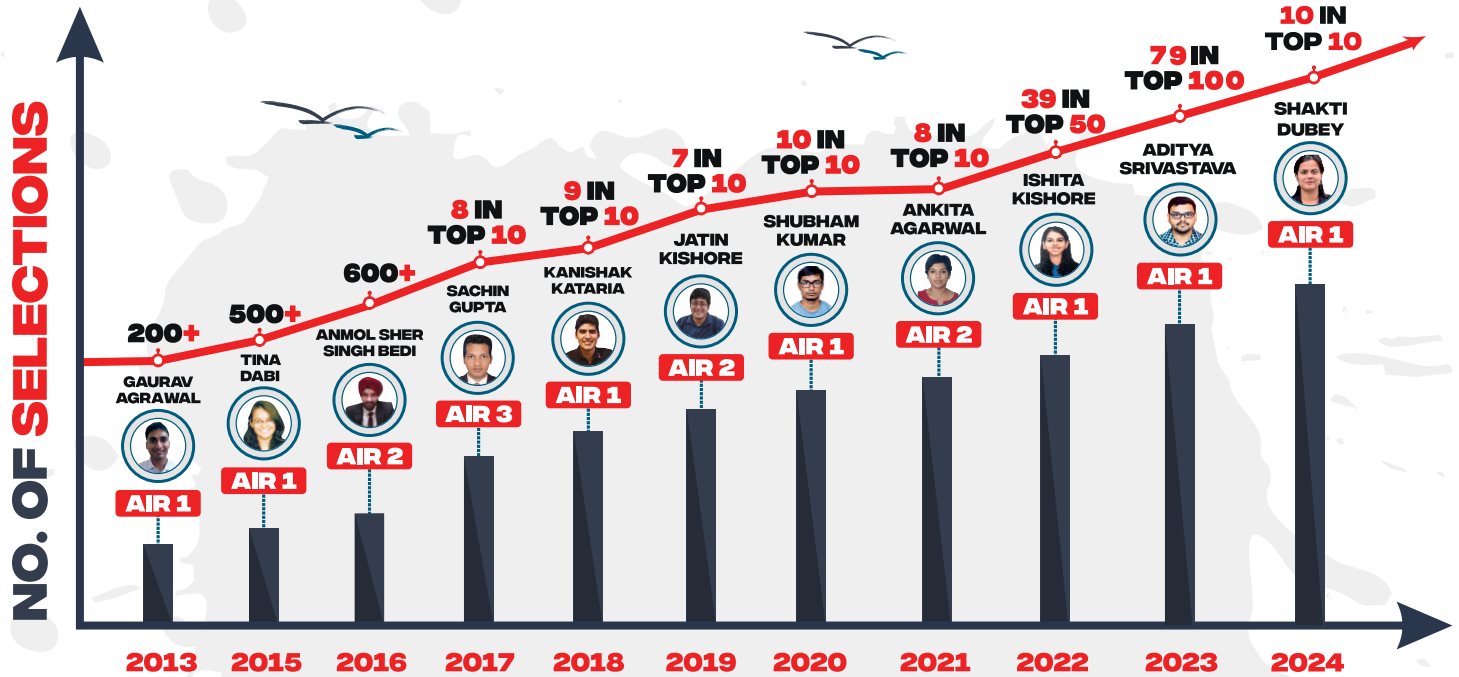
**Integrated Approach:** Covers basic concepts and information of all current affairs in a lucid manner, in line with previous trends of UPSC questions. Also helps in integrating key current affairs with static knowledge.



Scan this QR code  
to Know More

PT 365 is a time and tested document. In the previous years, it has helped lakhs of candidates to cover current affairs in a holistic way. It's impactful features make it easier for aspirants to understand current affairs and excel in the UPSC Civil Services examination.

**OUR ACHIEVEMENTS**



**LIVE/ONLINE**  
Classes Available  
[www.visionias.in](http://www.visionias.in)

# Foundation Course GENERAL STUDIES PRELIMS cum MAINS

**2026, 2027 & 2028**

**DELHI : 9 SEPT, 11 AM | 18 SEPT, 8 AM | 25 SEPT, 5 PM**

**GTB Nagar Metro (Mukherjee Nagar): 22 SEPTEMBER, 6 PM**

**हिन्दी माध्यम 11 सितम्बर, 2 PM**

**AHMEDABAD: 12 JULY**

**CHANDIGARH: 18 JUNE**

**HYDERABAD: 3 SEP**

**JAIPUR: 22 SEPT**

**JODHPUR: 15 SEP**

**PUNE: 14 JULY**

**2027, 2028 & 2029**

**DELHI  
22 SEPTEMBER | 5 PM**

**BENGALURU: 22 SEP**

**BHOPAL: 22 SEP**

**LUCKNOW: 22 SEP**



Scan QR code for  
instant personalized  
mentoring

## फाउंडेशन कोर्स सामान्य अध्ययन 2026

► प्रारंभिक, मुख्य परीक्षा और निबंध के लिए महत्वपूर्ण सभी टॉपिक का विस्तृत कवरेज

**DELHI: 11 सितम्बर, 2 PM**

**JAIPUR: 22 सितम्बर**

**JODHPUR: 15 सितम्बर**



Scan the QR CODE to download **VISION IAS** App. Join  
official telegram group for daily MCQs & other updates.

[/visionias.upsc](https://www.facebook.com/visionias.upsc)

[/c/VisionIASdelhi](https://www.youtube.com/channel/UCVnIAsDelhi)

[/c/VisionIASdelhi](https://www.instagram.com/visioniasdelhi)

[/t.me/s/VisionIAS\\_UPSC](https://t.me/s/VisionIAS_UPSC)

# Heartiest Congratulations

to all Successful Candidates

# 10

in TOP 10 Selections in CSE 2024

from various programs of Vision IAS

# 1

AIR



**Shakti Dubey**

# 2

AIR



**Harshita Goyal**

# 3

AIR



**Dongre Archit Parag**

# 4

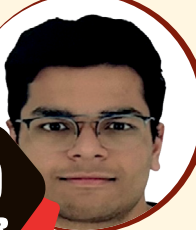
AIR



**Shah Margi Chirag**

# 5

AIR



**Aakash Garg**

# 6

AIR



**Komal Punia**

# 7

AIR



**Aayushi Bansal**

# 8

AIR



**Raj Krishna Jha**

# 9

AIR



**Aditya Vikram Agarwal**

# 10

AIR



**Mayank Tripathi**

# 79

Selections

in TOP 100

in CSE 2023

# 1

AIR



**Aditya Srivastava**

# 2

AIR



**Animesh Pradhan**

# 5

AIR



**Ruhani**



### GMMR ENQUIRY & CLASSROOM CENTRE

33, Pusa Road,  
Near Karol Bagh Metro Station,  
Opposite Pillar No. 113,  
Delhi - 110005

DELHI

### MUKHERJEE NAGAR CENTER

Plot No. 857, Ground Floor,  
Mukherjee Nagar, Opposite Punjab  
& Sindh Bank, Mukherjee Nagar

### GTB NAGAR CENTER

Classroom & Enquiry Office,  
above Gate No. 2, GTB Nagar  
Metro Building, Delhi - 110009

### FOR DETAILED ENQUIRY

Please Call:  
+91 8468022022,  
+91 9019066066

enquiry@visionias.in

/c/VisionIASdelhi

/visionias.upsc

/vision\_ias

VisionIAS\_UPSC



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI