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DAILY CURRENT AFFAIRS DATED 15.02.2026

GS Paper II: Current Affairs

1. Urban Challenge Fund of ₹1 Lakh Crore – A New Phase in Urban Financing

a. Introduction: Urbanisation as an Economic Force

Urbanisation is one of the strongest drivers of economic transformation. In India, nearly one-third of the population currently lives in urban areas, and this share is expected to cross two-fifths in the coming decade. Cities are projected to generate more than two-thirds of national income in the coming years.

This growing economic centrality of cities requires a new model of urban infrastructure financing. Recognising this structural shift, the Union Cabinet has approved the Urban Challenge Fund of ₹1 lakh crore, first announced in the Union Budget 2025–26.

The fund aims to reposition Indian cities as engines of growth through a reform-linked, market-oriented financing framework rather than relying solely on traditional grants.

b. Objective of the Urban Challenge Fund

The Urban Challenge Fund seeks to create resilient, productive, and inclusive cities. Its goals extend beyond infrastructure construction to institutional reform and financial strengthening of Urban Local Bodies (ULBs).

Core Objectives

- Promote climate-responsive and sustainable infrastructure.
- Encourage market-based urban financing mechanisms.
- Strengthen financial capacity and creditworthiness of ULBs.
- Shift from grant-based funding to challenge-based, reform-linked financing.

This design aligns urban development with India's broader economic growth and fiscal reform strategy.

c. Key Features of the Fund

The total central allocation under the scheme is ₹1 lakh crore. However, the expected total project size is nearly ₹4 lakh crore, reflecting a leveraged financing model.

i. Financial Design

- The central government will provide up to one-fourth of the project cost.
- At least half of the funding must come from market borrowing.
- Remaining funds will be contributed by states and ULBs.
- The scheme will operate from 2025–26 to 2030–31 with possible extension.

ii. Competitive, Challenge-Based Approach

- Cities will compete for funding.
- Selection will be based on reform credentials and project viability.
- Funding will be linked to performance and institutional improvements.

A Credit Guarantee Support Mechanism of ₹5,000 crore has also been approved to reduce borrowing risks.

This structure indicates that the fund is not merely an infrastructure scheme but a structural reform in urban fiscal architecture.

d. Funding Structure: Leveraged and Reform-Oriented

The financing model represents a clear shift toward leveraged funding.

i. Composition of Funding

- Limited central share up to 25%.
- Major share from market borrowing — municipal bonds, bank loans, PPPs.
- Additional contributions from states and ULBs.

ii. Implications

- Reduces fiscal burden on the Union government.
- Encourages financial discipline in cities.
- Deepens municipal engagement with financial markets.
- Strengthens the municipal bond ecosystem.

Thus, the fund promotes fiscal responsibility and long-term financial sustainability.

e. Categories of Projects Supported

The Urban Challenge Fund supports three major categories of urban transformation.

i. Cities as Growth Hubs

- Improve urban mobility and connectivity.
- Integrate cities with industrial corridors.
- Develop economic clusters and investment-friendly infrastructure.

The goal is to enhance productivity and competitiveness.

ii. Creative Redevelopment

- Retrofitting of ageing infrastructure.
- Redevelopment of brownfield sites.
- Renewal of legacy urban areas.

Instead of expanding cities outward, the emphasis is on modernising existing urban spaces sustainably.

iii. Water and Sanitation Infrastructure

- Upgrading water supply systems.
- Expanding sewerage networks.
- Promoting sustainable water management.

This directly improves public health, environmental sustainability, and quality of life.

Together, these categories align with the broader goal of building sustainable and inclusive cities.

f. Credit Guarantee Mechanism

Many smaller cities struggle to access market finance due to weak credit profiles.

i. Key Features

- Credit Repayment Guarantee Scheme of ₹5,000 crore.
- Covers up to 70% of a loan subject to a specified cap.
- Special focus on North-Eastern states, hilly regions, and smaller towns.

ii. Significance

- Reduces risk perception among lenders.
- Encourages municipal bond issuance.
- Expands financial access to smaller cities.

This mechanism aims to broaden participation in urban market financing.

g. Significance of the Fund

i. Strengthening Urban Local Bodies

- Encourages better accounting and auditing systems.
- Promotes credit ratings and revenue reforms.
- Strengthens decentralisation under the 74th Constitutional Amendment.

ii. Economic Growth Multiplier

- Urban infrastructure creates construction employment.
- Improves productivity and reduces transaction costs.
- Attracts private investment.
- Stimulates service-sector growth.

Efficient cities contribute directly to national economic expansion.

iii. Climate-Responsive Urbanisation

- Supports sustainable water systems.
- Encourages climate-resilient infrastructure.
- Aligns with India's climate commitments and long-term sustainability goals.

iv. Market-Based Urban Financing Reform

Earlier urban schemes were largely grant-driven. This fund promotes:

- Competitive allocation of funds.
- Reform-linked incentives.
- Greater private sector participation.

It marks a shift toward performance-based urban governance.

h. Challenges in Implementation

Despite its transformative intent, several structural challenges exist.

- Weak financial management systems in many ULBs.
- Low property tax collection efficiency.
- Limited experience with municipal bonds outside major cities.
- Poor credit ratings of smaller municipalities.
- Risk of regional disparities if larger cities benefit disproportionately.
- Potential fiscal stress if borrowing is not managed prudently.

These constraints may affect equitable and effective implementation.

i. Way Forward

To ensure success, multiple reforms are necessary.

i. Strengthening Municipal Finance

- Modernise accounting systems.
- Improve property tax administration.
- Standardise financial reporting practices.

ii. Capacity Building

- Train officials in financial management and project structuring.
- Develop expertise in public-private partnership frameworks.
- Institutionalise long-term municipal governance reforms.

iii. Enhancing Accountability

- Promote citizen participation in planning.
- Ensure transparency in borrowing and spending.
- Integrate climate adaptation strategies into all infrastructure projects.

These steps can ensure that increased borrowing translates into sustainable urban growth.

Conclusion

The Urban Challenge Fund represents a structural transformation in India's approach to urban financing. By leveraging market resources and linking funding to institutional reforms, it seeks to convert cities into engines of sustainable and inclusive economic growth.

If supported by strong governance reforms, fiscal discipline, and capacity-building measures, the scheme can deepen cooperative federalism, empower Urban Local Bodies, promote climate-resilient infrastructure, and accelerate India's transition toward a more developed and resilient urban future.

GS Paper III: Environment

2. India's Power Sector Transition Towards 2070

a. Introduction

India's goal of becoming a developed nation by 2047 and achieving net zero emissions by 2070 requires a deep transformation of its power sector. Electricity is the backbone of economic growth. Industrial production, digital services, electric vehicles, urban infrastructure, and green hydrogen all depend on reliable and affordable power.

At present, coal dominates electricity generation. However, over the next five decades, India's electricity mix is expected to gradually shift toward renewable sources such as solar and wind, supported by nuclear energy and large-scale storage systems.

This transition is not only about climate change. It is equally about energy security, economic stability, technological self-reliance, and long-term strategic autonomy.

b. Present Structure of India's Power Sector

India's installed electricity capacity in the mid-2020s is slightly above 500 gigawatts (GW).

i. Composition of Installed Capacity

- Nearly half of installed capacity comes from renewable sources — solar, wind, hydro.
- Fossil fuels account for slightly less than half.
- Nuclear power contributes a small share.

However, installed capacity is different from actual electricity generation.

ii. Capacity vs Generation

Capacity means the maximum possible output if a plant runs continuously.
Generation refers to the actual electricity produced over time.

Although renewables account for nearly half of installed capacity, coal produces nearly three-fourths of actual electricity. Renewables contribute roughly one-fifth of total generation.

This gap arises due to structural and technical factors within the power system.

c. Why Coal Continues to Dominate

Coal remains central to India's electricity system for three main reasons.

i. High Capacity Utilisation

Capacity Utilisation Factor (CUF) refers to the percentage of time a plant actually generates electricity compared to its maximum capacity.

- Coal plants operate continuously and have high CUF.
- Solar panels generate only during daylight.
- Wind turbines operate depending on wind conditions.

Thus, coal provides more consistent electricity output.

ii. Intermittency of Renewable Energy

Renewable sources are variable.

- Solar generation stops at night and fluctuates during cloudy weather.
- Wind generation varies seasonally and regionally.

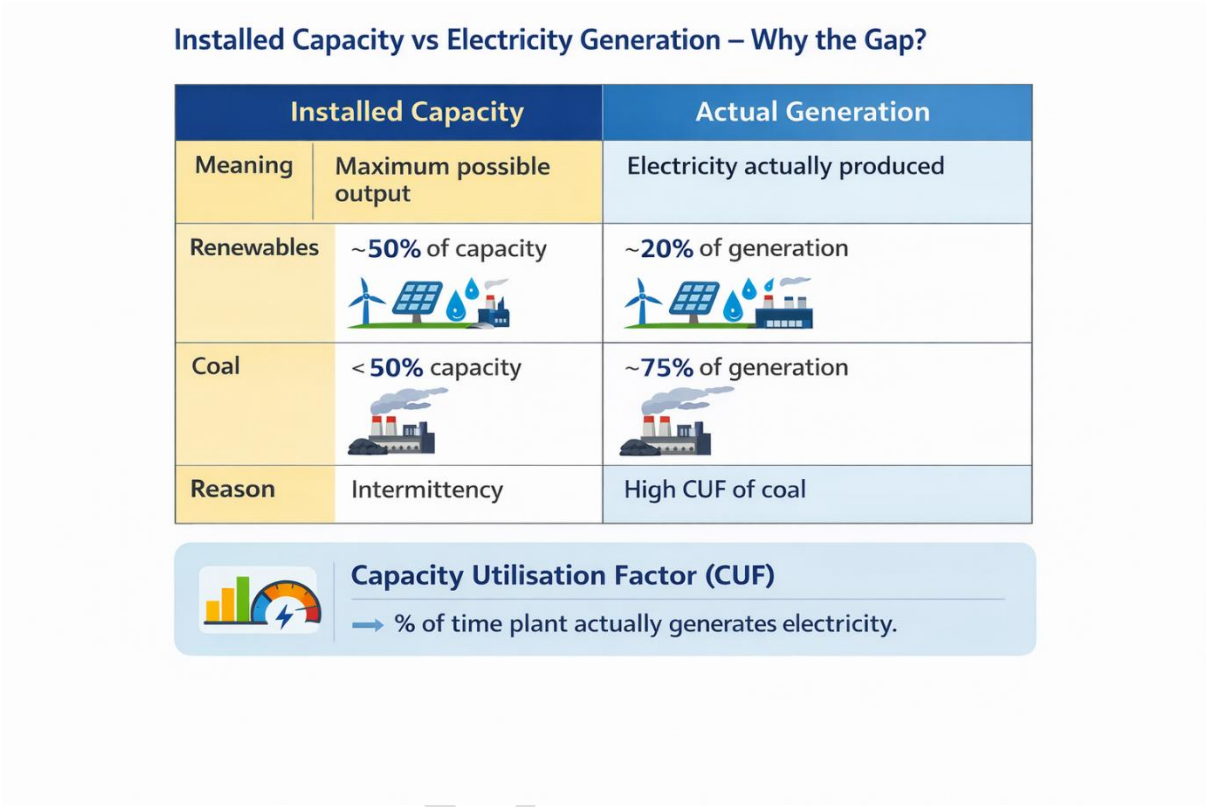
Electricity supply and demand must be balanced at every second. Sudden drops in renewable output require backup sources. Currently, coal plants provide this balancing support.

iii. Grid and Transmission Constraints

- Transmission infrastructure is still expanding.
- Renewable power is sometimes curtailed due to limited transmission capacity.
- Thermal plants provide grid stability and system inertia, which renewables alone cannot yet fully supply.

For these reasons, coal continues to provide base-load power, meaning continuous electricity required to meet minimum demand.

However, this structure is expected to change gradually over time.



d. Long-Term Projections Towards 2070

India's electricity mix will depend on policy ambition and technological progress. Two broad pathways can be considered.

i. Continuation of Current Policies

- Renewable energy could provide more than four-fifths of electricity generation by 2070.
- Coal's share would decline significantly but may not disappear completely.
- Nuclear power would expand moderately and provide stable supply.

ii. Accelerated Net Zero Path

- Coal-based generation could decline to negligible levels by 2070.
- Renewable energy would dominate the system.
- Nuclear capacity would expand substantially.
- Large-scale storage systems would become essential.

This pathway requires massive investment, technological advancement, and strong institutional coordination.

As coal declines, other stable sources of power become increasingly important.

e. The Strategic Role of Nuclear Energy

Nuclear energy is expected to play a crucial role in long-term decarbonisation.

i. Advantages of Nuclear Power

- Provides firm and continuous electricity supply.
- Generates power without carbon emissions during operation.
- Stabilises grids with high renewable penetration.

In a renewable-dominated system, nuclear plants act as reliable anchors.

ii. Expansion Prospects

India's current nuclear capacity is modest. However:

- Long-term projections indicate significant expansion by 2070.
- Small Modular Reactors (SMRs) may become part of the strategy.
- Advanced reactor designs may improve safety and efficiency.

Beyond electricity, nuclear energy may support green hydrogen production and industrial heat applications, which are otherwise difficult to decarbonise.

However, renewable dominance cannot be achieved without storage.

f. Energy Storage: The Enabler of Renewable Dominance

As renewable share increases, storage becomes indispensable. Storage absorbs excess electricity during high generation and releases it when supply falls short.

i. Battery Energy Storage Systems

- Store electricity chemically.
- Useful for short-duration balancing e.g., storing daytime solar for evening use.
- Expected to become more affordable as technology costs decline.

ii. Pumped Storage Plants

- Use gravitational energy through water reservoirs.
- Suitable for large-scale and long-duration storage.
- Provide grid stability and peak demand support.

Massive expansion of storage capacity is necessary for high renewable penetration.

Without storage, renewable dominance could destabilise the grid.

g. Key Challenges in the Transition

The transition to a low-carbon electricity system faces multiple structural challenges.

- High capital cost and safety concerns in nuclear expansion.
- Technological and financial demands of large-scale storage.
- Land acquisition issues for renewable projects.
- Need for expansion of transmission networks through green energy corridors.
- Weak financial health of distribution companies (DISCOMs).
- Economic risks for coal-dependent regions requiring a just transition.

Unless these issues are addressed, the transition may remain uneven.

Despite these challenges, the broader significance of the transition is substantial.

h. Broader Significance of the Transition

i. Climate Responsibility

Reducing coal dependence lowers carbon intensity and strengthens India's position in global climate negotiations.

ii. Energy Security

Greater reliance on domestic renewable resources reduces fossil fuel imports and protects against global price volatility.

iii. Economic Transformation

The transition promotes:

- Solar manufacturing and battery production.
- Electric mobility and green hydrogen industries.
- Employment in emerging clean energy sectors.

iv. Strategic Autonomy

Expanding nuclear and renewable ecosystems reduces external vulnerabilities and enhances long-term energy sovereignty.

Thus, the energy transition is central to both economic and strategic objectives.

i. Way Forward

To ensure a smooth transition:

- Expand green energy corridors and modernise transmission networks.
- Invest in advanced storage systems and domestic battery manufacturing.
- Expand nuclear capacity with strict safety standards and transparency.
- Reform DISCOMs to improve financial viability.
- Implement a just transition strategy for coal-dependent regions through reskilling and economic diversification.

These reforms must proceed in a coordinated and phased manner.

Conclusion

India's power sector is entering a transformative phase. Over the next five decades, renewable energy is likely to become the dominant source of electricity. However, renewable dominance alone is insufficient for system stability.

Nuclear energy and large-scale storage systems will be essential to ensure reliability and grid balance. Coal's role will gradually decline, but the pace will depend on technological progress, financial capacity, and institutional reform.

The success of this transition will determine whether India can simultaneously achieve climate responsibility, energy security, economic growth, and the broader vision of Viksit Bharat by mid-century and net zero by 2070.

GS Paper III: Science and Technology

3. Artificial Intelligence Labelling and Takedown Rules under the Information Technology (Amendment) Rules, 2026

a. Introduction

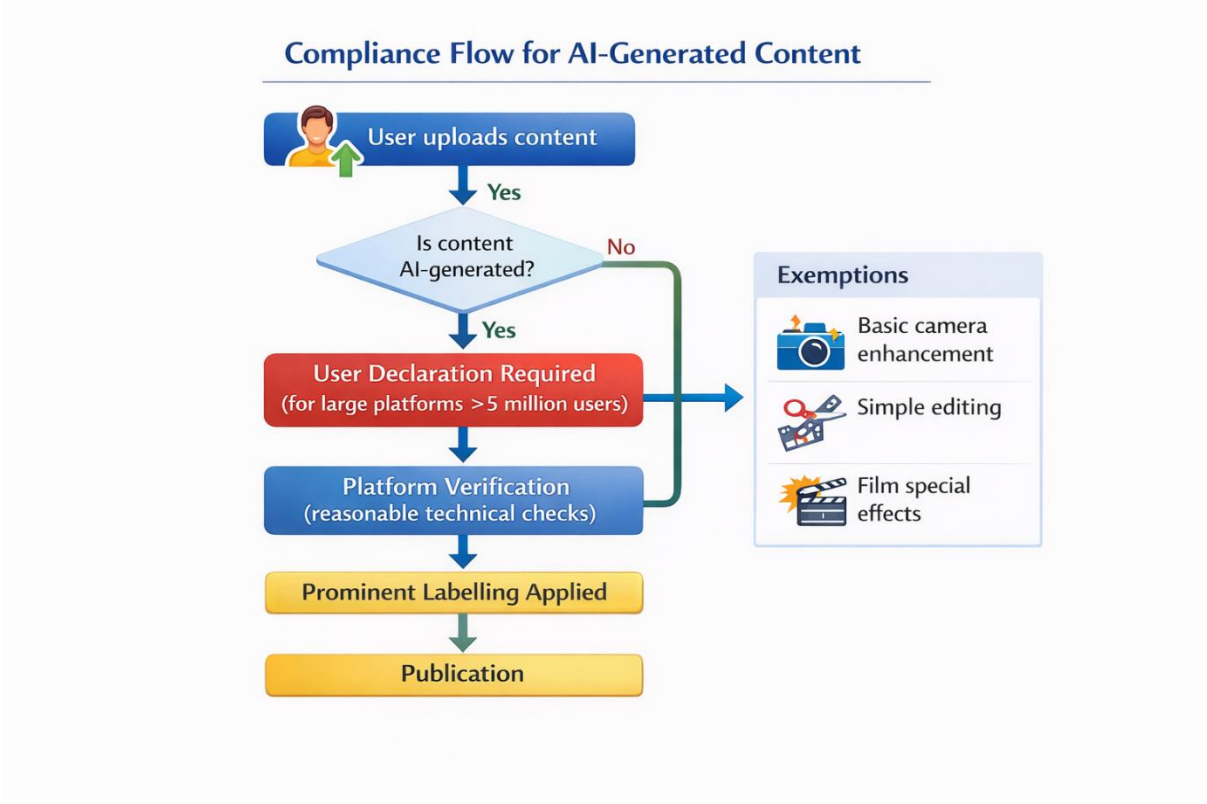
Artificial Intelligence (AI) tools today can generate highly realistic images, videos, voice recordings, and text. While these tools support innovation and creativity, they also raise serious concerns such as misinformation, deepfakes, privacy violations, reputational harm, and threats to national security.

To address these risks, the Ministry of Electronics and Information Technology amended the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 through the Information Technology (Amendment) Rules, 2026, effective from February 20.

The amendment introduces two major regulatory changes:

- Mandatory labelling of AI-generated content.
- Stricter timelines for removal (takedown) of unlawful content.

The objective is to balance innovation with accountability and strengthen public trust in the digital ecosystem.



b. Mandatory Labelling of Artificial Intelligence-Generated Content

i. Concept of Synthetically Generated Information

The amended rules introduce the term "synthetically generated information." This refers to content created or significantly modified using AI tools, especially audiovisual material such as images, videos, and voice recordings.

Under the new rules:

- Social media platforms must prominently label AI-generated content.
- Users should be able to distinguish authentic content from AI-manipulated material.

The purpose of labelling is transparency. It protects the citizen's right to know whether the content they are viewing is real or artificially created.

ii. Applicability to Large Platforms

Platforms with more than five million users face stricter obligations.

- They must obtain a declaration from users when content is AI-generated.
- They must undertake reasonable technical verification before publication.

This differentiated approach is based on the principle of proportional responsibility. Larger platforms have wider reach and therefore carry greater responsibility.

iii. Exemptions to Prevent Overregulation

The rules do not treat all digitally edited content as AI-regulated material.

- Basic smartphone camera enhancements are excluded.
- Simple photo editing is not covered.
- Film special effects are exempt.

This prevents unnecessary regulatory burden on ordinary digital practices.

iv. Prohibited AI-Generated Content

Certain types of AI-generated content are completely prohibited:

- Child sexual abuse material.
- Forged documents.
- Deepfakes falsely impersonating real persons.
- Content facilitating violence or explosives manufacturing.

These prohibitions protect public order, sovereignty, and human dignity.

c. Detection and Technical Compliance

The rules require platforms to deploy reasonable and appropriate technological measures for compliance.

Platform Obligations

- Develop systems capable of detecting synthetic content.
- Implement labelling mechanisms.
- Maintain traceability and accountability measures.

Although the government does not prescribe specific technologies, platforms are encouraged to use:

- Metadata tagging.
- Digital watermarks.
- Provenance mechanisms to track content origin.

The regulatory model focuses on outcomes (effective detection and labelling) rather than prescribing exact technical tools.

This allows flexibility while maintaining accountability.

d. Stricter Takedown Timelines

One of the most significant changes is the reduction in takedown timelines.

i. Earlier Framework

Previously:

- Platforms had 24–36 hours to remove unlawful content.
- Sensitive grievances could take up to 72 hours.

ii. Revised Framework

Under the 2026 amendment:

- Certain categories of harmful content must be removed within 2–3 hours.
- Grievance redressal timelines have been shortened.

The rationale is digital virality. Harmful content can spread widely within minutes, causing irreversible damage.

The faster timeline applies to content involving:

- Misinformation.
- Threats to sovereignty and public order.
- Obscenity and unlawful material.

The objective is to reduce harm before it escalates.

e. Legal Basis of the Amendment

The rules are framed under the Information Technology Act, 2000, which governs intermediary obligations.

While separate from AI regulation, the Digital Personal Data Protection Act, 2023 complements the framework by strengthening privacy protections.

Thus, the amendment represents an evolution of existing law rather than a completely new statute.

f. Significance of the Reform

i. Combating Deepfakes

Deepfakes can:

- Damage reputations.
- Mislead voters.
- Incite violence.
- Threaten national security.

Mandatory labelling reduces the risk of deception.

ii. Protecting Democratic Processes

Transparent identification of synthetic content:

- Supports informed public discourse.
- Reduces manipulation during elections.
- Enhances trust in institutions.

iii. Strengthening Intermediary Accountability

The amendment shifts the regulatory model from passive hosting to proactive responsibility.

Large platforms must:

- Improve detection systems.
- Act swiftly on grievances.
- Demonstrate compliance transparency.

iv. Ethical Dimensions

The rules reflect key ethical principles:

- Transparency – through labelling of AI content.

- Accountability – through strict compliance timelines.
- Responsibility – platform duty of care.
- Protection of human dignity – prohibition of harmful deepfakes.

Thus, governance objectives are integrated with moral considerations.

g. Concerns and Implementation Challenges

Despite their objectives, several concerns arise.

- Short takedown timelines may encourage over-censorship.
- Highly sophisticated deepfakes are difficult to detect.
- Freedom of speech under Article 19 must be safeguarded.
- Smaller platforms may face high compliance costs.
- Risk of misuse of takedown powers without adequate safeguards.

Balancing regulation and constitutional freedoms remains delicate.

h. Way Forward

Effective implementation requires a balanced and risk-based approach.

- Focus regulatory intensity on high-impact harms.
- Invest in advanced AI forensic and detection tools.
- Promote international cooperation due to cross-border platforms.
- Establish independent oversight mechanisms.
- Ensure transparent reporting of takedown actions.

Clear procedural safeguards will strengthen legitimacy and public trust.

Conclusion

The Information Technology (Amendment) Rules, 2026 represent a significant development in India's digital governance framework. By mandating labelling of AI-generated content and reducing takedown timelines, the government seeks to enhance transparency, reduce misinformation, and safeguard national interests.

However, long-term success depends on careful implementation. Innovation must not be stifled, and freedom of expression must remain protected. A balanced, transparent, and accountable regulatory approach will determine whether India can build a responsible AI ecosystem suited to the demands of the digital age.

Reader's Note — About This Current Affairs Compilation

Dear Aspirant,

This document is part of the PrepAlpine Current Affairs Series — designed to bring clarity, structure, and precision to your daily UPSC learning.

While every effort has been made to balance depth with brevity, please keep the following in mind:

1. Orientation & Purpose

This compilation is curated primarily from the UPSC Mains perspective — with emphasis on conceptual clarity, analytical depth, and interlinkages across GS papers.

However, the PrepAlpine team is simultaneously developing a dedicated Prelims-focused Current Affairs Series, designed for:

- factual coverage
- data recall
- Prelims-style MCQs
- objective pattern analysis

This Prelims Edition will be released separately as a standalone publication.

2. Content Length

Some sections may feel shorter or longer depending on topic relevance and news density.
To fit your personal preference, you may freely resize or summarize sections using any LLM tool (ChatGPT, Gemini, Claude, etc.) at your convenience.

3. Format Flexibility

The formatting combines:

- paragraphs
- lists
- tables
- visual cues

—all optimised for retention.

If you prefer a specific style (lists → paras, paras → tables, etc.), feel free to convert using any free LLM.

4. Monthly Current Affairs Release

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