

#RiseWithRICE

RICE IAS

EXPECTED

MAINS TOPIC

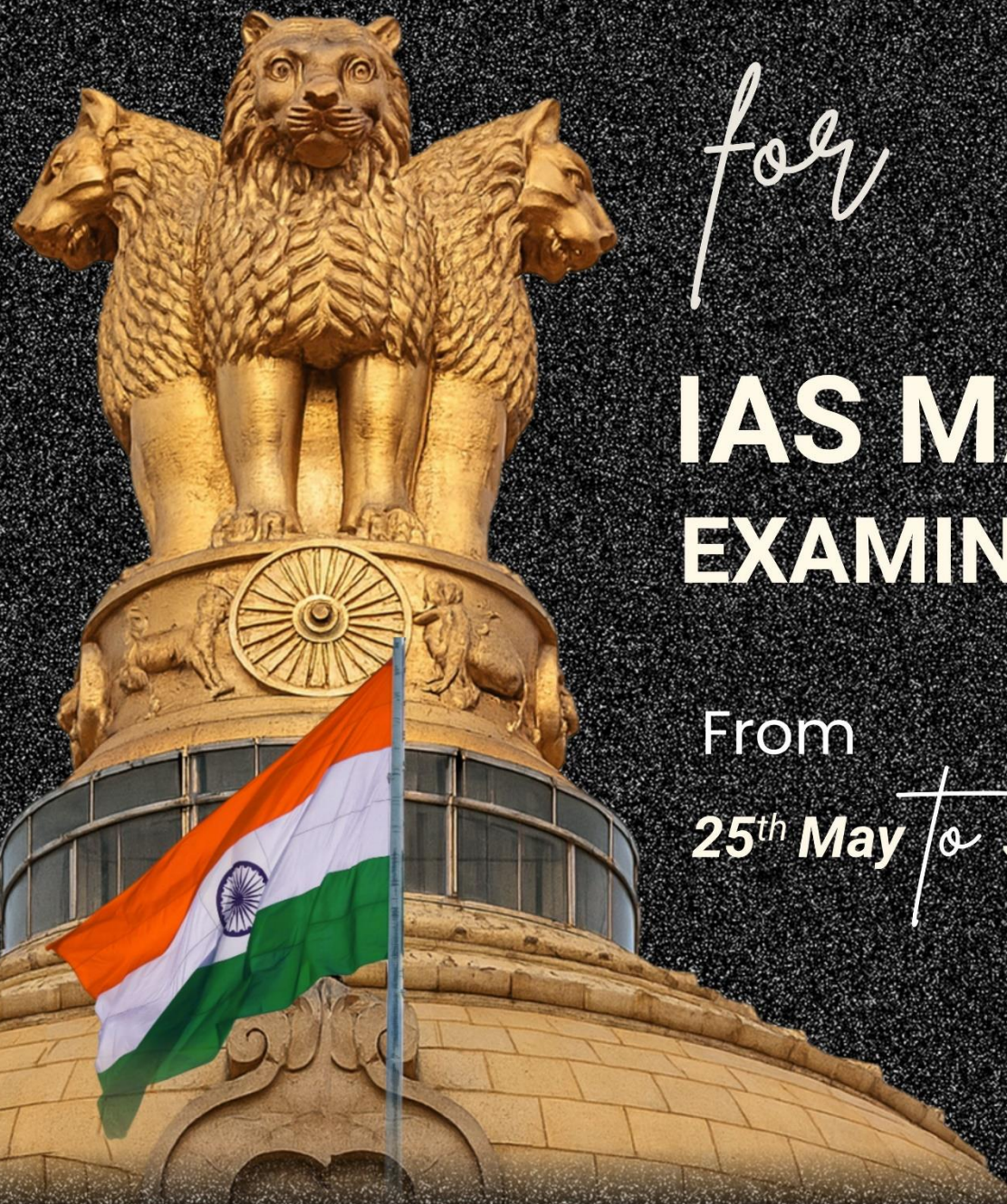
DEEP ANALYSIS

for

**IAS MAINS
EXAMINATION**

From

25th May *to* 30th May 2026



INDEX

1. GENERAL STUDIES 2	01
1.1. POLITY & GOVERNANCE	01
1.1.1. Complete Justice and Article 142 of the Indian Constitution	01
1.1.2. Borderland Dynamics, Linguistic Minorities, and Inclusive Federalism	03
1.1.3. Sedition Law, Judicial Response and Constitutional Concerns	05
1.1.4. India's Peri-Urban Water & Sanitation Crisis	07
2. GENERAL STUDIES 3	10
2.1. ENVIRONMENT	10
2.1.1. Heatwaves in India: Beyond Climate Change, The Urban Heat Challenge	10
2.2. INTERNAL SECURITY	13
2.2.1. AI-Generated Content, Misinformation and Need for Regulation in India	13

Scan to know more about our courses...



IAS 2-Year GS PCM



IAS 10-Month GS PCM



Degree + IAS



Prelims Test Series

GENERAL STUDIES 2

1.1. POLITY & GOVERNANCE

1.1.1. COMPLETE JUSTICE AND ARTICLE 142 OF THE INDIAN CONSTITUTION

Context:

The Right to Life under Article 21 of the Indian Constitution has been progressively expanded by the Supreme Court of India to include various dimensions of dignified human existence. In a recent judgment, *Phalodi Accident vs National Highways Authority of India (2025)* the Supreme Court recognised the **Right to Safe Travel on National Highways** as a Fundamental Right under Article 21. This judgment reflects the growing importance of **Article 142**, which empowers the Supreme Court to deliver "complete justice".



The Grim Reality of Road Safety in India

The judgment highlights a severe disproportion between infrastructure scale and public safety:

- **The Disparity:** National Highways (NH) comprise only **2%** of India's total road network but account for **30%** of all road fatalities.
- **The Data:** In the first six months of 2025 alone, NHs witnessed approximately **26,770 deaths**. While this represented an 11% decrease compared to 2024, the absolute numbers remain alarmingly high.
- **State Policy Goal:** The government aims to reduce road accidents by **50% by 2030** using a **"4E" Strategy**:
 - Education
 - Engineering (both road infrastructure and vehicle safety)
 - Enforcement
 - Emergency Medical Services

Core Concept: Article 142 and "Complete Justice"

A. Nature of the Power

- **Constitutional Safety Valve:** Article 142 empowers the SC to pass any decree or order necessary for doing "complete justice" in any cause or matter pending before it. It acts as a mechanism to fill legal vacuums where statutory law is silent or inadequate.
- **Residuary and Extraordinary:** This jurisdiction is implicitly vested with trust. It allows the court to transcend strict procedural and statutory constraints to prevent a travesty of justice or an abuse of process.

B. Legal and Substantive Evolution

- **Delhi Judicial Service Association vs. State of Gujarat (1991):** The SC held that the power to do complete justice exists at an entirely different level and quality. Statutory restrictions in ordinary laws cannot limit this constitutional power.

- **Canara Bank vs. Debasis Das (2003):** The Court observed that the Constitution prioritizes **substantive justice** (the actual removal of injustices) over mere technical legal justice. Where statutory law falls short, the principles of **natural justice (fairness)** must prevail.
- **Hitesh Bhatnagar vs. Deepa Bhatnagar (2011):** The Court explicitly recognized the weight of this power, noting that **extraordinary care and caution** must be observed when invoking Article 142.

Comparative Jurisprudence: Supreme Court vs. High Courts

Can High Courts also deliver "complete justice"?

- **Anil Kumar Jain vs. Maya Jain (2009):** The SC clarified that the extraordinary powers of High Courts under **Article 226** are **not at par** with the Supreme Court's absolute powers under Article 142.
- **The Nuance:** While justice as a philosophical concept must always be "complete," the High Courts must operate within a more **circumscribed manner**. Article 142 remains a unique tool uniquely optimized for the SC to apply "**due process of law**" to rapidly changing socio-economic and political realities.

Critical Analysis: The Debate on Judicial Overreach

- **Undermines Separation of Powers:** Excessive use of Article 142 allows the judiciary to run parallel administration, encroaching upon the defined domains of the Executive and Legislature.
- **Creates Legal Unpredictability:** Bypassing established statutory laws on a case-by-case basis compromises legal certainty, creating an unpredictable and inconsistent environment for governance.
- **Fills Critical Governance Vacuums:** Proponents argue it acts as a vital constitutional safety valve to deliver substantive justice when statutory laws are silent or inadequate.
- **Adapts to Evolving Social Realities:** It empowers the Supreme Court to rapidly protect fundamental rights amidst emerging societal shifts (e.g., live-in relationships, LGBTQ+ rights) before the legislature acts.
- **Risks Institutional Backlash:** Frequent policy-making by the courts can lead to institutional friction, friction that is best avoided by maintaining strict judicial self-restraint as a rule of last resort.

Way Forward

- **Institutionalize Judicial Self-Restraint:** The Supreme Court should invoke Article 142 only as a weapon of last resort to fill clear legislative vacuums, ensuring it maintains the institutional balance of Separation of Powers.
- **Transition from Ad-Hoc Directives to Structured Policy:** The Executive must proactively convert judicial directives into permanent statutory rules, ensuring that long-term safety goals do not rely solely on court monitoring.
- **Strengthen Inter-Agency Enforcement Infrastructure:** State governments must aggressively implement the "4E" strategy (Education, Engineering, Enforcement, Emergency Care) by establishing a unified National Road Safety Authority for strict accountability.

- **Establish Strict Time-Bound Grievance Redressal:** A robust, independent mechanism must be set up to penalize concessionaires and highway authorities for poor engineering and sub-standard road maintenance that leads to accidents.
- **Harmonize Lower Courts with Higher Judicial Principles:** While High Courts lack Article 142 powers, they should aggressively use their Article 226 jurisdiction to enforce the newly recognized "Right to Safe Travel" at regional and state highway levels.

Conclusion

While **Article 142** acts as a vital **safety valve for substantive justice**, the state must proactively implement the **"4E" strategy** to secure the Right to Safe Travel, balancing judicial intervention with robust executive accountability.

Q. "Article 142 of the Indian Constitution acts as a constitutional safety valve to ensure complete justice." Discuss the significance of Article 142 in the Indian judicial system. Also examine the concerns regarding judicial overreach associated with its use. (15 Marks)

1.1.2. BORDERLAND DYNAMICS, LINGUISTIC MINORITIES, AND INCLUSIVE FEDERALISM

Context:

Elections in a multicultural, federal polity serve as a crucial vehicle for marginalized narratives and subterranean identities to find expression. A study of Kerala's border regions **Manjeshwar (Kasaragod district)** in the north and **Idukki** in the east highlights how democracy thrives on plurality yet reveals how borderlands often remain policy blind spots.



Key Issues Facing Borderland Communities

- **Peripheral Developmental Blind Spot:** These regions suffer from a severe deficit in physical infrastructure, quality employment, and premier educational institutions due to their geographical distance from state capitals.
- **Critical Healthcare Vulnerability:** A lack of tertiary-care medical facilities forces residents to depend heavily on neighboring states, a vulnerability exposed during sudden crisis-driven border closures.
- **The Identity Paradox:** Populations often grapple with a dual identity where their official state administrative citizenship clashes with their deeper cross-border linguistic and cultural roots.
- **Linguistic Policy Anxiety:** State-level mandates promoting the dominant regional language frequently trigger deep anxieties regarding the dilution of minority cultural moorings and local scripts.
- **Resource and Land Marginalization:** Migrant or linguistic minorities working in border economic sectors (like plantations) face systemic landlessness and administrative bottlenecks in land allocation.

Historical and Political Significance

- **Democratic Safety Valve:** Elections act as a crucial platform where subterranean identity anxieties find a peaceful, institutional register rather than boiling over into conflict.
- **Unique Electoral Articulation:** Political campaigning naturally adapts to local demographic realities, leading to unique bilingual political spaces (like campaigning in Kannada or Tamil within Kerala).
- **Deep-Rooted Identity Politics:** The political assertion of border identities is structurally embedded in history, dating back to the first-ever 1957 elections where pro-linguistic minority candidates found mainstream backing.
- **Test of Institutional Accommodation:** The absence of radical balkanization or secessionist movements proves that a democratic state's broad policy embrace can successfully defuse borderland friction.
- **Post-Election Policy Amnesia:** Despite receiving intense media and political attention during campaigns, the unique developmental and cultural plight of these communities is routinely ignored once the frenzy dies down.

Government Initiatives

- **Vibrant Villages Programme (VVP):** A centrally sponsored scheme designed to comprehensively develop infrastructure, livelihood opportunities, and connectivity in selected border villages to prevent migration.
- **Border Area Development Programme (BADP):** A critical security-linked initiative implemented by the Ministry of Home Affairs to meet the special developmental needs of people living in remote areas near international borders.
- **Constitutional Safeguards (Articles 350A & 350B):** Statutory protections mandating facilities for instruction in mother-tongue at the primary stage and establishing a Special Officer for Linguistic Minorities to defend minority rights.
- **Inter-State and Zonal Councils:** Constitutional and statutory platforms (Article 263) utilized to enhance cooperative federalism, resolve boundary disputes, and coordinate socio-economic policies between neighboring states.

Way Forward

- **Asymmetric Border Area Development:** State planners must shift from uniform policies to region-specific blueprints that build local tertiary hospitals, schools, and infrastructure to eliminate cross-border dependency.
- **Strengthening Inter-State Institutional Ties:** Institutional mechanisms like **Zonal Councils** must be revitalized to prevent friction and ensure unhindered cross-border access to emergency healthcare and education.
- **Robust Linguistic Safeguards:** State governments must strictly implement constitutional protections (like Article 350A) to ensure administrative and educational materials are accessible in minority languages.
- **Targeted Land and Economic Reforms:** Administrative bottlenecks must be cleared to fast-track land allocation and secure land tenure for marginalized minority laborers in border sectors like plantations.

- **Sustained Policy Engagement:** Governance must move away from transactional "post-election amnesia" and transition into a continuous, data-driven approach that integrates borderland communities into mainstream economic growth.

Conclusion

To achieve **inclusive federalism**, India must transition from peripheral neglect to **pro-active border-governance**. Integrating these vibrant enclaves through **inter-state coordination** and **linguistic safeguards** will strengthen **democratic plurality** and ensure sustainable, **holistic national integration**.

Q. Discuss the challenges faced by linguistic and cultural minorities residing in India's border regions. How can cooperative federalism and inclusive governance help address their concerns? (15 Marks)

1.1.3. SEDITION LAW, JUDICIAL RESPONSE AND CONSTITUTIONAL CONCERNS

Context:

The offence of sedition, earlier codified under Section 124A of the Indian Penal Code (IPC), has historically been used by the Indian state to suppress dissent and criticism against the government. In 2024, the provision was effectively replaced by Section 152 of the Bharatiya Nyaya Sanhita (BNS), raising concerns that sedition survives under a new legal framework.



Background of Sedition Law

Colonial Origin

- Sedition law was introduced by the **British colonial government** to suppress nationalist movements.
- Prominent freedom fighters like **Bal Gangadhar Tilak and Mahatma Gandhi** were prosecuted under it.
- **Gandhi** described sedition as the "**prince among the political sections of the IPC**".

Constitutional Status of Sedition Law

Article 19(1)(a)

- Guarantees **freedom of speech and expression**.

Article 19(2)

- Permits reasonable restrictions in the interests of:
 - Sovereignty and integrity of India
 - Security of the state
 - Public order
 - Incitement to offence

Judicial Interpretation

In **Kedar Nath Singh vs State of Bihar**, the Supreme Court upheld sedition law but restricted its application only to:

- Incitement to violence
- Public disorder
- Threat to state security

Bharatiya Nyaya Sanhita (BNS), 2024

Section 152 of BNS

- Replaced Section 124A IPC.
- Criminalises acts endangering:
 - Sovereignty
 - Unity
 - Integrity of India

Concerns

- Broad and vague wording.
- Fear that sedition has merely been renamed.
- Minimum punishment increased to 7 years.

Major Issues and Criticism of Sedition Law

- **Forced Choice for the Poor:** Trapped prisoners are forced to "agree" to a trial under an unfair law just to avoid sitting in jail indefinitely waiting for a final decision.
- **Wealth vs. Justice:** Richer individuals can afford expensive lawyers to get bail and wait outside, while poorer people are stuck inside, making freedom depend on money rather than fair rules.
- **Jail Becomes the Rule:** The court's new order goes against its own standard principle that "bail should be the rule and jail the exception" by not automatically offering bail to those facing trial.
- **Weapon for the State:** By keeping the law in a confusing legal limbo, bad-faith government actors are given a free pass to use endless delays as a tool to lock up critics.
- **Judicial Shifting of Burden:** Instead of doing its duty to decide once and for all if this law violates free speech, the Supreme Court has passed the heavy burden of dealing with it onto the accused.

Way Forward

- **Decide Once and for All:** The Supreme Court needs to stop delaying and make a clear, final decision on whether criminalizing dissent is constitutional.
- **Give Bail Automatically:** Anyone being tried under this contested law should be given automatic bail so that they do not have to wait out the trial inside a prison.
- **Provide Strong Free Lawyers:** The government must give poor prisoners excellent, free legal help so they cannot be pressured or tricked into accepting unfair trials.
- **Stop the New Version (BNS):** Parliament needs to review Section 152 of the new law to ensure it isn't just using a new name to lock up people for peaceful criticism.
- **Punish Bad-Faith Actions:** Clear penalties should be introduced for police officers or state actors who intentionally use these laws to wrongfully silence citizens.

Conclusion

To safeguard **Article 19(1)(a)**, the judiciary must decisively eliminate colonial-era remnants. Embracing a rigid '**bail is the rule**' doctrine will prevent executive weaponization, ensuring India's democratic progression balances **national security** with vibrant, unimpeded **civil liberties**.

Q. "The replacement of sedition law under Section 124A IPC with Section 152 of the Bharatiya Nyaya Sanhita raises significant constitutional and democratic concerns." Discuss in the light of recent Supreme Court observations on free speech and civil liberties. 15 Marks

1.1.4. INDIA'S PERI-URBAN WATER & SANITATION CRISIS

Context:

India has made significant progress in water access through initiatives such as the Jal Jeevan Mission, which has expanded tap water connectivity in rural areas. However, a major governance gap exists in **peri-urban areas** transitional zones between rural and urban regions. These regions face severe challenges related to water supply, sanitation, governance, and environmental sustainability.



Significance of addressing Peri-Urban Water & Sanitation Crisis of India

- **Secures Future Cities:** It ensures that today's rapidly growing city borders don't turn into tomorrow's permanent slums, building a planned and liveable *Viksit Bharat* by 2047.
- **Boosts Economic Growth:** It protects the economic dynamism of peri-urban zones where new factories and startups are emerging by providing stable water and sanitation.
- **Prevents Health Crises:** Proper waste and septage management stop the toxic pollution of groundwater, protecting millions of citizens from severe water-borne diseases.
- **Ensures Social Justice:** It prevents rural and fringe areas from becoming "zones of sacrifice," ensuring downstream farmers do not lose their livelihoods to thirsty core cities.
- **Fulfills Climate Resilience:** Scaling up decentralized water recycling helps India fight climate change by securing local water sources against erratic and heavy rainfall.

The Core Issue: The "Missing Middle" (Peri-Urban Crisis)

- **Rapid, Unplanned Urbanization:** Over the last two decades, the number of Census Towns (settlements that are urban in character but lack urban local bodies) jumped from **1,362 to 3,784 (a 178% increase)**.
- **Institutional Limbo:** These zones are no longer villages, but are not yet recognized or administered as cities, leaving them completely out of structured urban planning.
- **The 2047 Horizon:** By 2047, India will need **230 million new housing units** and **500 new cities**. Today's neglected peri-urban fringe is tomorrow's city center.

Key Challenges in Peri-Urban Water and Sanitation

A. Governance & Service Delivery Gaps

- **Abolition of Rural Frameworks without Urban Capacity:** When rural governance is abolished, peri-urban areas are often absorbed into inefficient municipal corporations.
 - Impact: Residents face **urban costs without urban services**.
- **Supply Disruptions:** Water pipelines often provide irregular, highly constrained supply (e.g., alternate days, odd night hours), forcing residents to sacrifice sleep and fall prey to exploitative private water tankers.

B. Environmental Degradation & "Zones of Sacrifice"

- **Resource Stripping:** Thirsty, expanding core cities actively siphon resources away from surrounding peri-urban/rural zones.
- **Groundwater Pollution:** Lack of solid and liquid waste management leads to toxic leachate from garbage dumps filtering into and poisoning local groundwater.

C. The Sanitation Failure (The Underbelly of SBM)

- **On-Site Sanitation Pitfalls:** Nearly **40 million urban/semi-urban households** rely on on-site systems like septic tanks.
- **Unregulated Desludging:** Desludging is highly irregular and illegal dumping of untreated septage into open fields and water bodies is rampant.
 - The "Undo" Effect: A single 5,000-liter waste tanker illegally discharged into the open completely nullifies the hard-earned public health gains of thousands of constructed toilets.

Way Forward- Five-Point Action Plan

I. Institutional & Governance Reform

- **Constitutional Compliance:** State governments must formally constitute **Nagar Panchayats** for all Census Towns, as mandated by the **74th Constitutional Amendment Act**.
- **Capacity Building:** Legal reclassification must be immediately supported by financial and administrative functional capacity.

II. Securing Water Sources at Origin

- **Source Sustainability:** Shift focus from merely providing tap connections to ensuring the longevity of water sources.
- **Catchment Protection:** Prevent illegal encroachments, stop solid waste dumping near aquifers, and institutionalize community-driven sanitary inspections.

III. Launching Swachh Bharat Mission (SBM) 3.0

- **Peri-Urban & Septage Focus:** SBM 3.0 should be launched under the Ministry of Jal Shakti, leveraging rural employment schemes (MGNREGS) to manage fecal sludge.
- **Targeted Infrastructure:**
 - Build localized **Faecal Sludge Treatment Plants (FSTPs)** where central sewage treatment plants (STPs) are too far away (greater than 15–20 km).
 - Mandate **GPS-equipped desludging trucks** to prevent illegal dumping.

- Cross-subsidize desludging costs (ranging from ₹1,500 to ₹6,000 per trip) by integrating them into monthly water bills via a small **sanitation levy**.

IV. Scaling Decentralized Wastewater Technologies

- **Support Innovation:** Move modular, plug-and-play water recycling technologies (which recover over 95% of water with minimal land/energy footprint) out of incubation into the mainstream market.
- **Policy Enablers:** Create an enabling market for treated used water using **single-window clearances** for green industries, public procurement mandates, and government-backed off-take guarantees.

V. Strategic Infrastructure & Blended Finance

- **Innovative Financing:** Mobilize funds using blended finance structures that combine domestic state risk-bearing with concessional international loans (e.g., World Bank) tied to clear performance/disbursement indicators.

Case Studies & Best Practices

Sultanpur Village- Multi-stakeholder coordination platform (Engineers + Panchayat + Residents). Demonstrates how local accountability fixes institutional coordination failures.

Maharashtra- Community-driven sanitary inspections of local water sources. Ensures long-term sustainability and safety of drinking water sources.

Government Initiatives

- **AMRUT 2.0 (Atal Mission for Rejuvenation and Urban Transformation):** Aims to make all statutory towns water-secure by ensuring universal tap water connectivity and promoting the reuse of treated wastewater.
- **Swachh Bharat Mission-Urban (SBM-U) 2.0:** Focuses explicitly on complete fecal sludge, septage, and wastewater management—particularly targeting smaller towns with populations under 1 lakh to prevent illegal waste dumping.
- **Jal Jeevan Mission (JJM) - Rural & Extended Sustainability:** Targets 100% functional household tap connections across rural-urban fringes while utilizing 15th Finance Commission tied grants to secure long-term water source sustainability.

Conclusion

Transforming India's peri-urban "missing middle" into climate-resilient, water-secure hubs is vital to power sustainable economic growth and build liveable, equitable smart-city ecosystems by 2047.

Q. Examine the governance and infrastructure challenges associated with water and sanitation management in peri-urban India. Suggest a roadmap for building water-secure peri-urban settlements. (15 Marks)

2.1. ENVIRONMENT

2.1.1. HEATWAVES IN INDIA: BEYOND CLIMATE CHANGE, THE URBAN HEAT CHALLENGE

Context:

Sri Ganganagar (Rajasthan) recently recorded 48°C, marking the hottest temperature in India for the year amid a delayed monsoon.

Introduction

A heatwave is a period of abnormally high temperatures, crossing specified regional thresholds, that lasts for consecutive days and poses severe health and environmental risks.



Understanding the Heatwave Crisis in India

Rising Frequency and Intensity

- According to India Meteorological Department (IMD) data:
 - Heatwave frequency has increased by **0.1 days per decade** since 1961 in India's Core Heatwave Zone.
 - Maximum heatwave duration has increased by **0.55 days per decade**.
- The period **2015–2025** has been identified by the World Meteorological Organization (WMO) as the warmest 11-year period on record.

Core Reasons for Heatwaves in India

- **Anticyclonic Circulation:** High-pressure systems over Central and Northwest India cause sinking air that compresses and heats up, while clearing cloud cover to let intense sunlight directly hit the ground.
- **Advection of Hot Dry Air:** Scorching winds blowing from the arid regions of Pakistan and Middle East Asia (such as the Loo) blanket Northwest and Central India in a thick layer of heat.
- **The Urban Heat Island (UHI) Effect:** Massive concretization, asphalt surfaces, and the waste heat pumped out by millions of air conditioners trap thermal energy, making Indian cities up to 10°C hotter than surrounding rural areas.
- **Severe Deforestation and Loss of Moisture:** Rapid depletion of urban green cover and drying water bodies eliminate the natural cooling effects of shade and evapotranspiration, allowing surfaces to bake rapidly.
- **Global Climate Change and El Niño:** Rising greenhouse gas emissions systematically raise baseline global temperatures, while periodic El Niño phenomena alter monsoon patterns, delay rains, and prolong extreme summer conditions.

Why Heat is More Lethal in Indian Cities

- **The Urban Heat Island Effect:** Massive concrete and asphalt surfaces absorb solar radiation all day and trap heat at night, keeping cities up to 10°C hotter than surrounding rural areas.
- **Surging Microclimate Humidity:** High levels of concrete cover seal the soil, preventing natural ground evaporation and driving up local humidity, which stops human sweat from evaporating and cooling the body.
- **The Air-Conditioning Paradox:** Thousands of air conditioners running simultaneously pump immense amounts of hot waste air directly onto the streets, making the outdoor environment dangerously hot for everyone else.
- **High Concentration of Vulnerable Workers:** A vast majority of urban populations consist of informal laborers, street vendors, and delivery workers who must work directly under the sun with zero access to cooling or shade.

Core Impacts of Heatwaves

- **Severe Public Health Crises:** Extreme heat leads to spikes in heat exhaustion, fatal heatstrokes, and dehydration, while placing an immense burden on rural and urban healthcare infrastructure.
- **Stark Economic and Productivity Losses:** Millions of informal outdoor workers experience drastically reduced working hours, leading to a direct drop in daily wages and overall macroeconomic productivity.
- **Agricultural and Food Security Risks:** Prolonged heatwaves dry up topsoil moisture, scorch standing crops, and deplete water bodies, resulting in lower crop yields and localized spikes in food inflation.
- **Severe Power Grid and Water Stress:** A soaring demand for cooling drives electricity consumption to record highs—causing frequent grid failures—while accelerating the rapid depletion of critical drinking water reservoirs.
- **Exacerbation of Urban Climate Inequity:** The thermodynamic waste heat from air-conditioned buildings actively worsens outdoor conditions, disproportionately punishing the urban poor who lack access to cooling tech.

Challenges in Current Response to Heatwaves

- **Treating Heat as an Episodic Disaster:** Policy responses treat heatwaves as brief, seasonal weather anomalies rather than structural, economy-wide risks that permanently alter urban and labor landscapes.
- **Widespread Non-Enforcement of Labor Laws:** While structural Heat Action Plans (HAPs) exist on paper, municipal and labor authorities routinely fail to enforce mandatory afternoon rest-intervals for vulnerable outdoor workers.
- **The Vicious Cycle of Technological Fixes:** State adaptation measures rely heavily on short-term fixes like scaling up air-conditioning, which actively intensifies outdoor street heat through thermodynamic waste emissions.

- **Severe Under-Reporting of the True Health Burden:** Fragmented data collection and a lack of public-private tracking systems mean most heat-related morbidity, chronic kidney strain, and deaths go unrecorded or misclassified.
- **Deep Financial Inequity in Adaptive Capacity:** Parametric heat insurances and government cooling infrastructure underperform because impoverished informal laborers cannot afford to forfeit daily wages to seek shelter.

Way Forward

- **Enforce Mandatory Climate-Driven Labor Frameworks:** Legally bind employers to halt outdoor informal labor when local wet-bulb temperatures cross safe physiological thresholds, backing it with spot inspections.
- **De-congest Cities with Cool Roofs and Urban Forests:** Mandate light-reflective materials on public buildings and expand native Miyawaki micro-forests to actively dismantle urban heat islands.
- **Deploy Targeted Fiscal Allocations for Heat Adaptation:** Establish dedicated national and state budget heads to fund public hydration booths, subsidized cooling centers, and direct wage compensation for lost workdays.
- **Overhaul Building Codes for Climate Resilience:** Revise municipal bylaws to strictly enforce passive cooling designs, proper cross-ventilation, and strict caps on glass-and-concrete architectures.
- **Institutionalize Heat Action Plans as Regular Urban Planning:** Transition Heat Action Plans from temporary emergency responses into year-round, legally enforceable mandates integrated into master city planning.

Conclusion

India must transition from **reactive emergency relief** to **structural urban resilience**. Integrating **climate-calibrated building codes**, enforcing **occupational heat thresholds**, and securing **dedicated fiscal budgeting** are imperative to protect vulnerable populations and ensure sustainable economic productivity.

Q. Heatwaves are emerging as a major climate and public health challenge in India. Discuss the role of climate change and urbanization in intensifying heatwave impacts. Suggest measures to enhance heat resilience in Indian cities. 15 Marks

2.2. INTERNAL SECURITY

2.2.1. AI-GENERATED CONTENT, MISINFORMATION AND NEED FOR REGULATION IN INDIA

Context:

As India marches towards **Viksit Bharat 2047**, establishing leadership in Artificial Intelligence (AI) is a pillar for economic growth and technological sovereignty. However, the rise of advanced multimodal generative AI tools shifts the focus from purely economic potential to severe risks concerning **misinformation, digital deceit, and institutional erosion**.



The "New Era" of Generative AI: Core Challenges

- **Hyper-Realistic Fabrication:** Advanced tools generate text-heavy images and documents that are completely indistinguishable from original camera shots or scanned originals.
- **The Mobile Screen Vulnerability:** Small smartphone displays make structural verification difficult, forcing users to readily accept sophisticated fakes as real.
- **Asymmetric Fact-Checking Burden:** Fabricated credentials and research papers require tedious database verification that everyday users are highly unlikely to perform.
- **The "Liar's Dividend" Effect:** The absolute realism of fakes leads to a trust crisis where genuine photographs, videos, and institutional documents are easily dismissed as fabricated.
- **Institutional and Judicial Erosion:** The surge in identity theft, fake academic certificates, and unverified AI legal arguments directly threatens academic credibility, celebrity rights, and court sanctity.

Multi-Dimensional Implications

- **Institutional Credibility:** Academic systems and publishers face severe identity challenges due to the seamless fabrication of mark sheets, degree certificates, and research papers.
- **Internal Security & Crime:** Financial fraud and identity theft have multiplied exponentially as sophisticated deepfakes make digital deceit easy to pull off.
- **Legal & Judicial Sanctity:** Courts face compromised evidence and unverified pleadings, forcing the judiciary to penalize lawyers who submit hallucinated AI legal arguments.
- **Erosion of Personality Rights:** Celebrities are flooding High Courts with petitions to protect their commercial likeness, voice, and name from unauthorized synthetic replication.
- **Demographic Trust Deficit:** Public faith in media and information ecosystems collapses as the line between verified facts and machine-generated fiction completely dissolves.

The Regulatory Dilemma: The Critical Crossroads

- **The Growth vs. Safety Trade-off:** India must aggressively foster AI innovation to achieve its *Viksit Bharat 2047* economic goals while simultaneously building guardrails to stop systemic digital manipulation.
- **Chilling Effect of Over-Regulation:** Imposing overly rigid legal constraints early on risks stifling domestic tech startups, driving away venture capital, and derailing India's ambition to become a global AI hub.

- **Catastrophic Cost of Under-Regulation:** Leaving the digital ecosystem unchecked creates accountability gaps that allow identity theft, deepfakes, and state-backed misinformation to spread unchecked.
- **Piecemeal vs. Holistic Governance:** Transitioning from reactive, platform-specific intermediary rules (like the IT Rules) to a comprehensive, forward-looking legislative framework that handles rapidly evolving AI architectures.

India's Current Regulatory Footprint (IT Rules, 2026)

- **Statutory Target (SGI):** The rules formally define and target Synthetically Generated Information (SGI)—including deepfakes, voice cloning, and AI-altered media—while explicitly exempting good-faith, routine creative editing.
- **Hyper-Accelerated Takedowns:** Digital intermediaries must remove unlawful synthetic content within a tight **3-hour window** from receiving a government or court notice, which drops to **2 hours** for high-risk deepfakes involving non-consensual nudity or impersonation.
- **Mandatory Transparency & Traceability:** Platforms are strictly required to enforce prominent, continuous on-screen labels for AI-generated visual media and embed unalterable provenance metadata to trace digital content back to its original source.

Way Forward

- **Enact Dedicated Legislation:** Move beyond piecemeal IT rules to draft a comprehensive, standalone AI Governance Act that explicitly defines accountability, liability, and deepfake offenses.
- **Implement Ethical Baselines:** Enforce a mandatory "Code of Ethics by Design" for AI developers to prevent platforms from generating content that systematically undermines public institutional trust.
- **Build Technical Defenses:** Invest heavily in indigenous, sovereign AI detection tools and mandate uniform cryptographic watermarking on all synthetically altered media at the point of creation.
- **Cultivate Public Cognitive Defense:** Launch nationwide digital and AI literacy campaigns to train citizens to critically evaluate, fact-check, and verify content before sharing it.
- **Establish a Sovereign Regulatory Body:** Create a centralized, expert-led national AI regulatory authority to agilely monitor emerging tech threats without choking industrial innovation.

Conclusion

To achieve **Viksit Bharat 2047**, India must harmonize technological ambition with digital safety. By enforcing robust legislative guardrails, ethical AI baselines, and proactive public literacy, the nation can lead global innovation while preserving institutional trust and truth.

Q. "While Artificial Intelligence offers immense opportunities for economic growth and innovation, it also poses serious challenges related to misinformation, identity theft and digital manipulation." Discuss the need for a balanced regulatory framework for AI in India. (15 Marks)

Scan to know more about our courses...



IAS 2-Year GS PCM



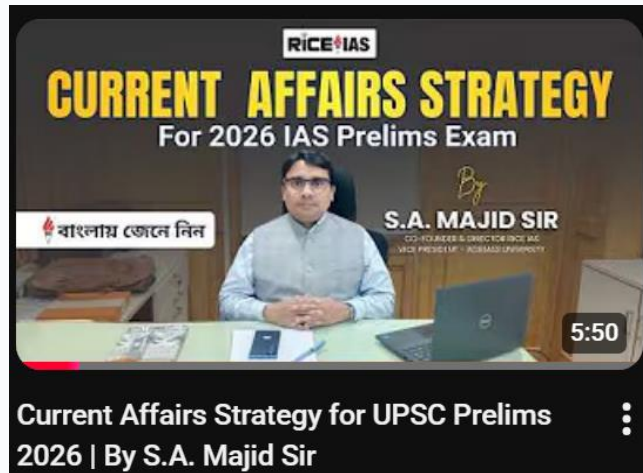
IAS 10-Month GS PCM



Degree + IAS



Prelims Test Series



[Click here to watch this video](#)